Medical Marijuana Dispensary License Application

Department of Health, Office of Health Care Assurance

Criteria 1. Ability to operate a business, including but not limited to education, knowledge, and experience	
Criteria 2. Plan for operating a medical marijuana dispensary in the county for which the applicant is seeking a license, including but not limited to a timeline for opening a retail dispensing location	
Criteria 3. Proof of financial stability and access to financial resources	
Criteria 4. Ability to comply with the security requirements of this chapter and section 329D-7, HRS	
Criteria 5. Capacity to meet the needs of qualifying patients	
Criteria 6. Ability to comply with criminal background check requirements pursuant to this chapter and sections 329D-7, 329D-12, and 846-2.7, HRS	
Criteria 7. Ability to comply with the requirements in this chapter and chapters 329 and 329D, HRS, for inventory tracking, security, and dispensing limits for qualifying patients	
Criteria 8. Ability to maintain confidentiality of a qualifying patient?s medical condition, health status, and purchases of marijuana or manufactured marijuana products	
Criteria 9. Ability to conduct or contract for certified laboratory testing on marijuana and manufactured marijuana products pursuant to this chapter and sections 329D-7 and 329D-8, HRS	
Criteria 10. Ability to comply with requirements for packaging, labeling, and chain of custody of products	
Criteria 11. A plan for secure disposal of marijuana and manufactured marijuana products	
Criteria 12. Ability to ensure product safety, in accordance with this chapter and sections 329D-8, 329D-10, 329D-11, HRS	
Criteria 13. No history of having a business license revoked.	
Total Merit Criteria Points Awarded to Applicant	

HELPFUL INFORMATION FOR FILLING OUT THIS FORM:

1. You can save your work on this form by checking the 'Save my progress and resume later' box and then clicking the 'Save form and resume later' button a IMPORTANT: Remember to do this every time you leave your application or you will lose the information you have entered.

2. To keep your information secure, remember to log out of your application each time you finish working on it.

3. Use a current version of Google Chrome or Firefox browser when completing this form.

4. Save the form every 20 minutes to avoid timing out. When entering information in a spreadsheet, save and exit the form first.

5. Do not include single or double quote marks (' or ") or more than one period (.) in your document names.

INSTRUCTIONS FOR THE MEDICAL MARIJUANA DISPENSARY LICENSE APPLICATION

Before applying for a medical marijuana dispensary license, applicants must acknowledge that they have read the statute and administrative rules on medic to be redirected to the statute and administrative rules.

Hawaii Revised Statute (HRS) 329D	✔ I acknowledge that I have read Chapter 329D, HRS (http://health.hawaii.gov/m content/blogs.dir/93/files/2015/12/2015-329D-HRS.pdf), and I am aware of the ap
Hawaii Administrative Rules (HAR) Chapter 11-850	✔ I acknowledge that I have read HAR, Chapter 11-850 (http://health.hawaii.gov/ content/blogs.dir/93/files/2015/12/Dispensary-Rules-Chapter-11-850-signed-by- licensing requirements.
Disclaimer:	✔ I understand that the use and possession of marijuana is illegal under federal law, Chapters 329 and 329D, HRS.

MINIMUM REQUIREMENTS

All individual applicants and applying entities must meet the requirements listed below or the application will not be accepted. Applicants must attach proof sections.

INDIVIDUAL APPLICANT

*** Individual applicant shall be at least 21 years old.**
*** Shall be a legal resident of the State of Hawaii for at least five (5) uninterrupted years immediately preceding the date of the license application.**
*** Shall not have any felony convictions or any other disqualifying background history.**
*** Shall be authorized by the applying entity to submit an application for a dispensary license, and act as the primary point of contact with the department.**

APPLYING ENTITY

*** The applying entity must be organized under the laws of the State of Hawaii.**
*** Have a Hawaii tax identification number.**
*** Have a Department of Commerce and Consumer Affairs Business Registration Division number and suffix.**
*** Have a federal employer identification number.**
*** Not be less than fifty-one percent held by Hawaii legal residents or entities wholly controlled by Hawaii legal residents who have been legal residents for n application was submitted.**
*** Have financial resources under its control of not less than $1,000,000 for each license applied for, plus not less than $100,000 for each retail dispensing loc bank statements or escrow accounts, and those financial resources shall have been under the control of the applying entity for not less than ninety days im**
*** Be composed of owners, principals, or members, each of whom is not less than twenty-one years of age and has no felony convictions or any other disqua**

APPLICATION FEE

The license application fee of $5,000 by certified check or cashier's check payable to the State of Hawaii, Department of Health, is part of the minimum requi Medical Marijuana Dispensary Licensing, Room 337, 601 Kamokila Blvd., Kapolei, HI 96707 or be postmarked by 4:30 pm Hawaii Standard Time on the last d

Please note the application number on the check. This is found in the heading of the email confirmation you receive upon submittal, and is also visible wher

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NOTE: ALL QUESTIONS MUST BE ANSWERED TO SUBMIT YOUR APPLICATION UNLESS OTHERWISE INDICATED.

SECTION A: APPLICATION FOR COUNTY

NOTE: An applicant may apply for a license for more than one county, but may only receive one license. Indicating here that you are applying for a license f license in another county; separate applications must be submitted. The applicant and applying entity must complete a separate application with all require refundable application fee of $5,000 for each application. The financial resources required ($1,000,000 plus not less than $100,000 for each retail dispensing can only apply toward one license, if granted.

1. For which county are you requesting a license?	County of Hawaii
2. Are you also applying for a dispensary license in another county?	No
2a. If YES, what other county or counties are you applying for a license? (NOTE: A separate application and check will be required for each county.)	

SECTION B: INDIVIDUAL APPLICANT INFORMATION

GENERAL INFORMATION

3. Legal Name of Applicant	Shelby Anne Floyd

4. Upload Proof of Legal Name of Applicant **Scan and submit a certified copy of AT LEAST ONE (1) of the following:** *** Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;** *** Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;** *** Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;** *** Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);** *** Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;** *** Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport;** *** Certified copy of the Certificate of Naturalization issued by DHS, Form N-550 or Form N-570;** *** Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;** *** Court-issued, certified copy of a divorce decree;** *** Certified copy of a legal change of name order**	[redacted]
5. Date of Birth (must be at least 21 years old)	[redacted]
6. Upload Proof of Date of Birth of Applicant **Scan and submit a certified copy of AT LEAST ONE (1) of the following:** *** Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;** *** Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;** *** Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;** *** Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);** *** Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;** *** Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport;** *** Certificate of naturalization issued by DHS, Form N-550 or Form N-570;** *** Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;** *** Valid, unexpired driver's license or government issued photo identification card.**	[redacted]
7. Social Security No. or Identifier No. (last 4 digits only):	[redacted]
8. Applicant's Address	[redacted] United States
9. Daytime Phone No.	[redacted]
10. Fax No.	[redacted]
11. Email	[redacted]
CRIMINAL HISTORY INFORMATION	
12. Has the individual applicant ever been convicted of a felony? If YES, STOP, you are not an eligible applicant.	[redacted]
13. Has the individual applicant ever been convicted of a crime?	[redacted]
13a. If YES, please describe (e.g., conviction, date, disposition, etc.)	
14. Has the individual applicant ever been arrested?	[redacted]
14a. If YES, please describe (e.g., date, disposition, etc.)	

Obtain a Criminal History Report **Copy the Validation code from an eCrim report for the individual applicant generated by the Hawaii Criminal Justice Data Center no earlier than December 12, 2015 at 8:00 a.m. (Hawaii-Aleutian Standard Time).** **Visit** eCrim.ehawaii.gov (https://ecrim.ehawaii.gov/ahewa/) **to obtain the eCrim report.** **15. Enter the eCrim Validation Code here:**	[redacted]
16. NOTICE: Pursuant to Chapter 329D HRS and Chapter 11-850 HAR, applicants are required to provide consent to a background check, including fingerprinting, to be conducted by the Department of Health or its designee. **Further information and instructions will be provided on http://health.hawaii.gov/medicalmarijuana/. If the information and instructions are not yet posted, please check the website often.**	✔ I consent
RESIDENCY INFORMATION 17. Is the Applicant a legal resident of the State of Hawaii for at least five years? If NO, STOP, you are not an eligible applicant.	Yes
18. Upload Proof of Hawaii Residency: **Scan and submit AT LEAST ONE (1) of the following source documents as proof of Hawaii state residency for at least five years:** *** State of Hawaii tax return Form N-11 without schedules, worksheets, or attachments, and redacted to remove all financial information and all but the last four digits of the individual's social security number;** *** Evidence of voter registration;** *** Ownership, lease, or rental documents for place of primary domicile;** *** Billing statements including utility bills; or** *** Vehicle registration.**	[redacted]
19. Authorized to Act on Behalf of Applying Entity **Scan and submit evidence of the authority of the individual to act on behalf of the applying entity, and supporting documentation (e.g. corporate resolution, bylaws, articles of incorporation):**	[redacted]
SECTION C: APPLYING ENTITY INFORMATION	
20. Name of Applying Entity	Hawaiian Ethos LLC
21. Applying Entity's Business Address	65-1158 Mamalahoa Highway Suite 8A PMB 260 Kamuela , Hawaii 96743 United States
22. Entity Phone #	[redacted]
23. Entity Email	[redacted]
24. Entity Fax #	[redacted]
25. Is the applying entity organized under the laws of the State of Hawaii? If the answer is 'NO', STOP, you are not an eligible applicant.	Yes
26. Upload Applying Entity Incorporation or Business Status Documentation: **Upload a certified copy of applying entity's incorporation documents in the State of Hawaii.** **Visit** Hawaii Business Express (https://hbe.ehawaii.gov/documents/search.html) **for available documents.**	[redacted]
27. Provide the entity's Hawaii Department of Commerce & Consumer Affairs Business Registration Division Number & Suffix (file number). **Visit** Hawaii Business Express - Business Name Search (https://hbe.ehawaii.gov/documents/search.html) **to locate your entity's file number.**	13938C5

28. Upload a copy of the entity's Certificate of Good Standing from the Department of Commerce and Consumer Affairs.	[redacted]
29. Hawaii Tax Identification Number: **Provide the number along with a copy of the State of Hawaii Tax Identification Number (see question immediately below).** **Visit** Tax ID Search (https://dotax.ehawaii.gov/tls/app) **for this information.**	[redacted]
30. Upload a copy of the entity's State of Hawaii Tax Identification document.	[redacted]
31. Federal Employer Identification Number: Provide the Federal Employer Identification Number.	[redacted]
32. Upload a copy of the entity's Federal Employer Identification Number document.	[redacted]
OWNER(S), PRINCIPAL(S), & MEMBER(S) INFORMATION	
33. Enter the total number of Owner(s), Principal(s), and Member(s) of the applying entity here:	11
34. Upload Owner, Principal, and Member Information Spreadsheet **INSTRUCTIONS: Download the EXCEL spreadsheet below, enter the following information in the format required, and upload it to attach it to your application.** **Information to be provided:** **1) List of Owners, Principals, and Members of the Applying Entity** **For each Owner, Principal, and Member of the Applying Entity:** **A) Name, Address, Phone number, and Email Address** **B) Each individual's percent interest in the company** **C) State of primary residence** **D) Number of years each person has lived in Hawaii (the most recent, uninterrupted number of years that the person has been a resident), and** **E) A criminal background check for each Owner, Principal, and Member.** **Copy the validation code from an eCrim report for the individual generated by the Hawaii Criminal Justice Data Center no earlier than December 12, 2015 at 8:00 a.m. (Hawaii-Aleutian Standard Time).** **Visit** eCrim.ehawaii.gov (https://ecrim.ehawaii.gov/ahewa/) **to obtain the eCrim report.** **Please include a signed statement by each Owner, Principal, or Member certifying that the information is complete and accurate. Upload the signed statements in the following question (35.)** **2) Other Businesses Holding an Interest** **If there are businesses that hold an interest in the company, list the business names and percent interest on a separate tab on the spreadsheet.** Download Owner Principal Member Information Spreadsheet (/mmjdisp/templates/Owner_Principal_Member_Report.xls)	[redacted]

35. Upload Proof of Name, Date of Birth, and Residency for each Officer, Principal, or Member listed on the spreadsheet

1) Proof of Legal Name of Each Owner, Principal, and Member:

Scan and submit a certified copy of AT LEAST ONE (1) of the following:

*** Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;**
*** Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;**
*** Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;**
*** Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);**
*** Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;**
*** Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport;**
*** Certificate of naturalization issued by DHS, Form N-550 or Form N-570;**
*** Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;**
*** Court-issued, certified copy of a divorce decree;**
*** Certified copy of a legal change of name order;**

2) Proof of Date of Birth

Scan and submit a certified copy of AT LEAST ONE (1) of the following:

*** Certified copy of a birth certificate or marriage certificate filed with a state office of vital statistics or equivalent agency in the individual's state of birth or marriage;**
*** Valid, unexpired U.S. passport [inside cover and first page only] or U.S. passport card;**
*** Consular report of birth abroad Form FS-240, DS-1350 or FS-545 issued by the U.S. Department of State;**
*** Valid, unexpired permanent resident card (Form I-551) issued by the Department of Homeland Security (DHS) or the U.S. Citizenship and Immigration Services (USCIS);**
*** Unexpired employment authorization document issued by the DHS, Form I-766 or Form I-688B;**
*** Unexpired foreign passport with the following: a valid, unexpired U.S. visa affixed, and an approved I-94 form documenting the applicant's most recent admittance into the United States or a DHS admittance stamp on the passport;**
*** Certificate of naturalization issued by DHS, Form N-550 or Form N-570;**
*** Certificate of citizenship, Form N-560 or Form N-561, issued by DHS;**
*** Valid, unexpired driver's license or government issued photo identification card.**

3) Proof of Hawaii Residency:

Scan and submit AT LEAST ONE (1) of the following source documents as proof of Hawaii state residency for at least five years:

*** State of Hawaii tax return Form N-11 without schedules, worksheets, or attachments, and redacted to remove all financial information and all but the last four digits of the individual's social security number;**
*** Evidence of voter registration;**
*** Ownership, lease, or rental documents for place of primary domicile;**
*** Billing statements including utility bills; or**
*** Vehicle registration.**

Document size limit is 2 MB. Up to 10 documents may be attached.

SECTION D: FINANCIAL INFORMATION

36. FINANCIAL RESOURCES GENERAL INFORMATION

INSTRUCTIONS: Download the EXCEL spreadsheet below, enter the following information in the format required, and upload it to attach it to your application.

Information to be provided:
1) Financial Resources the applying entity has under its control. List each financial resource, amount of the resource (round to nearest dollar, no cents), and verifying information (account type, account number, account name, name of financial institution, applicant contact information) as shown on the spreadsheet

2) Date Resource/Dollar amount under the applying entity's control

Download Financial Resources General Information Spreadsheet (/mmjdisp/templates/Financial_Resources_General.xls)

Upload the completed Financial Resources General Information Spreadsheet

[redacted]

37. Upload Financial Resources General Information Supporting Source Documents

Upload supporting source documents, i.e. bank statements, escrow account information, balance sheets etc. Supporting source documents for Financial Resources General Information must be provided as proof of the financial resources.

Document size limit is 10 MB. Up to 5 documents may be attached.

[redacted]

38. FINANCIAL RESOURCES -
RETAIL DISPENSING LOCATION INFORMATION

INSTRUCTIONS: Download the EXCEL spreadsheet below, enter the following information in the format required, and upload it to attach it to your application.

Data to be provided:
1) Financial Resources the applying entity has under its control for each retail dispensing location allowed (2 locations maximum)

2) Dollar Amount (total aggregate for each retail dispensing location shall be not less than $100,000, or $200,000 for 2 locations)

3) Date Resource/Dollar amount under the applying entity's control (resources have been under the Applying Entity's control for not less than 90 days)

Download Financial Resources - Retail Dispensing Location Information Spreadsheet (/mmjdisp/templates/Financial_Resources_Retail_Dispensing_Location.xls)

Upload the completed Financial Resources - Retail Dispensing Location Information Spreadsheet

[redacted]

39. Upload Retail Dispensary Location Supporting Source Documents

Upload supporting source documents, i.e. bank statements, escrow account information, balance sheets etc. Supporting source documents for retail dispensary locations must be provided as proof of the financial resources.

Document size limit is 10 MB. Up to 5 documents may be attached.

[redacted]

SECTION E: MERIT INFORMATION - OPTIONAL

Responses for each criteria shall be no longer than specified for each criteria, double spaced, font size no smaller than 12, and margins no less than 1 inch

(1) Ability to operate a business, including but not limited to education, knowledge, and experience with:
(A) Regulated industries;
(B) Agriculture or horticulture;
(C) Commercial manufacturing;
(D) Pharmaceutical companies;
(E) Operating or working in a medical marijuana dispensary business;
(F) Creating and implementing a business plan, including a timeline for opening a business;
(G) Creating and implementing a financial plan;
(H) Retail sales;
(I) Secure inventory tracking and control;
(J) Protecting confidential customer information;
(K) Owning or managing a business that required twenty four hour security monitoring; and
(L) Any other experience the applicant considers relevant;

Response to (1) shall be no longer than five (5) pages.

Upload Response to (1)

[redacted]

(2) Plan for operating a medical marijuana dispensary in the county for which the applicant is seeking a license, including but not limited to a timeline for opening a retail dispensing location;

Response to (2) shall be no longer than five (5) pages.

Upload Response to (2)

[redacted]

(3) Proof of financial stability and access to financial resources, including but not limited to:
(A) Legal sources of finances immediately available to begin operating a dispensary;
(B) A summary of financial statements in businesses previously or currently owned or operated by the applicant;
(C) A financial plan for operating a medical marijuana dispensary in Hawaii;
(D) Good credit history; and
(E) History of bankruptcy by the applicant or entities owned or operated by the applicant;

Response to (3) shall be no longer than five (5) pages.

Upload Response to (3)

[redacted]

(4) Ability to comply with the security requirements of Chapter 11-850 and Section 329D-7, HRS;

Response to (4) shall be no longer than five (5) pages.

Upload Response to (4)

[redacted]

(5) Capacity to meet the needs of qualifying patients, including but not limited to:
(A) Educating patients on how marijuana can be used to assist patients with debilitating medical conditions and about the marijuana and manufactured marijuana products that will be available in the applicant's retail dispensing locations;
(B) Producing and maintaining a supply of marijuana that is sufficient to meet the needs of qualifying patients;
(C) Providing safe, accessible retail dispensing locations; and
(D) Measuring and improving customer satisfaction;

Response to (5) shall be no longer than five (5) pages.

Upload Response to (5)

[redacted]

(6) Ability to comply with criminal background check requirements pursuant to Chapter 11-850 and Sections 329D-7, 329D-12, and 846-2.7, HRS;

Response to (6) shall be no longer than three (3) pages.

Upload Response to (6)

[redacted]

(7) Ability to comply with the requirements in Chapter 11-850 and Sections 329 and 329D, HRS, for inventory tracking, security, and dispensing limits for qualifying patients; **Response to (7) shall be no longer than five (5) pages.** **Upload Response to (7)**	[redacted]
(8) Ability to maintain confidentiality of a qualifying patient's medical condition, health status, and purchases of marijuana or manufactured marijuana products; **Response to (8) shall be no longer than three (3) pages.** **Upload Response to (8)**	[redacted]
(9) Ability to conduct or contract for certified laboratory testing on marijuana and manufactured marijuana products pursuant to Chapter 11-850 and Sections 329D-7 and 329D-8, HRS; **Response to (9) shall be no longer than three (3) pages.** **Upload Response to (9)**	[redacted]
(10) Ability to comply with requirements for packaging, labeling, and chain of custody of products; **Response to (10) shall be no longer than three (3) pages.** **Upload Response to (10)**	[redacted]
(11) A plan for secure disposal of marijuana and manufactured marijuana products; **Response to (11) shall be no longer than five (5) pages.** **Upload Response to (11)**	[redacted]
(12) Ability to ensure product safety, in accordance with Chapter 11-850 and Sections 329D-8, 329D-10, 329D-11, HRS. **Response to (12) shall be no longer than five (5) pages.** **Upload Response to (12)**	[redacted]
(13) No history of having a business license revoked. **Response to (13) shall be no longer than three (3) pages.** **Upload Response to (13)**	[redacted]
SECTION F: CERTIFICATION AND SUBMITTAL	
Certification	✔ I hereby certify under penalty of law that the information submitted as part of this ap
By checking the box above and entering the individual applicant's name below, the applicant has electronically signed this application.	
Applicant Name	Shelby Anne Floyd
If you have previously submitted an application and this is a revision, enter the unique entry number(s) of your previous submission(s) here.	
User ID	46234452
User Email	[redacted]

Entry Info

Date Created	29 Jan 2016 - 01:23:27 PM
Date Updated	
IP Address	

Hawaiian Ethos LLC.

Hawaiian Ethos LLC. is uniquely qualified to be the safest, most reliable source of medical marijuana for Hawai'i patients living on Hawai'i Island. Its mission is to ensure qualifying Hawai'i Island residents access to evidence-based treatment choices for medical-grade cannabinoids. Its core team is composed of industry experts in law, medicine, pharmacology, horticulture, and business. Hawaiian Ethos has also partnered with leading industry experts and vendors in the areas of security, patient confidentiality, commercial manufacturing, laboratory services, cultivation, and software engineering. Our strategic advisors are experienced individuals in retail business management and patient-centric dispensary operations. A medical advisory board will be formed to provide clinical guidance and oversight to the organization. With its support, the company will endeavor to forward our understanding of cannabis-based medicine through informed patient-driven research (See Appendix: Research Endeavors Pg297-300). The cultivation team, which works under our exclusive growing and manufacturing subcontractor, La'au Pono Inc, is managed by experts with over 45-years of combined experience in agronomy, legal and medical marijuana cultivation. (See Appendix Hawaiian Ethos Mission & Vision: Pg 3-4 & Appendix: Letters of Support Pg 301-304)

Organizational Structure

Hawaiian Ethos LLC is a manager-managed entity, with an executive team consisting of three of its members, advised by a Medical Advisory Panel and a Compliance Committee. It has entered into a joint-venture with Dragononi, Inc. (dba Hawaiian Ola), a manufacturer of consumer organic Hawaiian agricultural products, to create La'au Pono Inc. which Hawaiian Ethos controls and with which it has contracted to exclusively grow, process, package, label and

deliver medical marijuana and medical marijuana products to Hawaiian Ethos's licensed dispensaries. (See Appendix Hawaiian Ethos Organization Chart: Pg 5-6 & Appendix:)

Executive Committee

Shelby Floyd - *Manager for Hawaiian Ethos LLC:* Ms. Floyd holds a J.D. from Columbia University and has over 40 years of experience as a practicing lawyer. As a Hawai'i resident since 1976 Ms. Floyd co-founded the Honolulu based law firm, Alston Hunt Floyd & Ing, Attorneys at Law, which grew to be one of the largest in the State of Hawai'i with over 100 employees, and annual client revenues in excess of $20,000,000.

Vernon Oi PhD - *Chief Science Officer:* Dr. Oi holds a Ph.D. from Stanford University School of Medicine Department of Genetics where he was also awarded several landmark patents—collectively valued at over $1.2B. In the private sector, Dr. Oi held a position as Director and Vice President of Research and Development at Becton Dickinson Monoclonal Center and Immunocytometry Systems where he managed hundreds of employees in research and clinical diagnostics and also managed the research and development of clinical drug trials

John Osterhaus - *Business Advisor:* As Vice President at Costco Wholesale Corporation, Mr. Osterhaus' served as general counsel for Costco and also managed the retail optical and hearing aid businesses for its US stores, which, entailed creating and implementing business plans and creating specific timelines for opening the new operations. (See Appendix: Executive Committee: Pg 7-11)

Cultivation Team – La'au Pono Inc.

Bob Shaffer - *Master Cultivator:* Mr. Shaffer is a horticulturist, agronomist, viticulturist, and soil culture engineer. Mr. Shaffer has been consulting and training farmers in sustainable, science-based farming for over 35-years. (See Appendix: Cultivation Team Pg 16-33)

Kris Jacobson – *Cultivation Facility Manager:* Mr. Jacobson brings over 10-years of intensive experience [redacted] consulting for legal commercial medical cannabis producers operating in California. He specializes in indoor and green house environments.

Operation Management Team

Malia Bolton - *Dispensary Operations Manager:* Ms. Bolton currently manages operations for The Kona Coffee & Tea Co, which includes overseeing their multiple retail sales locations, as well as bulk sales, creating a employee manuals with detailed Standard Operating Procedures (SOP), managing a training program, and maintaining regulatory compliance with the Department Of Health. (See Appendix Operations Management Team: Pg 12-15)

Zachary Taffany - *Manufacturing Operations*: For over 16-years Mr. Taffany has managed operations for a variety of organizations in the consumer goods, technology, and commercial manufacturing, specializing in quality control and process development.

Strategic Advisors

Stacey Marie Kerr MD - *Family Physician, Cannabis Educator*: As a member of the Executive Board of the Society of Cannabis Clinicians, Dr. Kerr co-created the first comprehensive, 12 unit CME-certified curriculum in Clinical Cannabinoid Medicine, available to physicians worldwide as an online learning course. Dr. Kerr will provide guidance to Hawaiian Ethos on matters related to creating patient centric policies for the dispensaries.

Fred Floyd RPh - *Pharmacist, Security Advisor:* Mr. Floyd is a registered pharmacist in seven states and has over 30-years of experience interfacing with pharmaceutical companies and working in a variety of highly regulated, secure dispensary settings including hospital, nuclear, and penal institution pharmacies. (See Appendix Strategic Advisors Pg 287-296)

Khalil Moutawakkil - *Dispensary Operations Advisor:* Khalil is the founder of *KindPeoples*, a pair of highly successful dispensaries in Northern California. Mr. Moutawakkil is a speaker and vocal advocate for safe patient access. Mr. Moutawakkil will lend knowledge from his experience operating a medical marijuana dispensary business, which required 24-hour security monitoring to Hawaiian Ethos LLC.

Additional Oversight

Medical Advisory Board: Hawaiian Ethos has assembled an advisory board to provide guidance to the organization on matters related to forwarding our understanding of how compounds derived from medical marijuana can help patients. The board is composed of experienced medical doctors and scientists with backgrounds in pharmacology, biology, patient medicine, psychiatry, immunology, neurobiology, and genetics. (See Appendix Medical Advisory Board Pg 34-220)

Compliance Committee: Hawaiian Ethos's internal compliance committee will oversee the company's compliance and ethics programs, policies, and procedures, reporting directly to the executive committee. The committee will meet regularly to provide Hawaiian Ethos with internal checks and audits, which can be used for optimization, and ongoing improvement.

Strategic Partners & Vendors

(Hawaiian Ethos has contracts or commitments with the following vendors)

SC Labs - *Laboratory Partner*: A national leader in the field of cannabis science and medical cannabis analysis. SC Labs is one of the first institutions to promote cannabis safety through education, testing, and certification. SC Labs will provide guidance to La'au Pono with respect to setting up laboratory facilities and creating testing policies and procedures.

Hawaiian Ola - *Manufacturing Partner:* for 5-years, the Hawaiian Ola beverage company has created beverages and supplements for retail sale in such stores as, Safeway, Whole Foods, Longs/CVS, and 7-Eleven. The brand creates healthy drink options from responsibly grown Hawaiian ingredients and currently sells in stores throughout Hawaii, California, Washington, and Oregon. Hawaiian Ola will provide manufacturing guidance to La'au Pono.

CannaGuard - *Security Consulting & Installation*: Experienced industry leaders in providing medical marijuana specific security solutions. CannaGuard has designed a comprehensive security plan for Alarm, Camera, and Access Control systems for Hawaiian Ethos LLC. dispensaries and the La'au Pono cultivation center. As licensed installers, CannaGuard will also be integrating the systems and training personnel.

BioTrackTHC - *Software Provider*: BioTrackTHC offers the only true seed-to-sale software solution, which is capable of secure inventory tracking and control. The BioTrackTHC system provides an encrypted platform for seamless connectivity and transparency to the DOH.

PSG Security - *Security Partners*: PSG brings over 100-years of collective law enforcement experience to the sensitive paradigm of doing business in the medical cannabis space and has partnered with Hawaiian Ethos to develop a security plan.

Guske & Company Inc. - *Certified Public Accountants*: Dean Guske has nearly 30-years of experience as a CPA and specializes in meeting the unique challenges and complex needs of clients working in the field of medical cannabis.

Supremus Group LLC. - *Patient Confidentiality Specialists*: Our HIPAA training partners have experience working with thousands of companies in the US to establish patient security policies in order to protect confidential patient information. (See Appendix: Strategic Partners/Vendors Pg 221-286)

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HawaiianEthos

Hawaiian Ethos Mission & Vision

HawaiianEthos

Mission

Ensuring qualifying Hawaii Island residents access to evidence-based treatment choices for medical-grade cannabinoids.

Vision

Hawaiian Ethos will develop and maintain state-of-the-art organic medical marijuana cultivation, product development and quality assurance in GMP-certified manufacturing facilities to provide Hawaii Island with medical-grade cannabinoid treatments for approved medical and health conditions.

Hawaiian Ethos will provide a choice of medical marijuana products with different ratios of cannabinoids, e.g., tetrahydrocannabinol (THC) and cannabidiol (CBD) and terpenes from distinct cannabis varietals for different approved medical conditions.

Hawaiian Ethos will maintain scientific and medical expertise, in order to provide patients, physicians, and the general public with educational information about cannabis pharmacology and usage of cannabis varietals and their development. Our medical advisory board will assist in developing appropriate feedback questionnaires and forms to protect patient privacy and safety.

Hawaiian Ethos will collect and record patient input using a software application to share evidence-based patient feedback with physicians and fellow patients. This information will be limited to responses about different product lines having different cannabinoid and terpene content.

HawaiianEthos

Organizational Chart

Hawaiian Ethos Organization Chart

LLC MEMBERS

Vernon Oi
Shelby Floyd
Robert Bonar
Dale Bonar
Agorastos Hui, LLC
Rhoady Lee
Alan Gartenhaus
Chris Agorastos
John Osterhaus
Mary Osterhaus
Jock Agorastos

EXECUTIVE COMMITTEE

Shelby Anne Floyd, President
Manager of Hawaiian Ethos LLC.

Vernon Oi, Chief Science Advisor
Science Advisor for Executive Committee

John Osterhaus, Chief Operating Officer
General Business MGMT & Strategy

OPERATIONS MANAGEMENT TEAM

Malia Bolton, Dispensary Operations Manager
Management of Dispensaries

Zachary Taffany, Manufacturing Operations
La'au Pono Manufacturing Oversight

CULTIVATION TEAM - LA'AU PONO INC.

Bob Shaffer - Master Cultivator
Soil Engineer & Agronomist

Kris Jacobson - Facility Manager
Cannabis Cultivator & Consultant

MEDICAL ADVISORY BOARD

Dale B. Bonar Ph.D.
Biologist & Research Director

Michael Snyder Ph.D.
Stanford B. Ascherman Professor

Dan Lieberman M.D.
Board Certified Psychiatrist

Lawrence Steinman, M.D.
Professor, Stanford University & NIH Fellow

Mark David Noble Ph.D.
Professorship in Biomedical Genetics

STRATEGIC PARTNERS / VENDORS

SC Labs
Laboratory Guidance & Support

Hawaiian Ola
Beverage Co., Manufacturing Advisors

La'au Pono Cutivation
Manufacturing & Cultivation Subcontractor

CannaGuard
Alarm, Access, Camera Installation

BioTrackTHC
Software System Providers

PSG Security
Security Consulting Services

Guske & Company Inc.
Certified Public Accountant

Supremus Group LLC.
HIPAA/Confidentiality Compliance Training

STRATEGIC ADVISORS

Stacey Marie Kerr MD - Medical Advisor
Clinical Integration Specialist

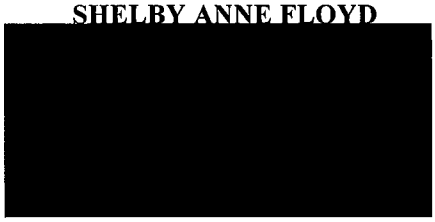
Fred Floyd RPh - Anti-Diversion Specialist
Pharmacy Security Consultant

Khalil Moutawakkil - Dispersary Owner
Dispensary Operations Advisor

HawaiianEthos

Executive Committee

SHELBY ANNE FLOYD



Professional Highlights:

Private legal practice initially focused on counseling clients and resolving disputes involving officers' and directors' fiduciary obligations; employment contracts, conditions, and discrimination; and construction or design defects. From 1999 to 2014, Big Island business organization, real estate transactional work and dispute resolution.

Professional Background:

Manager, Hawaiian Ethos, LLC, October 2015 to the present

Officer and Director, Alston Hunt Floyd & Ing, Attorneys at Law, A Law Corporation.

One of the founders of this Honolulu-based law firm in 1991. At the time of my retirement in 2014, the firm was one of the largest in the State of Hawaii, with over 100 employees, annual client revenues in excess of $20,000,000, and a practice encompassing local, national and international clients and issues.

Between 1991 and 2000, one of three partners managing the firm. Responsible for structure of investment by the firm's multiple-million dollar defined benefit pension, profit sharing and 401k plans. Developed and implemented plans for professional recruitment, business development and supervision of legal services in the areas of complex commercial litigation and employment law. Supervised senior non-professional staff in areas of firm tax planning, client accounting, and staff recruitment and employment.

1993-2004 – As lead counsel for the plaintiff class in Felix v. Waihee, CV. No. 93-00367-DAE, under the supervision of Judge David A. Ezra, District of Hawaii, worked with the Director and with the Chief of the Child and Adolescent Mental Health Division of the Department of Health, the Office of the Attorney General and the Superintendent of Education to enforce obligations to provide increased mental health and special education services under a federal consent decree, resulting in increased funding of over $100,000,000 for services to children with mental health needs.

In 1993, designed and coordinated a practice expansion plan ultimately resulting in the opening and supervising attorneys in the firm's branch offices on the Big Island in Waimea in 1999 and Kona in 2005.

Trustee, Alston Hunt Floyd & Ing 401(k) Retirement Savings Plan (1991-1999)

Trustee, Alston Hunt Floyd & Ing Pension and Profit-Sharing Plans (1991-2000)

Officer and Director, Paul Johnson Alston & Hunt, Attorneys at Law, A Law Corporation, predecessor to Alston Hunt Floyd & Ing (1980-1991).

Education:

Columbia University School of Law, Juris Doctor [redacted] (Honors)
Columbia University School of General Studies, Bachelor of Science [redacted] (*cum laude*)

Selected Professional Honors:

2002 Recipient of the Hawai'i Women Lawyer's "Lifetime Achievement" Award.
2002 Recipient of the Hawai'i Psychological Association's "Daniel K. Inouye" Award.
1999 Recipient of the American Civil Liberties Union of Hawaii's "Loio Ku Kahi (Outstanding Attorney)" Award.
1994 Recipient of the Mental Health Association of Hawaii's "Legal Advocacy" Award.
1984 Recipient of the YWCA of Oahu's "Outstanding Woman Professional" Award.
1984 Recipient of the Hawai'i Women Lawyer's "Outstanding Woman Lawyer" Award.
First Visiting Fellow, Center for the Law in the Public Interest, Los Angeles, CA. (1975)
Harlan Fiske Stone Scholar, Columbia University School of Law (1975)

Professional Affiliations:

Licensed to practice law in federal and state courts in Hawai'i, and before the United States Supreme Court (1976-2015)

Panel Member, Disciplinary Board of the Hawai'i Supreme Court (1995-2006) (chaired hearing committees adjudicating complaints of ethical or fiduciary violations by attorneys)

Community Activities:

Secretary, Hawaii Island Meat Cooperative, 2014 to the present
Director, Parker School Trust Corporation (supporting organization for Parker School) 2008-2014, where I sat as a member of the Beneficiary Committee for Parker Ranch Foundation Trust and supervised the merger of over $6,000,000 in assets of Parker School Trust Corporation into Parker School.

Personal:

Resident of Island of Hawaii since 2000, resident of Hawaii since 1976.

Vernon Oi – Career History

1970's Education Years:

Undergraduate (B.S.) degree from Stanford University
Ph.D. from Stanford University School of Medicine Department of Genetics with Dr. L. Herzenberg

Post-doctoral training and research positions:
Stanford University Medical School Department of Structural Biology with Dr. L. Stryer
Medical Research Council (MRC) Cambridge, England with Dr. C. Milstein
Agricultural Research Council (ARC) Babraham, England with Dr. A. Feinstein
University of Wisconsin Department of Microbiology with Dr. F. Blattner
Stanford University School of Medicine Department of Genetics with Dr. L. Herzenberg

(Published nearly a hundred peer-reviewed scientific papers and book articles.)

1980's Patent Years (at Stanford University):

S81-026 Patent: Fluorescent Conjugates for Analysis of Molecules and Cells issued 05/28/1985; Total Income (shared in part with UC Berkeley) $46,297,668

S84-002 Patent: Methods and Transformed Mammalian Lymphocyte Cells for Producing Functional Antigen-Binding Protein Including Chimeric Immunoglobulin Fragments issued 09/15/1998: Total Stanford Income to date: $566,626,690. (Total income to Columbia University is about $1.2B.)

1990's Commercial Years:

Director and Vice President of Research and Development Becton Dickinson Monoclonal Center and Immunocytometry Systems
Managed hundreds of employees in research and clinical diagnostics; managed research and development of clinical drug trials

Vice President of Research and Development Helix Systems
Managed software startup developing scientific laboratory notebook and data collection software

2000's Teaching Years:

Elementary school 4th, 5th, and 6th grade math teacher at Springer Elementary School in Mountain View, California

2010's Retirement Years

JOHN OSTERHAUS

[redacted]

[redacted]

EDUCATION: BS Government, St. John's University (Minnesota), [redacted]

JD Stanford University, [redacted]

WORK EXPERIENCE

2005-Present

Managing personal investments

General Manager and part owner of eyewear distribution company (2007 to present)

Owner/operator of wine importer and distributor (2009 to 9/30/15)

1989-2005: Vice President, Costco Wholesale Corporation. Responsibilities included General Counsel and Real Estate Acquisitions (1989-1992), member of UK start up team (1993-1995), Optical, One Hour Photo and Hearing Aid businesses for US (1996-2005), with Gasoline replacing One Hour Photo (2004-2005)

1988: Project Manager, W. Lease Lewis (General Contractor), Seattle, WA

1987: Self-employed as a business consultant

1981-1986: Attorney, Foster, Pepper & Riviera, Seattle, WA

HawaiianEthos

Operations Management Team

Malia Bolton

[redacted]

Objective — **Cultivate Community**

Profile

- Passionate about planning and coordinating events.
- Ability to direct complex projects from concept to fully operational status.
- Goal-oriented individual with strong leadership capabilities.
- Organized, highly motivated, and detail-oriented problem solver.
- Proven ability to work in unison with staff, volunteers, and board of directors.

Education

B.A., Communications, University of Hawaii at Manoa
A.A., Business Administration- Marketing, Santa Barbara City College

Employment

Director of Operations , *The Kona Coffee and Tea Co.*, Kailua Kona — *2003-present*

- Oversees daily operations of production, retail, wholesale, mail-order and marketing
- Created and implemented operational manuals
- Developed corporate branding, press kit, and marketing strategies

Wedding Consultant, *Self-employed*, Hawaii — *2004-present*

- Coordinate special events, set up and break down productions, manage vendors, counsel couples, mediate family's, and event design
- Create and maintain budgets, agendas, and contracts.

Soccer Manager, *UH athletic department*, University of Hawaii — *2003-2005*

- Managed retail merchandise, organized all travel arrangements, directed transportation, maintained equipment, and oversaw all practices and tournaments.

Personal Assistant, Mike and *Jan*, Oahu — *2003-2005*

- Provided concierge services, oversaw projects, managed and maintained vacation rental.

Community Involvement

Kona Coffee Festival, Board Of Directors and Retail Committee

Daniel R. Sayre Memorial Foundation, Board Member and Registration/Greeting Committee

Queen Liliuokalani Trust, Advisory Committee

Kona Coffee Council, Member

Specialty Coffee Association of America , Member

Hawaii Organic Farmers Association , Member

Reference on request

Malia Bolton

[redacted]

I, Malia Bolton, intend to support Hawaiian Ethos in providing Hawaii Island residents access to evidence-based treatment choices for medical-grade cannabinoids. I'm pleased to be apart of the Hawaiian Ethos team and I believe in the mission. With our dynamic team there is a wealth of information and resources to ensure each patient will have the accessibility to quality treatment.

Having been born and raised in Kailua Kona, Hawaii and spending over 10 years of my professional career here, managing my families coffee company, The Kona Coffee and Tea Company, has made me very familiar with running a retail and café business. Our vertically integrated, from Farm to Cup, business model has allowed us to control the whole process to ensure the highest quality product.

I plan to use my knowledge and experience to oversee all daily operations of Hawaiian Ethos' dispensaries in both locations. My responsibilities will include: seeing that essential security and safety measures are met, maintaining an adequate supply of medicine for patients, optimizing the quality and efficiency of the patient experience (including supporting the educational needs of patients), and creating and enforcing company policies and procedures, which uphold Hawaiian Ethos' overall commitment to ensuring safety and access. I will also oversee the hiring of qualify staff members who will give great customer service and create an employee manual that has detail Standard Operating Procedures (SOP) and a training program that is essential for running a first class operation. Our SOPs will be in compliance with the laws and regulations of the Dept. of Health and OSHA.

I also have close personal relationships with large landowners. I'm happy to assist in securing and negotiating prime locations for the dispensaries and grows if need be.

I am an asset in managing and maintaining healthy and positive public relations for Hawaii's first dispensaries. I strive to cultivate community by leading, educating and preserving Hawaii. I'm looking forward to sharing my experience and passion with the Hawaiian Ethos team!

Mahalo,
Malia Bolton

Zachary Taffany

What?

Zachary Taffany has over 15 years of sales and operations management experience in B2C and B2B markets for Consumer Goods, Mobile-Tech, Financial Services and Leadership Development industries. He has achieved a high level of personal success with Cutco Cutlery, including Multiple time President's Club achiever, Academy of Champions Sales Manager, All-time national monthly Branch Sales record holder (Sep '03), and #2 all-time career field training leader. He has raised private and angel capital and has consulted with domestic and international companies in order to improve manufacturing, sales, marketing, and distribution programs.

How?

Zachary's core competency is the development, implementation and refinement of systems and processes that influence:

- Company Culture
- Employee Engagement
- Data Collection
- Leverage of Key Performance Indicators
- Product Development
- & Quality Control Systems

Why?

Zachary believes that the fundamental purpose of life is service to others. He believes that an organization's people, programs and products are the 3 pillars that contribute to the ability of every business to serve the needs of their customers. Zachary is proud to be associated with a certified B-Corp and is looking forward to contributing his operations experience to Hawaiian Ethos and La'au Pono.

Experience

1999-2009 - Cutco Cutlery

2009-2010 – Krilix Inc – Director of Sales

2011-2013 YoYo Text - Founder

2013 – 2014 Tail Current Technologies - Consultant

2013-2015 ACE Capital Group – Investment Seminar Host

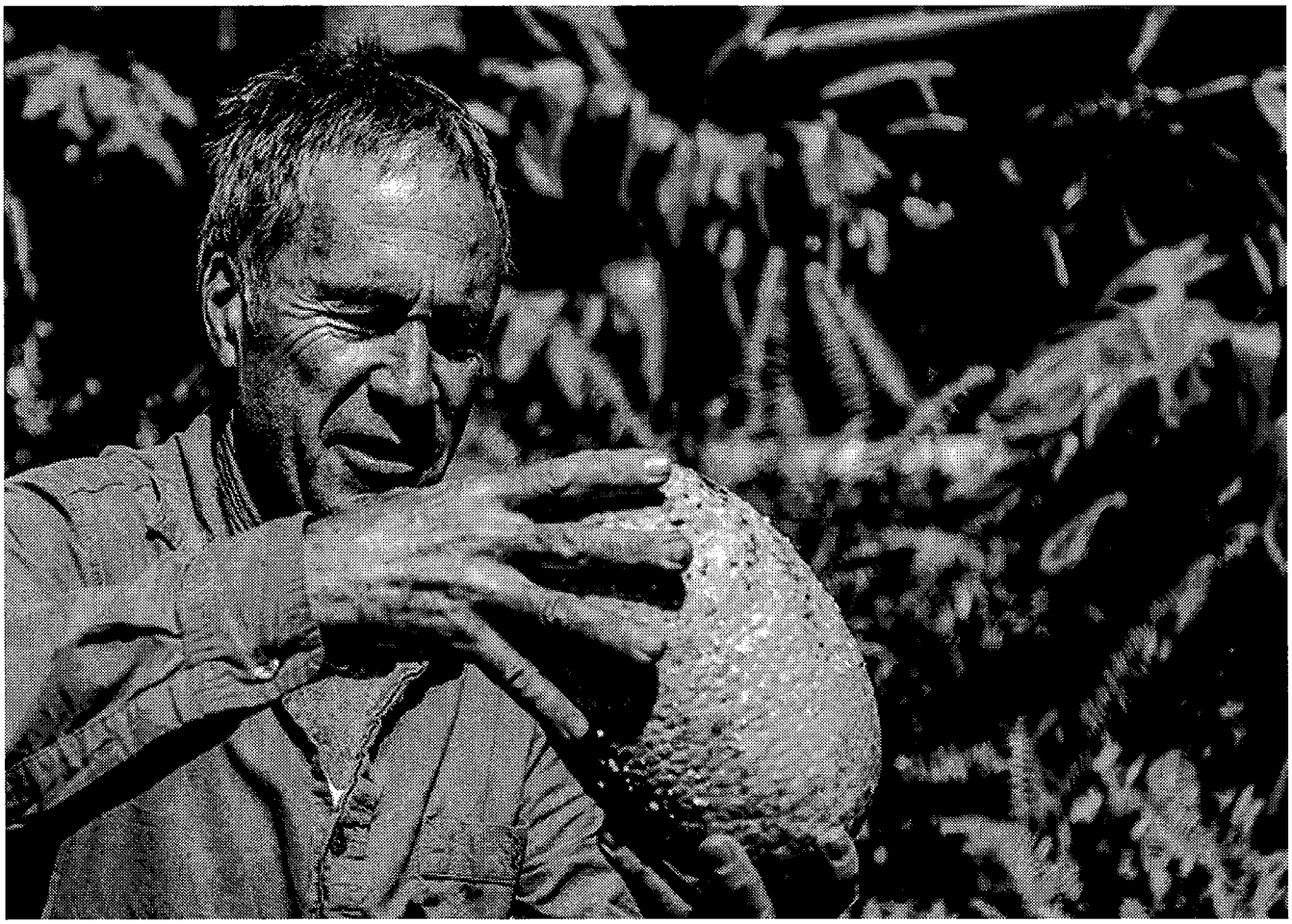
2015 – 2016 Hawaiian OLA – Director of Operations

Personal Achievements

Outside of work Zachary has a passion for health and wellness and holds a certification as a Detoxification Specialist with an emphasis on cellular detoxification. He holds the rank of 4th Kyu in the art of Kaze Arashi Ryu and he is also a graduate of LIFE Leadership's Corporate LLR Program.

Hawaiian**Ethos**

Cultivation Team - La'au Pono



SOIL MATTERS

with Bob Shaffer

Bob Shaffer, Agronomist / SOIL CULTURE CONSULTING / 707-953-5153

I began providing agronomy consulting and education during 1994 in Hawaii and have since provided year around agronomy services on all of the Hawaiian Islands in many crops and for compost development

REFERENCES FOR CONSULTING IN AUSTRALIA, CALIFORNIA, GUATEMALA AND HAWAII

[redacted]

Bayer CropScience Australia

[redacted]

Since 2011 I have conducted extensive, detailed education based workshops and field demonstrations for the Bayer Partnering With Innovation Group with full cooperation from Bayer in Germany. We have given in depth consulting for 14 of the very largest farmers in Australia of greenhouse crops, macadamia, vegetables, almonds, wine, avocado and pastures in every district of Australia. In 2014 I was retained by Bayer, as agronomist, to conduct research into QST 413 strain of Bacillus subtilis in order to make the inoculation of high value crops more effective and to design parameters for cultural practices that support beneficial and successful inoculation of crops with B. subtilis. I recently designed and implemented a full day training for 35 senior Bayer sales representative from all districts of Australia. I have had 45 Bayer representatives and large scale farmers meet with me in California where on 3 separate occasions I escorted these clients to farms where I have worked for 10 years and more using biologically integrated and sustainable techniques and have great crop quality, economical production and simple technology.

[redacted] Northern Rivers SoilCare [redacted]

SoilCare Inc

[redacted]

Since 2007 I have worked with LandCare and SoilCare in Australia providing dozens of full day and sometimes 3 day workshops and presentations in support of soil health. These education based presentations involve the biology chemistry and physics of soil and the crop for farmers who are in transition to biologically integrated farming practices. I have worked for SoilCare in every state of Australia many times and most recently gave key presentations and a full day work shop at the 2015 Biological Farming Conference in Brisbane. My work with SoilCare clients includes greenhouse and field crops, both perennial and annuals of all types and especially macadamia, coffee, medicinal crops, nuts, sugar cane, compost development, cover crops of all types and the technical aspects of problem diagnosis and remediation, pest prevention and development of high quality in crops has been a consistent theme in my work with SoilCare and dozens of farms across Australia.

[redacted]

JEPSON PRAIRIE ORGANICS A RECOLOGY COMPANY, SAN FRANCISCO

[redacted]

I have been the primary consultant for agronomy and composting at Recology and our 6 compost operations in California and Oregon for over 10 years and I work extensively with the public relations and publicity department leaders to make sure the science of composting is accurately and clearly represented to the public and our partners. I have done extensive research into making disease suppressive certified organic compost and have many products that I designed for JPO over the years that are very successful and which are applied to 15,000 acres of crops annually

[redacted]

OLAM

[redacted]

GENERAL MILLS

[redacted]

In 2010 was retained by General Mills and OLAM to research, design and implement a composing operation, and provide agronomy services, for our 2,500 acres of certified organic tomatoes in Sacramento Valley California. This compost operation is successful today and recycles 50,000 cubic yard of otherwise wasted organic matter into a effective soil amendment.

[redacted]

HAINA MILL EARTH PRODUCTS

[redacted]

I am agronomist and compost specialist for this company that is currently developing the capacity to make high quality potting soil, from Hawaii island recycled materials, for Hawaii markets. I am developing vermipost and disease suppressive compost that will be used in the potting soil products. We are also working with a unique deposit that is on site in Honokaa of sugar cane mill mud that we have researched and engineered methods to recycled this sugar cane processing by product that is 20-60 years old and has unique and valuable characteristics for use as a potting soil. I am developing and will implement static forced air composting in our large industrial building that is one of the largest buildings in Hawaii. We are also intending to grow coconut, taro, medicinal crops and large C-4 grasses on our properties and are in the development stage of those fields at current.

[redacted]

FINCA SANTA ISABEL

[redacted]

1,000. Acres of certified organic and certified biodynamic, shade grown coffee that conducted field studies to determine opportunities, designed and implemented a compost program, mineral amendment program, foliar feeding program, improved the groundcovers and helped them to increase the health of the whole agroecosystem

[redacted]

MAUI EDIBLE LANDSCAPE

[redacted]

[redacted] was the manager for the USDA small farmer grants that are administered by the Tri Island Council in Maui County Hawaii. [redacted] hired me, and I provide three (3) days of classroom training for farmers on soil, cover crops, composting. I also was employed to instruct farmer on how to collect soil and submit to a lab for analysis. Then I was then additionally retained to offer on farm investigations and make agronomic recommendations for them all.

[redacted]

KONA LEA PLANTATION

HOLUALOA KONA COFFEE COMPANY

[redacted]

I have worked for both Desmond and his brother Christian (Kona Blue Sky) since the 1990's and worked directly with Mr. Larry Kunitake iconic master coffee farmer, their manager. These two farms together were about 300 acres of coffee. I was responsible for the coffee nursery, from seed to field transplanting, the preparation for transplanting and the care of the young coffee trees for the first 3 years on 50 acres that we developed during my work for Kona Blue Sky. I helped these farms to start their compost program that still exist today.

[redacted]

HULA DADDY COFFEE

[redacted]

I am consultant for [redacted] of Hula Daddy Coffee in Holualoa, and we have a extensive coffee program that I have designed for Mr. Patterson. I have raised 7,000 nursery trees and we have won multiple cupping first place for HD Coffee

[redacted]

KU'PAA FARM

[redacted]

I am consultant for this progressive and highly education based farming enterprise. [redacted]

is building the capacity to teach on his farm and currently is instructing many farms and students on how to build a diversified organic farming environment. Ku 'paa coffee was judged #1 on Maui island and 7th best in the state of Hawaii in recent Hawaii Coffee Association state of Hawaii cupping. My work with [redacted] established the right pruning shape, and improved mineral nutrition for the trees in the 18 months prior to this significant cupping performance. Compost is a significant part of the program at Ku paa farm, and their success.

[redacted]

WOOD ESTATE ORCHARD

[redacted]

Worked with this orchard for 5 years, during which we received a first, second and third place award in the Gevalia Kona Coffee Cupping Contest. I continue my work with Mr. Wood in his Japanese green tea farm in Honaunau.

[redacted]

MOUNTAIN THUNDER COFFEE COMPANY

[redacted]

I have consulted with [redacted] for many years and their upper elevation field is the largest organic coffee field in Kona, and has consistently won first place in the Chefs Choice kona coffee competition. We compost this coffee and I do all their soil investigations, analysis and recommendations including pruning and other cultural practices recommendations. This farm and our upper elevation fields have won over 15 first place and more for their coffee quality

[redacted]

PUNA ORGANIC FARM

[redacted]

I was consultant for this largest producer of organic yellow (spice) ginger in Hawaii. We make our own compost and employ innovative cover crop and plant parasitic nematode prevention techniques.

[redacted]

VOLCANO WINERY

[redacted]

I helped [redacted] to make compost for the vineyard we I developed for Volcano Winery in 2006. I developed a complete vineyard plan and helped [redacted] to plant the first professional planting of Pinot Noir on Hawaii Island.

END 1/20/16

Consulting for legal Cannabis

I have provided information and recommendations for some of the largest and high quality medicinal legal Cannabis farms servicing dispensaries in California since 1997 [redacted] have first hand experience cultivating legal Cannabis with particular emphasis on high CBD strains [redacted]

CONSULTANT ACCOMPLISHMENTS:

- Transitions to organic in hydroponic, sterile media, and soil based systems
- Managed pests, including Leveillula taurica using organic techniques
- Developed potting soil research, trials and implemented beneficial changes which is the base on which quality is developed
- Developed outdoor soil health cultural practices designed to elevate quality, yield and consistency

Bob Shaffer, agronomist

SOIL CULTURE CONSULTING

Developing high quality crops with cultural practices

There is a strong relationship between a crops natural pest prevention mechanisms and what we perceive as high quality in food and medicinal crops.

Over decades of study, trial and error during the cultivation of wine and coffee, I have developed an understanding of the mechanics of plant pest prevention and have applied those insights by development of techniques to elevate plant pest prevention, which results in higher quality crops.

Wine and coffee have been our crops of most study as there is a professional and well-practiced system to evaluate the quality of the crop in response to treatments.

Essentially, plants have active means by which they can increase their protection against pests and this protection, in part, involves the production of phenolic materials that are medicinal to animals when the plant parts are consumed.

I have established a clear and consistent pattern of clients winning high scores from their respective crops where we apply specific techniques, materials and skill based cultural practices and certain treatments to the crop

CHATEAU MONTELENA WINERY, CALISTOGA, CALIFORNIA

- For 20 years I have served as agronomist and viticulturist for this historic and award winning winery. Our wine quality has increased consistently overtime and represents the benefits of a biologically integrated and wholistic approach to wine quality

HAMBRECHT WINERIES AND VINEYARDS, HEALDSBURG CALIFORNIA (CERTIFIED ORGANIC)

- 2000 Gold and Silver metals at Sonoma County Harvest Fair

KEOKEA KONA FARM (CERTIFIED ORGANIC) HONAUNAU, HAWII

- 1997 First place Gevalia coffee cupping

WOOD ESTATE COFFEE, HAWAII (CERTIFIED ORGANIC) CAPTAIN COOK, HAWAII

- 2001 First place Gevalia coffee cupping
- 2002 Second place Gevalia coffee cupping

KU PA A FARM, MAUI (CERTIFIED ORGANIC) KULA, MAUI

- 2009 First place Hawaii Coffee Association Maui Island coffee cupping
- 2010 First place Hawaii Coffee Association Maui Island coffee cupping
- 2010 Second place Hawaii Coffee Association state coffee cupping

MOUNTAIN THUNDER COFFEE (CERTIFIED ORGANIC), KALOKO MAUKA, HAWAII

- 2013 First place Kona Coffee Cultural Festival coffee cupping

HULA DADDY COFFEE, HOLUALOA, HAWAII

- 2014 First place classic division Kona Coffee Cultural Festival cupping
- 2015 First place creative division Hawaii Coffee Association cupping

TWO (2) LICENSED FARMS IN TASMANIA (CONFIDENTIAL AT THIS TIME)

- I have recently started consulting for Poppy (Papaver somniferum) and pyrethrum chrysanthemums (Chrysanthemum cinerariifolium and Chrysanthemum coccineum) in Tasmania Australia who work under a permit from the World Health Authorities. These crops are specifically medicinal or pesticides due to the production of secondary metabolites that are variable in production due to genetics, weather and cultural practices, which influence both above, and below ground character of the crop
- These farmers are members of the Bayer Ag Sciences Partnering With Innovation group that I have been consulting and providing education based seminars and workshops for since 2009.

We do not have trial results at this time but there is little doubt, from evidence we have acquired, that there will be elevated levels of medicinal compounds in the crops once our treatments have had time to follow a natural path of influence on the soil.

Bob Shaffer, agronomist

SOIL CULTURE CONSULTING

1992 - 2016 Bob Shaffer presentations in temperate crops

Date	Event Title	Local Producer	Event Sponsor	Presentation Title	Time
08/07/92	Viticulture conference	Napa Valley College	Napa Valley Grape Growers Association	Microorganism Cultures for Soil Nutrition	1 hour
09/17/92	National Organic Standards Board Meeting	National Organic Standards Board Meet	National Organic Standards Board Meeting	Natural forms of potassium nitrate	1/4 hour
11/24/92	Sonoma County Viticulture Technical Group Meeting	Sonoma County Viticulture/Technical Group	Sonoma County Viticulture and Technical Group	Managing soil organisms in vineyards	1/2 hour
06/07/93	Agriculture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Organic management of vineyards	3 hours
01/12/94	Vineyard Mineral Balance	Native Cultures International, Inc.	Native Cultures International, Inc.	Mineral balance for vineyards	4 hours
07/12/94	Biological Integration of Winegrape Vineyards	Native Cultures International, Inc.	Native Cultures International, Inc.	Foundation of Biological Vineyards	2 hours
02/15/94	Soil Management Seminars	Soil Management Seminars, Inc.	Soil Management Seminars, Inc.	Innovative Winegrape Production	1 hour
04/13/94	Sustainable Winegrapes	Committee for Sustainable Agriculture	California Certified Organic Farmers	Balancing Soil nutrients	1/2 hour
11/18/94	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Winegrape growing in California	1 hour
03/14/95	Agriculture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	How to Create Soil Health in the Vineyard	3 hours
04/11/95	Production Techniques for Sustainable Winegrapes	Committee for Sustainable Agriculture	California Certified Organic Farmers	Compost and Cover Crops	1/4 hour
12/01/95	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Exploring the Certified Organic Option	3 hours
12/02/95	Agriculture 234, Integrated Pest Control for Grapes	Napa Valley College	Napa Valley College	Soil Health and the Plant Protection	3 hours
04/10/96	Agriculture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Using Cover Crops to Create Soil Health	4 hours
04/22/96	King Estate Growers Seminar	King Estate Winery	King Estate Winery	Organic Viticulture from Soil to Winery	1 hour
02/17/97	Eco-Ag/West	Acres U.S.A.	Acres U.S.A.	Science, Organic Farming and Crop Quality	1 hour
02/18/97	Eco-Ag/West	Acres U.S.A.	Acres U.S.A.	Implementing a Biologically Integrated System	1 hour
03/03/97	Organic Plant Nutrition Workshop	AG Unlimited	AG Unlimited	Calcium and Humic Material Uses in Soil	1/2 hour
03/12/97	2nd Annual Livermore Valley Grape Grower Meeting	Livermore Valley Grape Growers	Wente Vineyards	Soil Testing, Amendments and Balance	1 hour
03/24/97	Viticulture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Using Compost to Prevent Soil Disease	4 hours
03/26/97	Concern-A Conference on the Use of Methyl Bromide	Healdsburg Alliance of Responsible Citizens	National Coalition Against the Misuse of Pesticides	Growing Crops Without Methyl Bromide	1/2 hour
04/17/97	Organic Grower Luncheon	Sun West Organic	California Crop Exchange	Growing Organic Rice and Soil Health	1/2 hour
04/19/97	Production Strategies for North Coast Sheep	North Bay Wool Growers Association	U/C Cooperative Extension and SAREP	Lamb and Wool Organically	1/2 hour
09/19/97	Viticulture 233, Hillside Viticulture	Napa Valley College	Napa Valley College	Organic Strategies for Vine Health and Flavor	4 hours
05/13/98	Sonoma Lighthouse Flame Weed Control Workshop	Community Alliance for Family Farmers	Community Alliance for Family Farmers	Flame Weeding an Organic Strategy	2 hours
10/08/98	Trouble in Paradise	West County for Alternative to Toxins	California Certified Organic Farmers	Organic Winegrape Growing	1 hour
10/28/98	Sonoma Lighthouse Farm Meeting	Community Alliance for Family Farmers	Cal Plans Vineyards	Cover Crops and Soil Health for Vines	2 hours
11/02/98	Viticulture 233, Hillside Viticulture	Napa Valley College	Napa Valley College	Soil and Wine Quality	4 hours
11/11/98	Growing Into the 21st Century-Alternative Pest Control	West County for Alternative to Toxins	Sonoma County Farm Bureau	Soil Biology and Cover Crops	1/2 hour
11/18/98	Viticulture 234, Integrated Pest Control for Grapes	Napa Valley College	Napa Valley College	Soil Health and Plant Pest Protection	4 hours
02/23/99	Anderson Valley Reduced Input Viticulture Forum	Mendocino County for Alternative/Toxics	Mendocino County for Alternative to Toxics	Soil Biology and Organic Farming	1/4 hour
04/13/99	Viticulture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Humus and Wine Quality	4 hours
04/25/99	Vineyards, Community & Nature	Community Alliance for Family Farmers	Luther Burbank Center for the Arts	Vision of a Healthy Vineyard	1/4 hour

Date	Event Title	Event Producer	Event Sponsors	Presentation Title	Time
11/01/99	Viticulture 230, Viticulture Operations	Napa Valley College	Napa Valley College	Selecting and Planting a Cover Crops	3 hours
03/21/00	Viticulture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Soil Analysis and Mineral Balance	4 hours
03/29/00	Salinas Winegrape Conference & Farm Tour	Committee for Sustainable Agriculture	USDA NRCS, CA Integrated Waste Board	Weed Control by Soil/Plant Chemistry	1 hour
10/05/00	Hillside Viticulture Workshop	Community Alliance for Family Farmers	Community Alliance for Family Farmers	Hillside Viticulture and Cover Crops	1 hour
02/26/01	Organic Viticulture	Santa Rosa Junior College	Santa Rosa Junior College	Soil Mineral Interactions and Organic Farming	2 hours
05/08/01	Agriculture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Earthworms and Viticulture	4 hours
08/07/01	Cover Crops for Vineyards	Community Alliance for Family Farmers	Cal Plans Vineyards	Selecting and Planting a Cover Crops	3 hours
11/14/01	Agriculture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Soil Biology and Integrated Pest Management	4 hours
11/21/01	Viticulture 132, Hillside Viticulture	Napa Valley College	Napa Valley College	Soil and Wine Quality	4 hours
07/01/02	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
12/13/02	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Eco Agriculture and Fundamental Tools	2 hour
12/14/02	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Clay and the Quality of your Crop	2 hour
03/28/03	Mt. Veeder Quality Alliance field meeting	Mt. Veeder Quality Alliance	Castle Rock Winery	Mt. Veeder and soil balance	2 hours
04/29/03	Soil, wine and terrior	Tannin Management	Culinary Art School of America	Soil, wine and terrior	1 hour
4/31/03	SRJC field day for organic winegrapes	Santa Rosa Junior College	Hambrecht Vineyards	Organic grapes, cover crops and soil health	1 hour
06/10/03	EcoWineFest	EcoWineFest	IFOAM-Frey Winery-Fetzer Winery	Soil and Wine Quality	1.5 hours
06/16/03	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
11/15/03	Eastern Atlantic Biodynamic Viticulture Conference	Allan Balliet	University of Virginia	Cover crops for vines and soil	2 hours
03/05/04	Compost Tea Seminar	Compost Tea Association	COPIA American Center for Wine, Food, Napa, CA	Crop Response to Compost Tea	1 hour
05/25/04	Soil, wine and terrior	Tannin Management	Culinary Art School of America	Soil, wine and terrior	1 hour
06/20/04	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
10/04/04	Viticulture 230-Fall Viticulture Operations	Napa Valley College	Napa Valley College	Fall Viticulture Operations	3 hours
10/06/04	Viticulture 234-Integrated Pest Control for Grapes	Napa Valley College	Napa Valley College	Integrated Pest Control for Grapes	3 hours
12/09/04	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Cover crops and crop quality	1 hour
12/10/04	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Cover crops and crop qulity workshop	1.5 hours
12/10/04	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Cover crops and crop qulity workshop	1.5 hours
03/21/05	Viticulture 111: Organic Viticulture	Santa Rosa Junior College	Santa Rosa Junior College	Cover crops and soil fertility	3 hours
06/13/05	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
06/22/05	Organic Producers Group	Sonoma County Grape Growers	Sonoma County Grape Growers	Which weeds are good-which are bad?	.25 hour
09/06/04	Soil, wine and terrior	Tannin Management	Culinary Art School of America	Soil, wine and terrior	1 hour
11/01/05	Cover crop and disease prevention for vines	Fish freiendly farming	Ridge winery	Cover crop and disease prevention for vines	1 hour
12/10/05	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Secondary metabolites and crop quality	1 hour
03/23/06	Cover crop and disease prevention for vines	Fish freiendly farming	Ridge winery	Cover crop and disease prevention for vines	1 hour
04/04/06	Agriculture 132, Vineyard soil, fertilizers and irrigation	Napa Valley College	Napa Valley College	Earthworms and Viticulture	4 hours

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Date	Event Title	Event Producer	Event Sponsors	Presentation Title	Time
06/13/06	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
08/19/06	Sonoma County Viticulture Technical Group Meeting	Sonoma County Viticulture Technical Group Meeting		Preventing diseases using cover crops and compost	3hours
06/11/07	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
12/10/07	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Preventing diseases using cover crops and compost	1 hour
12/10/07	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Advanced cover crop practices	1.5 hours
02/09/08	US Compost Council Oakland Conference	US Compost Council	US Compost Council	Compost and Viticulture Workshop	8 hours
06/13/08	Viticulture 298-Cover Crops for Vineyards	Napa Valley College	Napa Valley College	Cover Crops and Viticulture	18 hours
12/06/08	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Soil orgnic matter, cover crops and crop quality	1 hour
12/07/08	Acres U.S.A Conference	Acres U.S.A.	Acres U.S.A.	Creating and mananging orgnaic matter	4 hours
12/18/08	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Compost	3 hours
02/26/09	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Owls and Humus	3 hours
03/05/09	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil analysis and laboratory soil analysis	3 hours
03/12/09	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Sonoma countys soil survey maps	3 hours
03/19/09	Agronomy and viticulture for interns	Greenstring Institue and farm	Greenstring Institue and farm	Compost	3 hours
06/18/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil's physical nature and texture	3 hours
06/25/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil structure, organic matter and humus	3 hours
07/02/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil minerals, roots and soil health	3 hours
07/09/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil biology, soil surface animals	3 hours
07/16/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil biology, microorganisms	3 hours
07/23/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil biology functions and food web	3 hours
07/28/10	Compost defined, its use and benefits	Susuin Grape Growers Association	Jepson Prairie Organic	Compost defined, its use and benefits	3 hours
07/29/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil analysis for chemistry	3 hours
08/05/10	Soil science and agronomy for interns	Greenstring Institue and farm	Greenstring Institue and farm	Soil analysis collection and sensory evaluation	3 hours

There are dozens of entries from 8/6/10 - 1/19/16 not listed, yet

Examples of presentations not listed are 1) classes that I teach every Tuesday and Thursday at my farm in Honaunau for interns, associates and labor on the art, biology, chemistry and physics of raising food and farming alike. 2) Not listed are dozens of field classes i provide for small and huge farm concerns including their management, labor, consultants, fertilizer dealers, real estate concerns and others in the USA and Australia far in exess of the hours and topics represented in the information above. The education based presentations listed are provided in service to food producers and to discuiss natural systems in order to produce the highest quality food, medicine and in order to maintain soil health

1994 - 2016 presentations for tropical crops

Date	Event Title	Event Producer	Event Sponsors	Presentation Title	Time
09/15/94	Kona Coffee Council Meeting	Kona Coffee Council	CTAHR University of Hawai'i	Soil fertility and coffee trees	1 hour
02/14/95	Back to Basics Workshop	Soil Culture Consulting	Kona County Farm Bureau	Biological Integration for Hawai'i Farms	3 hours
01/16/96	Soil Health and Tropical Crops Workshop	Soil Culture Consulting	Hawaii Organic Farmers Association	Soil Biology, Soil Health and Tropical Crop	4 hours
01/17/96	Soil Health and Tropical Crops Workshop	Soil Culture Consulting	Hawaii Organic Farmers Association	Soil Biology, Soil Health and Tropical Crop	4 hours
04/02/98	Hawai'i Organic Farmers Association Meeting	Hawaii Organic Farmers Association	Hawaii Organic Farmers Association	Tropical Soil and Unique Characteristics	1 hour
06/19/98	Hawai'i Coffee Association Annual Conference	Hawai'i Coffee Association	Kauai Coffee Company	Soil Health and Coffee Quality	1 hour
09/04/98	Soil Health Conference	Hawai'i Organic Farmers Association	Hawai'i Farm Bureau, Acres, Maui County	Soil Health and Hawai'i Soils and Crops	2 hours
01/16/99	Na Moku Aupuni O Ko'olau Hui Meeting	Na Moku Aupuni O Ko'olau Hui Meeting	Na Moku Aupuni O Ko'olau Hui Meeting	Soil Testing and Fertilizers for Taro	1 hour
05/02/99	Specialty Coffee Association Annual Conference	Specialty Coffee Association/America	85 Countries	Soil Health and Coffee Quality	1 hour
05/21/99	Aha Kalo o Ke'Anae-Wailua Nui Taro Growers Conference	Na Moku Aupuni O Ko'olau Hui	Queen Lili'uokalani Children's Center	Soil Health and Raising Organic Taro	3 hours
07/20/00	Hawai'i Coffee Association Annual Conference	University of Hawai'i CTAHR	Hawai'I Department of Agriculture	Quality Coffee through Soil Health/Shade	.5 hour
01/27/01	Hawai'i Sustainable Agriculture 2001 Conference	CTAHR University of Hawai'i	CTAHR University of Hawai'i	Organic pest prevention and soil health	.25 hour
06/15/01	Sustainable Farming Mini Conference	CTAHR University of Hawai'i	Maui Community College	Living Soil	1 hour
07/18/01	Body and Soil Farm Conference	Hawai'i Organic Farmers Association	Maui Farm Bureau	Biologically Integrated Organic Farming	7 hours
05/20/02	Ag 92U Cover Crop and Soil Health Class	University of Hawai'i CTAHR	Maui Community College	Cover Crops and Soil Health	8 hours
05/27/02	Ag 92U Cover Crop and Soil Health Class	University of Hawai'i CTAHR	Maui Community College	Cover Crops and Soil Health	8 hours
08/12/02	Kipuhulu Organic Farm Workshop	Aloha Aina Association	Maui Farm Bureau	Minerals Role in Soil Health	15 hours
10/16/02	Kauai Taro Growers Festival	Kauai Taro Growers Association	Tourist Bureau of Kauai, U/H CTAHR	Organic Taro Farming	2 hours
01/08/02	Sustainable Pest Control in the Tropics	University of Hawai'i CTAHR	Natural Resources/Environmental Mgmt. Dept.	Organic Pest Control for the Tropics	1 hour
01/25/03	Micronutrient Workshop	Maui Aloha Aina Association	Hawaii Organic Farmers Association	Micronutrients in Quality Fruit Production	7 hours
01/15/03	Pest Management in Tropical Crops	CTAHR University of Hawai'i	American Samoa, Ponaphi, N.Marianas	Preventing Disease in Tropical Crops	2 hours
07/19/03	Maui Aloha Ainia Association meeting	Maui Aloha Aina Association	Maui Organic Farmers	Disease Management with Cover Crops	1 hour
10/28/04	Kauai Taro Growers Festival	Kauai Taro Growers Association	Tourist Bureau of Kauai, U/H CTAHR	Organic Taro Farming	5 hours
07/12/05	Soil heath and secondary metabolites	Maui Aloha Aina Association	Tourist Bureau of Kauai, U/H CTAHR	Organic Taro Farming	5 hours
10/17/05	Sub tropical soil and clay species	Hawaii Organic Farmers Association	CTAHR University of Hawai'i	Hawaii island soil, clay, humus and SOM	8 hours
01/30/06	Soil health,disease prevention and Tea	Hawaii Tea Assocation	Soil health and disease prevention for Tea	Soil health and disease prevention for Tea	1 hour
10/13/07	Maui Aloha Ainia Body and Soil Conference	Maui Aloha Aina Association	Maui Farm Bureau, Tourist Bureau	Disease Management with Cover Crops	3 hours
11/07/07	HOFA Wholistic and certified organic	Hawaii Organic Farmers Association	Hawaii Organic Farmers Association	Wholistic farming by certified standards	16 hours
10/11/08	Maui Aloha Ainia Body and Soil Conference	Maui Aloha Aina Association	Maui Farm Bureau, Tourist Bureau	Alley crops, hedgerows, crover crops and soil health	3 hours
11/20/09	Maui Aloha Ainia Kipuhulu 2	Maui Aloha Aina Association	Maui Aloha Aina Association	Soil analysis reading and organic matter	4 hours
11/09/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	Master Class - Transition to sustainable agriculture	2 hours
11/10/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	Soil health is the foundation of sustainable agriculture	1 hour
11/10/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	The role of compost in sustainable farming	6 hours

Date	Event Title	Event Producer	Event Sponsor	Presentation Title	Time
11/11/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	Transitions to simple, economical sustainable ag	6 hours
11/12/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	Soil biology, soil health, food quality and sustainable ag	6 hours
11/13/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	Ground covers, tillage and their use in sustainable ag	6 hours
11/14/09	Bob Shaffer Soil Health Workshop	LandCare Australia	SoilCare Australia, Wollongbar Ag Institute	Soil minerals and developing sustainable farms	6 hours
03/18/10	In house training for the compost staff	Finca Santa Isabel, Guatemala	Mr. Alex Keller, owner	Monitoring and improving our compost	2 hours

2010 - 2012 entries are not completed as of 1/19/16

09/07/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Richmond LandCare, TAFE Wollongbar	Transition to simple, innexpensive farm practices	1.75 hours
09/07/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Richmond LandCare, TAFE Wollongbar	Ground cover, tillage and sustainalble uses	1.5 hours
09/07/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Richmond LandCare, TAFE Wollongbar	Soil Minerals and developing sustainable farms	3.0 hours
09/07/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Richmond LandCare	Curing and elevating the qualituy of compost	1.25 hours
09/09/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Hastings LandCare, North Coast LandCare	Transition to simple, innexpensive farm practices	1.75 hours
09/09/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Hastings LandCare, North Coast LandCare	Ground cover, tillage and sustainalble uses	1.5 hours
9/9/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Hastings LandCare, North Coast LandCare	Soil Minerals and developing sustainable farms	3.0 hours
09/09/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Hastings LandCare, North Coast LandCare	Curing and elevating the qualituy of compost	1.25 hours
09/10/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Nambucca Valley LandCare, North Coast LandCare	Soil Biology, Soil Health and Food Quality	2.0 hours
09/10/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Nambucca Valley LandCare, North Coast LandCare	Soil Minerals and developing sustainable farms	1.75 hours
09/10/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Nambucca Valley LandCare, North Coast LandCare	Role of compost in sustainable farming	1.25 hours
09/12/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Tweed Richmond Organic Producers Org.	Soil Biology, Soil Health and Food Quality	2.0 hours
09/12/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Tweed Richmond Organic Producers Org.	Soil Minerals and developing sustainable farms	1.75 hours
09/12/13	Making our Commercial Farms Sustainable	SoilCare, North Coast Regional LandCare	Tweed Richmond Organic Producers Org.	Role of compost in sustainable farming	1.25 hours
09/13/13	Soil health and crop quality for macadamia nut	Macadamias Direct	Australia Macadamia Association, major growers	Transition to simple, innexpensive farm practices	1.25 hours
09/13/13	Soil health and crop quality for macadamia nut	Macadamias Direct	Australia Macadamia Association, major growers	Soil Minerals and developing sustainable farms	3.0 hours
09/13/13	Soil health and crop quality for macadamia nut	Macadamias Direct	Australia Macadamia Association, major growers	Ground cover, tillage and sustainalble uses	.5 hours

2014 entries are not completed as of 1/19/16

05/14/14	Soil Health and Pasture Management Forum	Tweed Shire Council's Sustainable Agriculture Program,	Tweed LandCare		
05/14/14	LandCare Forum Grafton	LandCare Forum Grafton			
05/17/14	Hastings Landcare	Hastings Landcare			
05/19/14	Western Aus	Western Aus			
05/14/14	Managing Soil for Quality Crops	SoilCare, North Coast Regional LandCare	Richmond LandCare	The role of compost in biological farming systems	2 hours
05/20/14	Integrated Soil Health Seminar	Land Conservation Committee District, Lower Black Wood Catchments	Australian government	Soil biology, disease prevention and crop health	6.5 hours

Date	Event Title	Event Producer	Event Sponsors	Presentation Title	Time
07/28/15	Training for Bayer national sales leaders	Bayer CropScience Australia	Bayer Partnering with Innovation Group	Understanding Bacillis subtillis and the Rhizsophere	7 hours
07/28/15	Training for Bayer national sales leaders	Bayer CropScience Australia	Bayer Partnering with Innovation Group	Understanding micronutrients and root health	7 hours
	2015 entries are not completed as of 1/19/16				
11/07/15	National Biological Farming Conference	SoilCare Australia	Australian government, National LandCareProgram	Getting Onboard the Cover Crop Revolution	.75 hours
11/07/15	National Biological Farming Conference	SoilCare Australia	Australian government, National LandCareProgram	What is Quality Compost?	1.5 hours
11/08/15	National Biological Farming Conference	SoilCare Australia	Australian government, National LandCareProgram	Biological transition to Large Scale Veggie Farming	1.5 hours
11/18/15	National Biological Farming Conference	SoilCare Australia	Australian government, National LandCareProgram	Cover Crops for Orchards and Vineyards	.8 hours
11/09/15	National Biological Farming Conference	SoilCare Australia	Australian government, National LandCareProgram	Composting for Orchards, Vineyards and farms	8.0 hours
09/15/94	Kona Coffee Council Meeting	Kona Coffee Council	CTAHR University of Hawai'i	Soil fertility and coffee trees	1 hour
02/14/95	Back to Basics Workshop	Soil Culture Consulting	Kona County Farm Bureau	Biological Integration for Hawai'i Farms	3 hours
01/16/96	Soil Health and Tropical Crops Workshop	Soil Culture Consulting	Hawaii Organic Farmers Association	Soil Biology, Soil Health and Tropical Crop	4 hours
01/17/96	Soil Health and Tropical Crops Workshop	Soil Culture Consulting	Hawaii Organic Farmers Association	Soil Biology, Soil Health and Tropical Crop	4 hours
04/02/98	Hawai'i Organic Farmers Association Meeting	Hawaii Organic Farmers Association	Hawaii Organic Farmers Association	Tropical Soil and Unique Characteristics	1 hour
06/19/98	Hawai'i Coffee Association Annual Conference	Hawai'i Coffee Association	Kauai Coffee Company	Soil Health and Coffee Quality	1 hour
09/04/98	Soil Health Conference	Hawai'i Organic Farmers Association	Hawai'i Farm Bureau, Acres, Maui County	Soil Health and Hawai'i Soils and Crops	2 hours
01/16/99	Na Moku Aupuni O Ko'olau Hui Meeting	Na Moku Aupuni O Ko'olau Hui Meeting	Na Moku Aupuni O Ko'olau Hui Meeting	Soil Testing and Fertilizers for Taro	1 hour
05/02/99	Specialty Coffee Association Annual Conference	Specialty Coffee Association/America	85 Countries	Soil Health and Coffee Quality	1 hour
05/21/99	Aha Kalo o Ke'Anae-Wailua Nui Taro Growers Conference	Na Moku Aupuni O Ko'olau Hui	Queen Lili'uokalani Children's Center	Soil Health and Raising Organic Taro	3 hours
07/20/00	Hawai'i Coffee Association Annual Conference	University of Hawai'i CTAHR	Hawai'i Department of Agriculture	Quality Coffee through Soil Health/Shade	.5 hour
01/27/01	Hawai'i Sustainable Agriculture 2001 Conference	CTAHR University of Hawai'i	CTAHR University of Hawai'i	Organic pest prevention and soil health	.25 hour

Hawaiian Ethos - Medical Cannabis

soilculture@aol.com <soilculture@aol.com> Thu, Jan 21, 2016 at 11:21 PM
To: c.whidden@hawaiianola.com

Hi Chris,

Thank you for the time and effort Hawaiian Ethos and you have given to establish a science based and organic farming venture to learn, improve and and support locally produced food and herbs as medicine. Hawaii residents will benefit from the safe, clean and high quality products, locally produced from Hawaiian Ethos.

I am a farmer who believes that food is our best medicine which makes it a joy to participate in the cultivation of crops that elevate our health and vitality. Legal medicinal *Cannabis* grown and available from local farms is a revolutionary step for our public health.

It would be an honor to work with a team such as you have created with diversified talents, skills and resources in order to support the cultivation of the highest quality of organic medicinal *Cannabis* for a healthier Hawaii and in order to improve the medicinal character of *Cannabis.*

Aloha

Bob

Bob Shaffer, agronomist
Soil Culture Consulting

Kris Jacobson has been working in the northern California area for over 10 years consulting [redacted] commercial green houses.

Greenhouse Manager Responsibilities

• Assign duties and tasks to the staff and supervise them
• Study various greenhouse projects in hand and make correct choices regarding the seeds, ways of breeding and quantity of plants to be grown by managing the budget as well.
• Look for safety policies and regulations and explain them to the staff under them.
• Determine the demand of the market and plan the cultivation accordingly.
• Hire new employees and train them well in various gardening and greenhouse techniques.
• Identify the best plants commercially and economically and look for problems like diseases, various insects and pests affecting them.
• Select the best seeds for cultivation, the best plant nutrients, fertilizers, pesticides and the best gardening equipment.
• Constantly visit the work areas to understand the soil conditions, inspect plants and crops and manage the work over there.
• Demonstrate the various techniques to take care of plants, nurseries in front of individual gardeners, commercial gardeners and clients.
• Inspect the gardening equipment and other greenhouse facilities to check for disrepairs and maintain them properly
• Undertake any other responsibilities as said by the organization.
• Energy conservation for greenhouses
• Greenhouse production
• Greenhouse construction
• Diagnosing greenhouse crop problems
• Light and photoperiod control management
• Media and water management
• Pest and disease management
• Nutrition and fertilization management

Kris consulted with [redacted] companies in Sonoma, Mendocino and Humboldt Counties

Has a certificate in green building and sustainability development

Green Building Professional Certificate
Focused on developing the understanding necessary to enable holistic building decision-making within a corporate, institutional, non-profit or individual setting.

Some topics included: site selection, water efficient practices, energy resources and end uses, materials, and indoor environmental quality.

Project Management
• Handled many projects including, planning, purchasing, take offs and blue print reading
• Worked side by side with contractors and other building professionals to complete various tasks on a day-to-day basis

Aloha,

Kristo Consulting has spent the last several years building relationships with a large number of communities and organizations that are focused on producing the most optimal quality organic foods, medicines and retail products in order to promote health, happiness, and quality of life for the people of California and Hawaii. I believe that Hawaiian Ethos shares a common aim and will contribute innovatively to this goal.

I have great confidence in the success of Hawaiian Ethos' mission of bringing the highest quality medical cannabis to the people of Hawaii. It will be a privilege to work with such a team of like-minded individuals each possessing a firm commitment to excellence, attention to detail, and a variety of expertise. I look forward to contributing my knowledge and experience in both management and cultivation to such a promising endeavor. Thank you for the opportunity.

Sincerely,

Kristopher Jacobson, Owner
Kristo Consulting LLC

HawaiianEthos

Medical Advisory Board

Lawrence Steinman, MD

CURRICULUM VITAE

LAWRENCE STEINMAN, M.D.

Born:	November 14, 1947, Los Angeles, California
Child:	Jonathan Baruch Steinman

Education

B.A.	Dartmouth College, 1964-1968 Major: Physics; Minor: Russian, Phi Beta Kappa, Magna Cum Laude
M.D.	Harvard University, 1968-1973
NIH Fellow	Chemical Neurobiology at Harvard Medical School with Torsten Wiesel, 1970-71

Post-graduate Training

Internship:	1973	Stanford University Hospital, Surgery
Resident:	1974	Stanford University Hospital, Pediatrics
Resident:	1977-1980	Stanford University Hospital, Pediatric and Adult Neurology
Fellow:	1975-1977	Weizmann Institute of Science, Chemical Immunology
	1975-1976	Aharon Katzir Katchalsky Fellow
	1976-1977	National Institutes of Health Visiting Fellow

Academic Posts

Assistant Professor:	1980-1985	Stanford University, Departments of Neurology and Pediatrics
Associate Professor:	1985-1991	Stanford University, Departments of Neurology, Pediatrics and Genetics
Professor	1994-1997	Weizmann Institute of Science
Professor	1991-present	Stanford University, Departments of Neurology and Neurological Sciences, Pediatrics and Genetics
Chairs	2002-2011	Chairman, Stanford University Program in Immunology
	2008-present	Incumbent of GA Zimmermann Chair as Professor of Neurological Sciences, Neurology, and Pediatrics

Lawrence Steinman, MD

Professional Awards and Prizes

1979	S. Weir Mitchell Award, American Academy of Neurology
1981-1986	Teacher-Investigator Award, National Institutes of Health
1988-2002	Senator Jacob Javits Neuroscience Investigator Award from Congress of the United States and National Institutes of Health
1994	Dr. Friedrich Sasse Award for Outstanding Contributions in Immunology from the Free University of Berlin
2004	John M. Dystel Prize for Outstanding Contributions in Multiple Sclerosis Research, National MS Society & the American Academy of Neurology
2004	Outstanding Inventor Stanford University
2008	Honorary Doctorate Hasselt University
2009	Elected to Institute of Medicine, renamed National Academy of Medicine (2015)
2011	Charcot Prize for Lifetime Achievement in MS Research- International Federation of MS Societies
2015	Elected to the National Academy of Sciences
2015	Anthony Cerami Award in Translational Medicine

Professional Organizations
American Academy of Neurology
Fellow American Academy of Neurology
American Neurological Association
American Association of Immunologists
Clinical Immunology Society

Board Certification
American Board of Psychiatry and Neurology (Neurology), 1984

Patents [partial list]
1.Immunotherapy of Autoimmune Disease, US Patent Number 4,695,459
2. Polypeptide Pertussis Toxin Vaccine, US Patent Number 5,000,952
3. Anti-T-Cell Receptor Determinants as Autoimmune Disease Treatment, Patent EP 0340109B1.
4. T cell receptor variable transcripts as disease related markers. US patent 5667967 9/16/97.
5. Treatment of central nervous system inflammatory disease with matrix metalloprotease inhibitors. US Patent 5532265
6. DNA Vaccination for induction of suppressive T cell response. US patent 5,939,400
7.Treatment of Demyelinating Disease with Ordered Peptide, US patent 6531130,
8. Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein U.S.6,329,499
9. Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein U.S.6,369,033

10. Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein U.S.6,489,299
11. US 6740638 Methods for treatment of multiple sclerosis using peptide analogues of human myelin basic protein
12. EP0792286 Methods for treatment of multiple sclerosis using peptide analogues at position 91 of human myelin basic protein
13. US 7030098 DNA Vaccination to Treat Autoimmune Disease
14. US 7070780 Treatment of Demyelinating Disease with Ordered Peptide.
15. US 6794414 Methods and Compositions for Treating Diseases Mediated by Transglutaminase Activity
16. Osteopontin Related Methods and Compositions, US Patent 10/495,893 allowed 6/11/2007
17. DNA Vaccination for Treatment of Autoimmune Disease (Treating Type 1 Diabetes Mellitus) notice of allowance on appication 11/289,266
18. Polynucleotide Therapy (Treating IDDM), Notice of Allowance US Patent Application 10/302,098, Expiration March 16, 2024. See related patents:
19. US 7811813 Methods and Immune Modulatory Nucleic Acid
DNA Vaccination for Treatment of Autoimmune Disease (Treating Type 1 Diabetes Mellitus) see related patents including
20. US7,579,328;
21. US7,544,669;
22. AU2002362019;
23.CN02827318.4;
24. NZ533294;
25. EP 1,931,390;
26. AU 20329440;
27. EP 1,569,696;
28. NZ 540,276;
29.IL168715;
30. JP 4750419
31. Therapeutic and Diagnostic Uses of Antibody Specificity Profiles, 10/120,578, Expiration April 10, 2022
32. US Patent No. 7,875,589, "Alpha B-Crystallin as a Therapy for Rheumatoid Arthritis", issued January 25, 2011
33. US Patent No. 7,867,976 NOGO Epitopic Fragments for Modulating Immune Response, Issued Jan 11, 2011
34. US Patent No. 8148084 Diagnosis of Autoimmune Disease, Issued April 3, 2012
35. US 8,257,700, "Proteomic Analysis of Active Multiple Sclerosis Lesions"
36. US 8,252,775, "Method of Treating MS With Phosphocholine Containing Lipids."
37. US 8,771,689 Alpha B-Crystallin as a Therapy for Ischemia or Inflammation
38. U.S. Patent No. 8,835,391, "Alpha B-Crystallin as a Therapy for Multiple Sclerosis

Administrative & Advisory Posts

Advisory Committee on Pertussis Immunization, Institute of Medicine,	1987-1990
Fellowship Advisory Committee, National Multiple Sclerosis Society	1988-1991
Grant Review Committee, National Multiple Sclerosis Society	2006-2011
Medical Advisory Committee, Muscular Dystrophy Association	1990-2002
Medical Advisory Committee, National Multiple Sclerosis Society	1990-1995
Member Immunological Sciences Study Section, NIH	1991-1995

Advisory Committee, Institute of Medicine, on "Multiple Sclerosis & Other

Lawrence Steinman, MD

Neurologic Disorders in Veterans of the Persian Gulf & Post-9/11 Wars" 2015-present

Editorial Posts

International Immunology, Transmitting Editor	1988-2006
Journal of Immunology, Associate Editor	1991-1995
Neurobiology of Disease, Associate Editor	1998-present
Proceedings of the National Academy of Sciences	2015-present

Business Positions

Centocor, Board of Directors 1991-1999, when sold to Johnson and Johnson
Neurocrine Biosciences, Founder Advisor 1992-2005, Board of Directors 2001-2005
Roche Biosciences, Scientific Advisory Board 1998-2002
Bayhill Therapeutics, **Founder** 2001-2011, Head of SAB, and member of Board of Directors
Atreca, Founder 2011 and member of Board of Directors
Cardinal Therapeutics Founder 2008, Board of Directors
Transparency Life Sciences Founder 2011, Head Scientific Advisory Board
Tolerion, Founder 2013, Board of Directors
Receptos SAB 2012-present

Lawrence Steinman, MD

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Journals

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3. Steinman L and Ames A. The sites of synthesis and the subsequent migration of newly synthesized protein in retina. *Tissue and Cell*, 6:137, 1971.

4. Steinman L. Maldistribution of physicians in Yugoslavia. *Journal of Medical Education,* 49:182, 1974.

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6. Teitelbaum D, Steinman L and Sela M. Unprimed spleen cell populations recognize macrophage-bound antigen with opposite net electrical charge. *Proceedings of the National Academy of Sciences USA,* 74:1693, 1977.

7. Lonai P and Steinman L. Physiological regulation of antigen binding to T cells: Role of a soluble macrophage factor and of interferon. *Proceedings of the National Academy of Sciences USA,* 74:5662, 1977.

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9. Lonai P, Steinman L, Zeicher M and Puri I. Physiological regulation of the H-2 complex. *Cellular Immunology*, 27:341, 1977.

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11. Lonai P, Ben-Neriah Y, Steinman L, and Givol D. Selective participation of immunoglobulin V region and major histocompatibility complex products in antigen binding T cells. *European Journal of Immunology,* 8:827, 1978.

12. Sogg R, Steinman L, Rathjen B, Tharp B and O'Brien J. Cherry red spot myoclonus syndrome. *Ophthalmology*, 86:1861, 1979.

13. Steinman L, Cohen I and Teitelbaum D. Natural occurrence of thymocytes with receptors for myelin basic protein. *Neurology (Minneapolis)*, 30:755, 1980.

14. Steinman L, Dorfman L, Tharp B, Forno L, Kelts K, O'Brien J and Sogg R. Peripheral neuropathy in the cherry red spot-myoclonus syndrome (Sialidosis Type 1). *Annals of Neurology,* 7:450-456, 1980.

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21. Steinman L, Sriram S, Adelman NE, Zamvil S, McDevitt HO and Urich H. Murine model for pertussis vaccine encephalopathy: Linkage to H-2. *Nature*, 299:738-740, 1982.

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24. Waldor M, Sriram S, McDevitt HO and Steinman L. *In vivo* therapy with monoclonal anti I-A antibody suppresses immune response to acetylcholine receptor. *Proceedings of the National Academy of Sciences USA,* 80:2713-2717, 1983.

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26. Sriram S and Steinman L. Anti I-A antibody suppresses active encephalomyelitis: Treatment model for IR gene linked diseases. *Journal of Experimental Medicine,* 158: 1362-1367, 1983.

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Lawrence Steinman, MD

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Arthritis Rheumatol. 2015 Dec 4. doi: 10.1002/art.39535.

Completed: 12/14/15

OMB No. 0925-0001/0002 (Rev. 08/12 Approved Through 8/31/2015)

BIOGRAPHICAL SKETCH

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NAME: Lawrence Steinman

eRA COMMONS USER NAME (credential, e.g., agency login): STEINMAN.LAWRENCE

POSITION TITLE: Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Dartmouth College, Hanover, NH	BA	1968	Honors Physics
Harvard Medical School, Boston MA	MD	1973	Medicine
Weizmann Inst. Of Science, Rehovot Israel	Post-doc	1977	Chemical Immunology
Stanford University, Stanford, CA	Residency	1977-80	Neurology

A. Personal Statement

I have expertise in both cellular and molecular immunology, transcriptomics, proteomics and lipidomics. I chaired the Interdepartmental Program in Immunology at Stanford, and I am a Board Certified Neurologist. I have developed several therapies for MS, with one achieving FDA approval-Natalizumab.

B. Positions and Honors

Academic Posts

1980 –1985	Assistant Professor, Stanford University, Depts. Neurology & Pediatrics
1985 – 1991	Associate Professor, Stanford University, Depts. Neurology, Pediatrics and Genetics
1991 – Present	Professor, Stanford University, Depts. Neurology & Neurological Sciences, Genetics and Pediatrics
2002-2011	Chairman, Stanford University, Interdepartmental Program in Immunology
2008	George A. Zimmermann Endowed Chair Stanford University, inaugurated

Professional Awards & Prizes

1979	S. Weir Mitchell Award, American Academy of Neurology
1981-1986	Teacher Investigator Award, National Institutes of Health
1987-2002	Senator Jacob Javits Neuroscience Investigator Award, NIH, Twice Awarded
1994	Friedrich Sasse Award in Immunology from the Free University of Berlin
2004	John Dystel Prize for Multiple Sclerosis, National MS Society & Amer. Acad. of Neurology
2004	Stanford University Outstanding Inventor Award
2008	Honorary PhD Universiteit Hasselt, Limburg Belgium
2009	Elected to Institute of Medicine, renamed (2015) National Academy of Medicine
2011	Charcot Prize for Lifetime Achievement in MS Research
2015	Election to National Academy of Sciences

Advisory Posts

1985;1991-1996	Member, Immunologic Sciences Study Section, NIH,
1990 - Present	Medical Advisory Board, Muscular Dystrophy Association
1987-1990	Member, National Institute of Medicine Advisory Committee on Pertussis Immunization,

1988-1991	National Multiple Sclerosis Society Medical Advisory Committee, Advisory Committee on Fellowships
2006-2011	National Multiple Sclerosis Society Research Grant Review Committee

Board Certification
American Board of Psychiatry and Neurology (Neurology)

C. Contribution to Science

I have studied the pathogenesis of relapse and remission in multiple sclerosis. The work encompassed animal models, combined with analysis of the molecular pathology within MS brain material itself, and culminated in a major new therapy for MS. 1. We first isolated cloned T cells inducing relapsing paralysis and analyzed their precise specificities, T cell receptors, and homing receptors. 2.We then showed that alpha4 integrin was critical for lymphocyte traffic into MS brain. 3. We showed that a key receptor for this integrin, osteopontin, triggered neurological relapses, and then dissected the underlying molecular mechanisms. Osteopontin modulates pro-inflammatory cytokine production and also serves as a survival molecule by inhibiting apoptosis of myelin reactive T cells, via its effect on the transcription factor, Fox03a. 4. Our analyses of MS lesions identified a key mediator of neurological remission, the protective chaperone, aB crystallin. We demonstrated how crystallin inhibits key aspects of brain inflammation and degeneration. We also identified other key molecules in lesions that are targeted by already approved drugs for other indications. 5. Although our work has produced a highly effective approved treatment for more than 100,000 patients with multiple sclerosis, we are driving towards antigen specific approaches to treat autoimmune disease, and have taken them into Phase 2B in the clinic.
http://www.ncbi.nlm.nih.gov/sites/myncbi/lawrence.steinman.1/bibliography/41163830/public/?sort=date&direction=ascending

Contribution 1:
Zamvil S, Nelson P, Trotter J, Mitchell D, Knobler R, Fritz R and Steinman L. T cell clones specific for myelin basic protein induce chronic relapsing EAE and demyelination. *Nature,* 317:355-358, 1985

Oksenberg JR, Panzara MA, Begovich AB, Mitchell D, Erlich HA, Murray RS, Shimonkevitz R, Sherritt M, Rothbard J, Bernard CCA, and Steinman L. Selection for T cell receptor Vb-Db-Jb gene rearrangements with specificity for a myelin basic protein peptide in brain lesions of multiple sclerosis. *Nature*, 362:68-70, 1993.

Steinman L. Immunology of Relapse and Remission in Multiple Sclerosis. *Annu Rev Immunol.* 32:257-81, 2014. doi: 10.1146/annurev-immunol-032713-120227.

Contribution 2:
Yednock T, Cannon C, Fritz L, Sanchez-Madrid F, Steinman L, and Karin N. Prevention of experimental autoimmune encephalomyelitis by antibodies against a4b1 integrin. *Nature* , 356:63-66, 1992.

Steinman L. The Discovery of Natalizumab, A Potent Therapeutic for Multiple Sclerosis. *Journal of Cell Biology* 199(3):413-6, 2012

Contribution 3:
Chabas D, Baranzini S, Mitchell D, Bernard CCA, Rittling S, Denhardt, D, Sobel R, Lock C, Karpuj M, Pedotti R, Heller R, Oksenberg J, Steinman L. The influence of the pro-inflammatory cytokine, osteopontin, on autoimmune demyelinating disease. *Science,* 294:1731-1735, 2001.

Steinman L. A molecular trio in relapse and remission for multiple sclerosis. *Nature Reviews Immunology*, 9:440-447, 2009

Contribution 4:
Ousman S, Tomooka B, Van Noort J, Wawrousek E, O'Conner K, Hafler D, Sobel R, Robinson W, Steinman L. Protective and therapeutic role for aB-crystallin in autoimmune demyelination. *Nature*, 448:474-479, 2007.

Han MH, Hwang S, Roy DB, Lundgren DH, Price JV, Ousman S, Fernald G, Gerlitz B, Robinson WH, Baranzini SE, Grinnell BW, Raine CS, Sobel RA, Han DK, and Steinman L. Proteomic Analysis of Active Multiple Sclerosis Lesions Reveals Therapeutic Targets. *Nature*, 451:1076-1081, 2008.

Kurnellas MP, Adams CM, Sobel RA, Steinman L and Rothbard JR. Amyloid Fibrils Composed of Hexameric Peptides Attenuate Neuroinflammation. *Science Translational Medicine*, 179 179ra42, 2013

Steinman L. No Quiet Surrender: Molecular Guardians In Multiple Sclerosis Brain. Journal of Clinical Investigation, 125: 1371-1378, 2015

Kurnellas MP, Ghosn EE, Schartner JM, Baker J, Rothbard JJ, Negrin RS, Herzenberg LA, Fathman CG, Steinman L, Rothbard JB. Amyloid fibrils activate B-1a lymphocytes to ameliorate inflammatory brain disease. Proc Natl Acad Sci U S A. 2015 Dec 8;112(49):15016-23.

Contribution 5:
Robinson, WH, Fontoura P, Lee BJ, Neuman de Vegvar HE, Tom J, Pedotti R, DiGennaro C, Mitchell DJ, Fong D, Ho PK, Ruiz P, Maverakis E, Stevens D, Bernard CCA, Olsson T, Martin R, Kuchroo VK, van Noort JM, Genain CP, Utz PJ, Garren H, and Steinman L. Reverse genomics: Protein microarrays guide tolerizing DNA vaccine treatment of autoimmune encephalomyelitis, *Nature Biotechnology* 21:1033-1039, 2003.

Garren H, Robinson W, Krasulová E, Havrdová E, Nadj C, Selmaj K, Losy J, Nadj I, Radue EW, Kidd BA, Gianettoni J, Tersini K, Utz PJ, Valone F, Steinman L and the BHT-3009 Study Group. Phase 2b Trial of a DNA Vaccine Encoding Myelin Basic Protein in Relapsing Multiple Sclerosis. *Annals of Neurology*, 63(5):611-620, 2008

Roep BO, Solvason N, Gottlieb PA, Abreu JRF, Harrison LC, Eisenbarth GS, Yu L, LevitenM, Hagopian WA, Buse JB, von Herrath M, Quan J, King R, Robinson WH, Utz PJ, Garren H, the BHT 3021 Investigtors and Lawrence Steinman. Plasmid encoded proinsulin preserves C-peptide while specifically reducing proinsulin specific CD8 T cells in type 1 diabetes. *Science Translational Medicine*, Jun 26;5(191):191ra82. doi: 10.1126/scitranslmed.3006103, 2013

Steinman L. The Road Not Taken: Antigen-Specific Therapy and Neuroinflammatory Disease. *JAMA Neurology*, 1:1-2. doi: 10.1001/jamaneurol.2013.3553.

D. Research Support **Ongoing Research Support**

Guthy Jackson Foundation Steinman, L (PI) 11/1/08 – 10/31/16
Proteomic Studies Leading to Tolerizing Therapy in Neuromyelitis Optica
The major goal of this grant is to develop a tolerogenic therapy for neuromyelitis optica, by studying the diversity of the adaptive immune response in patients with the disease. Role: PI

National MS Society Steinman, L (PI) 4/1/14-3/30/17
Guardian Action of Amyloid Molecules in MS Role: PI

Completed Research Support
Muscular Dystrophy Foundation Steinman, L (PI) 2/1/12-1/30/15
Tolerizing Therapy for Dystrophin in Duchenne's Dystrophy
The major goal of this grant is to develop antigen specific tolerizing therapy for dsytrophin for gene replacement therapy in Duchenne's Muscular Dystrophy. Role: PI

JT Corporation Steinman, L (PI) 4/27/13-4/26/15
Development of small molecular oral inhibitor of IL-17 transcription. Role: PI

Pfizer Steinman, L (PI) 2/1/13-4/1/15
Blockade of IL-7R for Progressive Forms of MS

The major goal of this grant is to explore the potential of blockade of IL-7R as a therapy for SPMS. Role: PI

National MS Society Steinman, L (PI) 10/1/13-9/30/16
Pre-Clinical Studies on Predictive Serum Biomarker for Response to beta-interferon in RR MS.
Major goal is to identify biomarkers for response to type 1 interferons in RRMS. Role: PI

RESUME: Dale B. Bonar, Ph.D.

EDUCATION

H.S. 1963	Punahou School, Honolulu, HI
B.A. 1967 (Biology)	Whitman College, Walla Walla, WA
M.S. 1970 (Marine Science)	University of the Pacific, Stockton CA
Ph.D. 1973 (Zoology)	University of Hawaii (Pacific Biomedical Research Ctr.), Honolulu, HI
NIH Postdoctoral Fellowship	Brandeis Univ., Woods Hole Marine Biological Labs 1973-1974

Training Resources for the Environmental Community Training Workshops (1998 - 2000)
ICA Training Workshops (2000)
Participatory Group Facilitation Methods

PRIMARY EMPLOYMENT

2012-	**Consultant**, National Conservation Team, Solid Ground Consulting
2011-12	**Executive Director,** Hawaiian Islands Land Trust, HI (until retirement)
2002-11	**Executive Director**, Maui Coastal Land Trust, Maui, HI
2001-02	**Director**, Land Trust Alliance Northwest Program, Seattle, WA
1998-00	**Associate Director**, Land Trust Alliance Northwest Program, Seattle, WA
1993-	**Principal**, Aquatic Environmental Services, Port Townsend, WA
1991-93	**Principal**, Pacific Rim Mariculture, Port Townsend, WA
1989-91	**NORCUS Scientific Investigator**, Battelle Pacific Northwest Labs, Marine Science Lab, Sequim, WA
1985-91	**Associate Research Scientist**, Center of Marine Biotechnology, Univ. of Maryland, Baltimore, MD
1974-91	**Assistant/Associate Professor**, Department of Zoology, University of Maryland, College Park, MD
1973-74	**NIH Postdoctoral Fellow**. Brandeis University and Woods Hole Marine Biological Lab. Woods Hole, MA

ACADEMIC TEACHING AND TRAINING EXPERIENCE

Taught undergraduate and graduate courses in genetics, cell and developmental biology, marine biology, and environmental sciences at the University of Maryland (College Park) and at the University of Washington Friday Harbor Labs.

Supervised 14 M.S. students, 7 Ph.D. students, 5 Post-Doctoral Associates, 4 technicians and numerous undergraduate research projects.

ACADEMIC PUBLICATIONS AND PATENTS

1972-98:
Sixty-four full papers, abstracts, book chapters or technical articles in the open literature.

Numerous unpublished technical reports and contract documents provided for clients.

Four patents on marine bacterial products that enhance oyster metamorphosis

OTHER ACADEMIC EXPERIENCE

Served on, and chaired, numerous departmental, university, and national committees ranging from a restructuring of the Zoology undergraduate curriculum to evaluating potential projects for space shuttle studies.

Served on numerous grant review panels for Maryland Sea Grant, National Science Foundation, National Institutes of Health, Office of Naval Research, US Department of Agriculture

Member of a United Nations Advisory Group on Marine Biotechnology for Kuwait.

Presented over 150 research seminars nationally and internationally.

GRANTS AND CONTRACTS

Academic Research Funding (including collaborative efforts)

1974-91: Almost $8 Million dollars in state, federal and private funding

Community Funding in Port Townsend and Jefferson County for land or easement acquisition in wildlife and riparian corridors.

1995-98: Approximately $552,000

Community Funding in Maui County for land acquisition

2002-2004:	$4,800,000+ for acquisition of Waihe`e Preserve
2004-	Over $900,000 for Waihe`e restoration activities
2007-	$ 2,304,000 for acquisition of agricultural easements
2008-	$4,000,000 for acquisition of Nu`u Wetlands

Honors and Awards

Hawaii Community Foundation Ho`okele Award for Nonprofit leadership, 2007

Community Service

(Last 10 years)

2004 – 2006	Maui County Wastewater Reclamation Facility Project Core Workgroup Member
2004 – 2012	Hawaii State Natural Areas Reserve System Commission (Chair 2005-2012)
2006-2012	Hawaii State Legacy Land Conservation Commission Chair
2006 - 2008	Na Hale O Maui (Community Land Trust) Founding Board Member
2007– 2013	Maui Nui Marine Resources Council Member
2008 - 2009	Governor's Innovation Awards Selection Committee Member
2012-	The Merwin Conservancy, Board Member
2012-	Hospice Maui, Board Member
2013-	Hawaii Farm Union United Legislative Committee Member
2015-	Hawaii Farm Union Foundation Board Member

DANIEL LIEBERMAN, MD

Board Certified Child/Adolescent and Adult Psychiatrist

68-1118 N. Kaniku Drive, # 602
Kamuela, HI 96743
Tel: 631-495-1801/808-640-2045
dlieberman@psychservers.com

CURRICULUM VITAE

SUMMARY

Current:

Clinical Director. Child/Adolescent Mental Health Division. Department of Health. State of Hawaii.

- **Oversight of all clinical services, supervision and clinical training**
- **Telepsychiatry Development and Oversight: Clinical Director**
- **Collaborative Health Initiative with Hawaii Primary Care: Clinical Director and Lead Psychiatrist**
- **Electronic Medical Record Task Force – Psychiatric Lead**

Assistant Clinical Professor. University of Hawaii. Department of Psychiatry.

- **Child/Adolescent Residency Training Committee**
- **Child/Adolescent Residency Evaluation Committee**
- **Fellowship Career Supervisor**
- **Lecturer: Techniques of Psychodynamic Psychotherapy**
- **Clinical supervision of Child Fellows**
- **Collaborative Healthcare initiative with Department of Family Practice, University of Hawaii**

Private Practice Consulting. Waimea. Hawaii

- **Psychiatric Consultant to Hawaii Preparatory Academy**
- **Telepsychiatry practice in New York**
- **IMX Medical Management Services Consultant**
- **Veterans Evaluation Services: Disability Evaluations**

American Academy of Child/Adolescent Psychiatry

- **Co-chair Telepsychiatry Committee**

SUMMARY continued

American Telemedicine Association

- **Policy Committee Special Interest Group Member**
- **Telementalhealth Committee Special Interest Group Member**

Publication:

- **Kathleen Myers, MD, MPH, MS and Daniel Lieberman, MD. "Telemental Health: Responding to Mandates for Reform in Primary Healthcare." Mary Ann Liebert, Inc. Vol. 19 No. 6. June 2013. Telemedicine and E-Health**

Recent Past: 2001-2008

Private Practice. **Board Certified Child/Adolescent and Adult Psychiatry**. Huntington and Bay Shore, N.Y.

- ***Expertise in Autism,*** Mood Disorders, Anxiety Disorders, Attention Deficit and other associated Language and Learning Disabilities. School evaluations and reports.

Medical Director. Part-time. **Family Counseling Service**. Westhampton Beach, N.Y.

Medical Director Part-time. **New York- Columbia Presbyterian Health Plan**. N.Y., NY. Part-time.

Psychiatric Consultant. **Cleary School for the Deaf**. Nesconset, N.Y.

Psychiatric Consultant. **Gersh Academy Schools for Autistic and Neurobiologically Impaired Children.** Commack, N.Y.

Psychiatric Consultant **to local school districts**:

- Eastern Suffolk BOCES. Department of Special Education.
- West Islip Public Schools. Department of Special Education.
- East Islip Public Schools. Department of Special Education.
- Babylon Public Schools. Department of Special Education.
- Connetquot Public Schools. Department of Special Education. Psychiatric evaluations and reports.

Psychiatric Peer Review Consultant. IPRO. New Hyde Park, N.Y.

Past:

ValueOptions, Inc. Behavioral Health Corporation. Medical Director, Northeast Region. New York City.

ValueOptions. Corporate Quality NCQA 'Readiness Team'.

National Committee for Quality Assurance. (NCQA) Chairman level accreditation surveyor for Managed Behavioral Healthcare Organizations and Managed Care Organizations.

NCQA. Consultant to Managed Behavioral Healthcare Scoring Guidelines Task Force.

NCQA. Faculty for Managed Behavioral Healthcare Training Seminars and Planning Committee.

Merit/Magellan Behavioral Care. Corporate Medical Director/Executive Director. New York City.

Psydyne Mental Health Corporation/New York City. N. Y.

JCCA Consultant Psychiatrist for Child/Adolescent Group Home and Foster care.

New York Center for Short-Term Dynamic Psychotherapy. Clinical Associate.

Prest Associates. Independent Medical Peer Review Organization. Consultant

Private Practice. Short-term dynamic psychotherapy. New York City.

PROFESSIONAL EXPERIENCE

June 2008 – Present Clinical Director for the Hawaii State Department of Health. Waimea, HI

Clinical Director for statewide development of Telepsychiatry and Collaborative Healthcare initiatives with Primary Care. Electronic Healthcare Record Task Force psychiatric lead. Psychiatric oversight of all clinical and care management activities, providing access to clinical services for families and children with serious emotional and

behavioral disorders. Responsibilities include clinical consultation, expert second opinion consultations, liaison with provider agencies, liaison with Department of Education including participation in coordinated service planning meetings, senior management team meetings, Quality Improvement Committee member, Evidence Based Services task force.

September 2001 – May 2008 Private Practice. Child/Adolescent and Adult Psychiatry. Huntington, N.Y. /Bay Shore, N.Y.

Child/Adolescent and Adult Psychiatric evaluations and treatments. Expertise in Mood disorders: Depression and Bipolar Disorders; Anxiety Disorders: Panic Disorder, School Refusal, Selective Mutism, OCD, Trichotillomania; Autism and associated PPD spectrum disorders

Specialty Expertise in Short-term Psychodynamic Psychotherapy, Psychopharmacology, Family and Marital Therapy, and Child Play Therapy

January 2006 – May 2008 Family Counseling Service. Medical Director Westhampton Beach, New York.

Psychiatric consulting to staff psychologists and social workers. Program development, school evaluations, child and adult psychiatric evaluations, individual and family therapy, medications evaluations and management.

April 2003 – May 2008 Psychiatric Consultant to various private and public schools. New York.

Gersh Academy Schools: "I AM I CAN PROGRAM". Private School for Children with Neurobiological-based disorders such as Autism, Asperger's, PDD, Tourette's, Bipolar Spectrum Disorders. language and learning disorders.

On-site Psychiatric Consultant for program development of school-based psychiatric services, including school- based observations; consult liaison activities, staff training and supervision, parent trainings, family evaluations to enhance school –based intervention, home-based observations, and behavioral intervention development and supervision.

Cleary School for the Deaf. Nesconset, N.Y.

Psychiatric consultation for the student population, program development, clinical supervision of the counseling, psychology, social work and educational staffs.

West Islip Public Schools. Department of Special Education.

Psychiatric consultant: psychiatric evaluations for Department of Special Education.

Connetquot Public Schools. Department of Special Education.

Psychiatric evaluations and reports

East Islip Public Schools. Department of Special Education.

Psychiatric evaluations and reports

Eastern Suffolk BOCES. Department of Special Education.

Psychiatric evaluations and reports

Babylon Union Free School District, Department of Special Education.

Psychiatric evaluations and reports

October 2004 – May 2008 New York-Presbyterian Community Health Plan

Part-Time Medical Director:
Family Health Plus, Medicaid and Child Health Plus

November 2001 – December 2003 Prest & Associates:

Peer Review Consultant: Reviewed cases for both concurrent and retrospective care regarding meeting medical necessity guidelines.

September 1996 – July 2001 Regional Medical Director/ Northeast Region

ValueOptions, Northeast Region / NYC

Senior Medical Officer for Northeast Region including contracts in New York, New Jersey, Connecticut, Vermont and Massachusetts. Contracts include multiple product lines of commercial and Public Sector business (Risk, ASO, EAP and integrated products, disability management, etc).

Summary:

- Clinical Integration specialist
- Oversight of Clinical Quality Initiatives for the Region in conjunction with the Clinical and Quality Management Staffs
- Design and develop new clinical delivery models
- Interface with professional organizations and consumer stakeholder organizations
- Oversights of Provider seminars, conferences, focus groups, etc.
- Oversight of Regional Utilization Management and Provider Practice Patterns
- Promote development of Practice Guidelines, clinical algorithms, and best clinical practices
- Supervision of the Service Center Associate Medical Directors
- Supervision of the Senior Clinical Delivery Team for the Region
- Participation on Client Quality Management Committees
- Represent the Region on Corporate Committees for Clinical Policy and Standards, Quality Improvement Activities, National Credentialing Committee, Corporate

Medical Directors, and various task forces such as Disease Management Program Development

Clinical oversight and program development for 5 million life insured population throughout the Northeast: e.g. New York City and State employee contracts, Federal employee contract, Capital District Physicians Health Plan, PHS of CT, and various Public Sector contracts throughout the Tri-State region. Supervision of Associate Medical Directors in Northeast Service Centers. Develop and implement staff and provider forums and clinical training throughout the region. Pilot multispecialty group model being implemented nationally. Senior Management team member for all Regional Service Centers. Co-chairman for all Northeast Service Centers' Quality Improvement and Utilization Management Committees. Member of Corporate NCQA Task Force, Corporate Utilization Management Committee, Corporate Clinical Policy and Standards Committee, Corporate Utilization Management Committee, Corporate Out-Patient Treatment Record Review Task Force, Corporate Child Welfare Criteria Task Force, Corporate Medical Director Mentor, and participation on client Quality Improvement Committees and Advisory Boards (Group Health Insurance, Capital District Physicians' Health Plan, PHS, Merck).

July 1994 – June 2000 NCQA: Physician Surveyor

National Committee for Quality Assurance

Chairman level accreditation surveyor reviewing nationally based health plans, Managed Care Organizations and Behavioral Healthcare Organizations. Task force to develop drafts Scoring Guidelines for the Managed Behavioral Healthcare Organization Accreditation Programs. Faculty for seminars and training regarding MBHO accreditation surveys.

Summary:

- Managed Behavioral Healthcare Organizations Scoring Task Force
- Chairman of survey teams for Managed Behavioral Healthcare Organization
- Reviewed 17 Managed Care Organizations, chairman on eight survey teams
- Expertise in evaluating Quality Improvement Programs

July 1990 - June 1994 Corporate Medical Director. Mid-Atlantic Region

Merit/Magellan Behavioral Care

Senior Medical and Operations VP for New York. Responsible for clinical, administrative and financial operations. Managed behavioral health organization serving population of 500,000 covered lives. Developed and implemented national model for Urgent Care Centers. Integrated product line with broad client base including HM, Government contracts, EAP, State

Medicare/Medicaid. Senior clinical oversight of Quality Improvement and Utilization Management activities. Oversight of all marketing, network development, contracting, financial and budgetary accountability and management of New York City office staff, 800 providers and

30 facilities.
Summary:

- Initiated clinical teaching seminars for staff and clients, including hospital based case conferences
- Developed, implemented and chaired Quality Improvement Committee
- Member of client organizations Quality Improvement Committees
- Presented Corporate-wide Risk-management seminars
- Trained staff and client Utilization Management Departments in Suicide Assessment
- Increased client membership from 215,00 to 500,000 covered lives
- Developed case-based rates for childhood disorders

July 1989 - November 1990 Consultant Psychiatrist. Group Homes Division

Jewish Child Care Association/New York City. N. Y.

Multidisciplinary treatment team for children and adolescents in group home settings. Provided psychiatric evaluations, medications consults, developmental disabilities assessments, and short-term psychotherapy treatments. Supervised staff, presented seminars on psychopharmacology, depression/suicide evaluations, and various topics in child psychopathology and short-term psychotherapy.

July 1987 - June 1989 Psychiatric Consultant

Psydyne Mental Health Corporation/New York City. N. Y.

Psychiatric evaluations for behavioral managed care organization, whose clients included US Healthcare and Oxford.

September 1985 - June 1989 Clinical Associate

New York Center for Short-Term Dynamic Psychotherapy/New York City. N. Y.

Short-term therapy institute with supervision and training by Habib Davenloo, M. D. Formal training in theory, technique and practice of short-term psychodynamic psychotherapy (STDP). Clinical practice in STDP.

EDUCATION, TRAINING AND RESEARCH

1967 – 1971: New York University. University Heights Campus B.A. English Literature

Bronx. N. Y.

1971 – 1972: New York University. Washington Square Campus Graduate Division

New York City. N. Y. Children's Literature

1972 – 1973: New Paltz State College Graduate Division

New Paltz. N. Y. Advanced Biology

1973 – 1976: University of Guadalajara Medical School Medical School

Guadalajara. Mexico

1976 – 1978: McGraw - Hill Book Company Medical Text Division

Wallingford. CT. Project Manager

1978 – 1980: Yale University School of Medicine Internal Medicine Department

New Haven. CT. Research Assistant

1980 – 1981: University of Connecticut Pathology Department

Storrs. CT. Research Assistant

1981 – 1982: CETEC Medical School M. D.

Santo Domingo, Dominican Republic

1983 – 1984: State University of New York/Downstate Rotating Internship

Health Science Center at Brooklyn

1984 – 1987: State University of New York/Downstate Psychiatry Residency

Health Science Center at Brooklyn

1987 – 1989: St. Luke's University Hospital/Columbia University Child Psychiatry Fellowship

St. Luke's/Roosevelt Hospital Center and Columbia Presbyterian University Hospital

New York City. N. Y.

MEDICAL LICENSES

New York State	Issue: 4/27/89		#178079
Pennsylvania	Issue: 8/31/86		#037244
Hawaii	Issue: 2/1/2008	Exp: 1/31/2016	#14585
Georgia	Issue: 9/31/2009	Exp: 10/31/2013	#63259
Florida	Issue: 10/15/2009	Exp:1/31/2014	# ME105676

BOARD CERTIFICATION

Diplomate of American Board of Psychiatry and Neurology

Nov/1989

Certificate in Adult Psychiatry

Certificate #31921

Diplomate of American Board of Psychiatry and Neurology

Sept/1991

Certificate in Child and Adolescent Psychiatry

Certificate #2804

ECFMG Certification # 5655A September 9, 1982

MalPractice Carrier: American Professional Agency, Inc

Policy: 0001-4541

PUBLICATIONS

Kathleen Myers, MD, MPH, MS and Daniel Lieberman, MD. "Telemental Health: Responding to Mandates for Reform in Primary Healthcare." Mary Ann Liebert, Inc. Vol. 19 No. 6. June 2013. **Telemedicine and E-Health.**

Shaffer M.D., Ian A. and Lieberman M.D., Daniel. "Clinical Delivery and Medical Necessity." Managed Behavioral Health Handbook. Aspen Publications. 2001.

Managed Care: "Integrating the Delivery and Financing of Health Care." Part C. Section 3: Behavioral Health Programs. HIAA. 1998.

PRESENTATIONS

Annual Meeting of the American Academy of Child and Adolescent Psychiatry

Clinical Perspectives in Telepsychiatry: Technology, Licensure, Reimbursment and Regulatory Issues. (2010, 2011 & 2012)

Institute on Violence, Abuse & Trauma

10th Annual Hawaii Conference. Topic: Complex Trauma and Psychopharmacology. (2013)

11th Annual Hawaii Conference. Topic: Neurobiology of PTSD and Complex Developmental Trauma (2014)

AFFILIATIONS

American Academy of Child and Adolescent Psychiatry

American Telemedicine Association

Pacific Island Chapter of American Telepsychiatry Association

Tourette Syndrome Association

American Red Cross New York City Chapter - Disaster Response Team

American Society of Addiction Medicine: Managed Care Coalition on Substance Use Disorders

APA New York City District Branch Consultant to Task Force on Managed Care

APA New York City District Branch Consultant to Peer Review Committee

National Committee for Quality Assurance - Faculty for MBHO Training Conferences

New York Council on Child and Adolescent Psychiatry

New York State Committee on Youth and Violence – Consultant

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CURRICULUM VITAE

Name: **Mark David Noble**

Date of birth: 1st December 1949

Degrees:

B.A. (Biology and Philosophy), Franklin & Marshall College, USA 1967-1971

Ph.D. (Genetics), Stanford University, USA 1972-1977

Posts held:

1977-1981: Honorary Research Assistant, MRC Neuroimmunology Project, Department of Zoology, University College London

1981-1983: Research Assistant, Department of Clinical Neurology, Institute of Neurology, Queen Square, London

1984-1987: Senior Research Fellow and Honorary Lecturer, Department of Clinical Neurology, Queen Square, London

1987 – 1995: Head, Cellular Neurobiology, Ludwig Institute for Cancer Research, Courtauld Building, 91 Riding Street, London, W1P 8BT.

1992 – present: Professor of Cellular and Developmental Biology, Departments of Biochemistry & Molecular Biology and Anatomy & Developmental Biology, University College London.

1994-1995: Member, Ludwig Institute for Cancer Research,

1995 – 2000: Professor of Oncology; Chief, Division of Cell Biology; Head, Brain Tumor Program; Investigator; Huntsman Cancer Institute, Department of Oncological Sciences, University of Utah Health Sciences Center, Salt Lake City, Utah

1998-2000: Co-Director, W.M. Keck Center for Tissue Engineering, University of Utah

2000-present: Professor of Genetics, Center for Cancer Biology and Dept. of Genetics, Univ. of Rochester School of Medicine, New York

2001-present: Professor of Neurobiology and Anatomy, Dept. of Neurobiology and Anatomy, Univ. of Rochester School of Medicine, New York

2005-2010: Co-Director, New York State Center of Research Excellence for Spinal Injury Research (an 18 laboratory consortium integrating researchers from 10 campuses)

2007-present: Director, University of Rochester Stem Cell and Regenerative Medicine Institute

2008-present: Professor of Neurology, Univ. of Rochester School of Medicine, New York

2014-present: Martha M. Freeman M.D. Professorship in Biomedical Genetics

Awards:

1977-1978: National Science Foundation Postdoctoral fellowship

1978-1980: National Institutes of Health postdoctoral fellowship

1979: Woods Hole Neurobiology Course Fellow

1988: The Jean Monnet Prize of the European Neurological Society (with Damian Wren and Guus Wolswijk)

Editorial Boards (present and past appointments):

Developmental Neuroscience, Cell Death and Differentiation, Molecular Medicine Today, Experimental Neurology, Glia, Current Stem Cell Research & Therapy

Appointments:

1990-1995: Research Advisory Board of the National Neurofibromatosis Foundation

1998 - 2011: Brain Cancer Research Advisory Board of the James S. McDonnell Foundation

1999 – present: Research Advisory Board of Katie's Kids for the Cure

2001-2007: Member of NIH Study Section MDCN-6 (Neural Cell Fate); Chair 2006-2007

2001 – present: Scientific Advisory Board of Children's Neurobiological Solutions

2007: Ad hoc reviewer, for NIH Study Section CMBG (Cellular and Molecular Biology of Glia)

2008-2012: Member of NIH Study Section CMBG (Cellular and Molecular Biology of Glia)

2011-present: California Institute for Regenerative Medicine, Scientific and Medical Research Funding Working Group

Frequent ad hoc reviewer for NASA, DOD and the Medical Research Council (UK)

Corporate Interactions:

1987-1988: Consultant to Medirace, Inc. (now Medeva, Inc.)

1992-1993: Consultant to Somatix, Inc. (since acquired by Cell Genesys)

1993-1994: Consultant to Pfizer, Inc. (UK)

1995-1997: Scientific co-founder of StemCells, Inc. (since acquired by Cytotherapeutics, Inc.); no relationship since 1997

1995-present: Scientific co-founder and member of the Scientific Advisory Board of Acorda Therapeutics, Inc., a company focused on treatment and repair of neurological damage.

In addition to the above, I have been a frequent invited lecturer at biotechnology and pharmaceutical companies, including Genentech, Amgen, Pfizer, Eli Lilley, Wyeth-Ayerst, and Glaxo (prior to its merger to become Glaxo-Wellcome), among others.

Patents:

Jat, P.S., Kioussis, D. and Noble, M.D. (1997) "Transgenic mouse cells expressing TS SV40 large T antigen." US patent number 5,688,692

Noble, M. and Mayer-Pröschel, M. (1998) "Intracellular glutathione raising agents for therapeutic treatments." US patent number 5,766,873

Noble, M. and Mayer-Pröschel, M. (1998) "Antioxidants and intracellular glutathione raising agents for therapeutic treatments." US patent number 5,762,922

Jat, P.S., Kioussis, D. and Noble, M.D. (1999) "Transgenic mice expressing TS SV40 large T antigen." US patent number 5,866,759

Mayer-Pröschel, M, Rao, M. and Noble, M. (2001) "Lineage restricted glial precursor cells from the spinal cord" U.S. patent number 6,235,527

Rao, J.S., Noble, M., Mayer-Proschel, M. (2005) "Lineage restricted glial precursor cells from the central nervous system." U.S. patent 6,900,054

Rao, M.S., Noble, M. and Mayer-Proschel, M. (2007) "Methods using lineage restricted glial precursors from the central nervous system." U.S. patent number 7,214,372

Rao, J.S., Noble, M., Mayer-Proschel, M. (2010) "Lineage restricted glial precursor cells from the central nervous system." U.S. patent 7,795,021

Tresco, P.A., Biran, R. and Noble, M.D. "Bioartificial device for propagation of tissue, preparation and uses thereof." (pending)

Proschel, C., Mayer-Proschel, M., Noble, M., Davies, J. and Davies, S. "Transplantation of glial-restricted precursor-derived astrocytes for promotion of axon growth." (pending)

Elfar, J., Tseng, K.-C. and Noble, M. Composition and methods for the treatment of peripheral nerve injury (pending)

Folts, C. Scott, N and Noble, M. "Novel methods for treatment of lysosomal storage disorders" (pending)

Proschel, C., Natola, H., and Noble, M. Novel treatments of acute traumatic injury (in preparation)

Folts, C., Campbell, A. Caetano-Davies, L., Proschel, C. and Noble, M. Tissue culture supplements to enhance cell division and cell survival (in preparation)

Current and Recent Funding:

New York State Stem Cell Fund
07/01/2014 – 06/30/2017
Lysosomal storage disorder-induced precursor cell dysfunction in the CNS

Sparks for Children's Health
1/1/14 – 12/31/16
Treating cancer in ataxia telangiectasia without exacerbating central nervous system damage

Wilmot Cancer Center, University of Rochester Medical Center
1/1/2013 - 12/31/2013
Exploiting the deep architecture of cancer vulnerabilities to target basal-like breast cancer

New York State Stem Cell Fund
07/01/2011 – 06/30/2016
Stem cell training programs at the University of Rochester

James P. Wilmot Cancer Center and Roswell Park Cancer Inst. Collaborative pilot study (Noble)
10/01/11 – 9/30/12 (ext to 3/31/2013)
Immunotherapy for gliomas and the central importance of the tumor cell of origin

Friends of Nancy Lieberman Spinal Cord Research Fund
09/01/11 – 08/31/14
Astrocyte Transplantation Therapy Research

Roswell Park Cancer Institute and JP Wilmot Cancer Center Collaborative Pilot Study
5/14/2012 – 4/30/2013
Targeting C-MYC and N-MYC in Glioma and Neuroblastoma Cancer Stem Cells'

Legacy of Angels
9/01/2013-8/31/2014
Pharmacological therapies for Krabbe

Department of Surgery, University of Rochester (PI)
September 2012-August 2013
Restoration of c-Cbl function as a therapeutic approach in oesophogeal cancer

Wilmot Cancer Center (co-PI)
January 2013-December 2013
Targeting of basal-like breast cancer through mechanism-based repurposing of FDA-approved drugs

Crosby Fund (PI)
January 2013-December 2013
Development of new therapeutic approaches for treatment of neuroblastoma

Hunter's Hope Foundation (PI)
Unrestricted timing of use
Stem cell therapy for Krabbe's disease: The problem of chemotherapy-mediated damage to the CNS.

NIH/NCI RO1 CA131385 (PI)
07/01/08 – 06/30/13
CNS vulnerability to systemic chemotherapy: Causes and prevention

NIH/NINDS RO1 NS39511 (Co-I)
06/01/2007 – 03/31/2013 (NCE)
Stochastic modeling of multi-type cell systems

NIH/NCI R01 CA134839-01(Co-I)
09/23/2008 - 08/31/2013
Statistical Inference on Chemotherapy Effects from Flow Cytometry Data

2-11759 (Noble) (PI)
11/01/2009 –7/31/2014
The Catherine Carlson Stem Cell Fund

NYS DOH-Empire State Stem Cell Board N09G195 IIRP (PI)
09/01/2010 – 08/31/2013
Reversing chemo-resistance: Novel pathways and novel treatment targets

NYS DOH-Empire State Stem Cell Board C026877 (PI)
07/01/2011 – 06/30/2016
Stem cell training programs at the University of Rochester

Friends of Nancy Lieberman Spinal Cord Research Fund (PI)
09/01/11 – 08/31/14

Roswell Park Cancer Institute and JP Wilmot Cancer Center (Co-PI)
5/14/2012 – 5/13/2013
Targeting C-MYC and N-MYC in Glioma and Neuroblastoma Cancer Stem Cells'

NIH RO1 ES012708 (PI)
1/1/06 – 12/31/10 *NCE until 12/31/2011*
Low-level toxicant perturbation of neural cell function

NYS DOH/ Spinal Cord Injury Research Board C023691 (co-I)
10/01/2008 – 09/30/2012
Specific astrocyte subtypes for SCI repair without allodynia

AS073218 Noble (PI) DOD
09/15/2008 – 09/14/2012
Redox Abormalities as a Vulnerability Phenotype for Autism and Related Alterations in CNS Development.

NYS DOH-Empire State Stem Cell Board FAU#0809080957 (Co-I)
07/01/2010 – 06/30/2012
The Science and Ethics of Stem Cells: A Case Study-Based Course for Undergraduates

NYS DOH-Empire State Stem Cell Board CO24319 (Co-I)
01/01/2009 – 12/31/2011 *NCE until 6/30/12*
Nrf2 as a regulator of stem and progenitor cell function

W81XWH-07-1-0601 (Department of Defense) (Role: CoI)
01/01/2008-08/31/2012
Early Diagnosis, Treatment and Care of Cancer Patients

Autism Speaks (PI)
10/01/2008 – 09/30/2011 *NCE until 3/30/12*
Vulnerability phenotypes and susceptibility to environmental toxicants: from organism to mechanism

New York State Spinal Cord Injury Research Program CO19772 3771N (co-PI)
5/1/04 - 4/30/09 *nce until 4/30/10*
New York State Center of Excellence for Spinal Cord Injury

The Susan G. Komen Breast Cancer Foundation BCTR0707697 (PI)
10/01/2007 – 10/22/2009 (*nce until 10/22/10)*
Adverse neurological consequences of breast cancer treatments: Causes and prevention

NIH/NICHD R21 HD055550-01-A1 (co-I)
04/01/2008 – 03/31/2010
Glial dysfunction in Ataxia Telangiectasia
This proposal is focused on the characterization of a novel cellular target we have identified that is affected in the genetic disease Ataxia telangiectasia (AT).

Cure Autism Now Foundation (now merged with Autism Speaks) (PI)
2/5/07 – 2/4/09
Cellular, physiological and molecular mechanisms underlying alterations in CNS development caused by exposure to clinically relevant levels of mercury containing compounds

NIH/NINDS R21 AG030711-01A1 (PI)
7/1/08 – 6/30/10
White Matter Damage in Alzheimer's disease: New cellular targets and mechanisms

NYS Dept. of Health Planning Grant (PI)
11/01/08 – 10/31/09
Clinical Translation in Stem Cell Medicine: From Principles to Practice

Alzheimer's Association NIRG-07-58687 (co-I)
10/01/07 – 9/31/09
Amyloid beta elicits its neurotoxicity by activating Fyn/c Cbl pathway

Publications

Noble, M.D., Brown, T.H. and Peacock, J.H. (1978) Regulation of acetylcholine receptor levels by a cholinergic agonist in mouse muscle cell cultures. *Proc. Nat. Acad, Sci (USA)* **75**, 3488-3492.

Kessler, S. and Noble, M.D. (1978) Behaviour genetics. In: *Principles of Psychopharmacology*, 2nd edition (W.G. Clark and J. del Guidice, eds.) New York: Academic Press.

Noble, M.D., Brown, T.H. and Peacock, J.H. (1979) Direct effects of neostigmine on aneural myotybe cultures. *Neurosci. Lett,* **11**, 149-153.

Noble, M.D., Peacock, J.H., Lacher, J.A. and Hofmann, W.W. (1979) Prednisone-neostigmine interactions at cholinergic junctions. *Muscle Nerve* **2**, 155-157.

Bartlett, P.F., Noble, M.D., Pruss, R.M., Raff, M.C., Rattray, S. and Williams, C.A. (1980) Rat neural antigen-2 (Ran-2): a cell surface antigen on astrocytes, ependymal cells, Muller cells and leptomeningeal cells. *Brain Res.* **204**, 339-351.

Ranscht, B., Clapshaw, P.A., Price, J., Noble, M.D. and Seifert, W. (1982) Development of oligodendrocytes and schwann cells studied with a monoclonal antibody against galacto-cerebroside. *Proc. Nat. Acad. Sci. (USA)* **79**, 2709-2713.

Raff, M.C., Abney, E.R., Cohen, J., Lindsay, R. and Noble, M. (1983) Two types of astrocytes in cultures of developing rat white matter: differences in morphology, surface properties and growth characteristics. *J. Neurosci.* **3**, 1289-1300.

Raff, M.C., Miller, R.H. and Noble, M. (1983) A glial progenitor cell that develops *in vitro* into an astrocyte or an oligodendrocyte depending on the culture medium. *Nature* **303**, 390-396.

Raff, M.C., Miller, R.H. and Noble, M. (1983) Glial cell lineages in the rat optic nerve. *Cold Spring Harbor Symp. Quant. Biol.* **48**, 569-572.

Rougon, G., Noble, M. and Mudge, A.W. (1983) Neuropeptides modulate the ß-adrenergic response of purified astrocytes *in vitro*. *Nature* **305**, 715-717.

Noble, M., Mallaburn, P.S. and Klein, N. (1984) The growth of olfactory neurons in short-term cultures of rat olfactory epithelium. *Neurosci. Lett.* **45**, 193-198.

Noble, M., Fok-Seang, J. and Cohen, J. (1984) Glia are a unique substrate for the *in vitro* growth of CNS neurons. *J. Neurosci.* **4**, 1892-1903.

Noble, M. and Murray, K. (1984) Purified astrocytes promote the division of a bipotential glial progenitor cell. *EMBO Jl.* **3**, 2243-2247.

Noble, M., Albrechtsen, M. Mollder, C. Lyles, J., Bock, E, Goridis, C., Watanabe, M. and Rutishauser, U. (1985) Glial cells express NCAM/D2-CAM-like polypeptides *in vitro*. *Nature* **316**, 725-728.

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Tseng, K.-C., Li, H., L Zuscik, M., Noble*, M. and Elfar*, J. 4-aminopyridine promotes functional recovery and remyelination in acute peripheral nerve injury (submitted) (* = co-corresponding authors)

Folts, C.J., Scott-Hewitt, N., Pröschel, C., Mayer-Pröschel, M. and Noble, M. Lysosomal re-acidification prevents lysosphingolipid-induced lysosomal impairment and cellular toxicity (submitted)

Stripay, J., Stevens, B.M., Bardin, A.L. and Noble, M. Treatment of glioblastoma by

pharmacological restoration of c-Cbl function with an antidepressant (in preparation)

OMB No. 0925-0001/0002 (Rev. 08/12 Approved Through 8/31/2015)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: **Michael Snyder**

eRA COMMONS USER NAME (credential, e.g., agency login): **mpsnyder**

POSITION TITLE: **Stanford B. Ascherman Professor and Chair of Genetics and Director of Center for Genomics and Personalized Medicine**

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE	Completion Date	FIELD OF STUDY
University of Rochester, Rochester, NY	B.A.	05/77	Chemistry/Biology
California Institute of Technology	Ph.D.	09/82	Biology
Stanford University, Palo Alto, CA	Postdoc	01/86	Molecular Genetics

A. Personal Statement

I have run an independent lab for 29 years and trained approximately 160 postdoctoral fellows and 70 graduate students. Nearly all (>95%) have gone onto successful research careers in academia or industry. The remainder has used their experience successfully in related fields (law, medicine or pharma). I have been involved in running a variety of diversity training programs for the past 15 years (K-12, Undergrad, Grad, HS Teachers). We have invented many genomics technologies that are widely used in the field as described below. I have been chair and helped build two highly successful departments (Yale Univ., Dept. of Molecular Cellular and Developmental Biology) and (Stanford Univ., Dept. of Genetics). Finally, I have run several highly successful large programs over the years: an NHGRI Center of Excellence grant (CEGS; 10 years), a large ENCODE project (12 years); a Stem Cell P01 (4 years; ending soon); a CIRM Stem Cell Genomics Grant.

B. Positions and Honors

Research and Professional Experience

1978-1982	Graduate Student, California Institute of Technology, CA Advisor: Dr. Norman Davidson
1982-1986	Postdoctoral Fellow, Dept. Biochemistry, Stanford Univ, Advisor: Dr. Ronald Davis,
1986-2009	Assistant, Associate Full Professor, Department of (MCD) Biology, Yale University, CT
1998-2004	Chair, MCDB Yale University
2002-2009	Director, Yale Center for Genomics and Proteomics
2009-	Chairman of Genetics and Director of Center of Genomics and Personalized Medicine, Stanford University School of Medicine

Fellowships and Honors

1982-1985	Helen Hay Whitney Postdoctoral Fellowship
1987-1991	Pew Scholar Award
1989	Yale Junior Faculty Fellowship
2000	Burroughs Wellcome Scholar Award
2002	Named Lewis B. Cullman Professor
2007	CT Medal of Science
2009	Pioneer Award (HUPO)
2011	Named Stanford B.Ascherman Professor
2014	High Impact/Highly Cited Scientists
2015	Elected American Academy of Arts and Sciences

Recent Selected Keynote/Featured Speaker

Genetics Day, Univ. Rochester, (2009) Lorne Genomics Meeting, (2009) RECOMB2009, (2009) Stanford Clinical Genomics Retreat, (2009) Univ. of Toronto Genomic Symposium, (2009) Biomedical Engineering Conference, (2009) International Yeast Genetics and Molecular Biology Meeting, (2009) International Conference of Systems Biology, Buck Symposia on Aging (2009), Proteomics 2010, Human Genome Meeting (2010), 3rd Annual Joint Conference of Systems Biology (2010), Annual International Conference on Computational Systems Bioinformatics (2010), J Craig Venter Institute: Human Genomics: The next 10 years (2011); EMBL Distinguished Lecture (2011); ASMCUE (2012); Annual Stem Cell Symposium (2012); New Frontiers in Computing Symposium (2012), Assoc. Mol. Pathology (2012), Rustbelt RNA Meeting (2012), Institute for Biomedical Informatics Genomics and Computational Biology (2013), The 9th Molecular Biology of Hearing and Deafness Conference (2013), Clinical Epigenome Conference (2013). Walbash College (2013) Penn State Graduate Symposium (2014). Mass Spectrometry Meeting San Francisco (2014). Lorne (2015). VIB Leadership Meeting (2015), Fluidym User Meeting (2015).

Selected Recent Advisory Committees

2000, 02, 04, 06	Yeast Genetics Meeting Program Committee, CoOrganizer (2004), Organizer (2006)
2001-2009	Member Institute of Genetics Advisory Board, CIHR Canada
2001-2009	Northeast Structural Genomics Consortium Scientific Advisory Committee
2001-2010	P.I. Yale Center of Excellence in Genome Sciences
2008-2012	Member, NIH MABS study section (Chair, 2010-2012)
2011-present	EMBL, Scientific Advisory Committee
Presently Editor:	Genes & Devel., Mol. Cell. Proteomics, PloS Genetics, Drug Discov., Mol. Systems Biol., Proteomics, Clinical Proteomics, Scientific American.

Commercial

I have founded or cofounded several Biotechnology companies: Excelexis, Protometrix (Purchased by Life Tech now Thermo), Affomix (Purchased by Illumina), Personalis. I have served on the Scientific advisory board for many companies. I currently serve on the boards of Personalis, Genapsys, AxioMx.

C. Contribution to Science

1. Invention of high throughput gene/protein characterization/Systems Biology: Scientists used to study genes one at a time: *e.g.*"one gene, one PhD". We established the first large-scale gene/protein characterization project (prior to DNA microarrays) that involved the characterization of thousands of genes and protein at once. This project launched the fields of functional genomics and systems biology. It also generated community reagents (transposon libraries) and datasets that were valuable resources for the entire scientific community. It led to the invention of protein microarrays by our laboratory and enabled the first large-scale characterization of proteins.

a. Burns N, Grimwade B, Ross-Macdonald PB, Choi EY, Finberg K, Roeder GS, **Snyder M**. Large-scale analysis of gene expression, protein localization and gene disruption in *Saccharomyces cerevisiae*. *Genes Devel.* 1994;8: 1087-105. PMID: 7926789
b. Ross-Macdonald P, Coelho PSR, Roemer T, Agarwal S, Kumar A, Jansen R, Cheung K-H, Sheehan A, Symoniatis D, Umansky L, Heitman M, Nelson FK, Iwasaki H, Hager K, Gerstein M, Miller P, Roeder GS, **Snyder M**. Large-scale analysis of the yeast genome by transposon tagging and gene disruption. *Nature*. 1999;402: 413-418 (Featured in News and Views) PMID: 10586881
c. Zhu H, Bilgin M, Bangham R, Hall D, Casamayor A, Bertone P, Lan N, Jansen R, Bidlingmaier S, Houfek T, Mitchell T, Miller P, Dean DA, Gerstein M, **Snyder M**. Global analysis of protein activities using proteome chips. *Science*. 2001;293: 2101-2105. (Featured in many journals, websites and newspapers.) PMID: 11474067
d. Zhu H, Klemic JF, Chang S, Bertone P, Klemic KG, Smith D, Gerstein M, Reed MA, **Snyder M**. Analysis of yeast protein kinases using protein chips. *Nat Genet.* 2000;26: 283-289. PMID: 11062466

2. Genome characterization technologies: We have developed many technologies for genome characterization. a) Together wit Patrick Brown we invented ChIP-chip. We established this initially for yeast and then our group developed it for mammalian cells, when many leading figures in the field felt this would not be possible because of high background. During the course of this work we built the first tiling arrays for a human chromosome and the first high resolution whole genome tiling array. We later adapted this method with new high throughput sequencing technologies (ie ChIP-Seq). b) We also developed paired end sequencing using high-throughput sequence technologies enabling the large scale analysis of structural variation at high resolution for the first time. We demonstrated that most structural variation events were due to nonhomologous recombination, in contrast to what was previously thought. c) We were the first to sequence a genome using next generation technology, at a time when most leading laboratories thought the technology was too error-prone for this to be possible; we sequenced the genome of the pathogen, *Acinetobacter baumani*, with NGS.

a. Iyer VR,* Horak CE,* Scafe CS, Botstein D, **Snyder M**,* Brown PO*. Genomic binding distribution of the yeast cell-cycle transcription factors SBF and MBF. *Nature*. 2001;409: 533-538. Co-correp. Authors PMID: 11206552
b. Korbel JO,* Urban AE,* Affourtit J,* Godwin B, Grubert F, Simons JF, Kim PK, Palejev D, Carriero N, Du L, Taillon B, Tanzer A, Chi J, Yang F, Carter N, Hurles ME, Weissman S, Harkins T, Gerstein M, Egholm M, **Snyder M**. Paired-end mapping reveals extensive structural variation in the human genome. *Science*. 2007;318: 420-6. PMCID: PMC2674581
c. Smith MG, Gianoulis TA, Pukatzki S, Mekalanos J, Ornston LN, Gerstein M, **Snyder M**. New insights into *Acinetobacter baumannii* pathogenesis revealed by high-density pyrosequencing and transposon mutagenesis. *Genes Dev*. 2007;21: 601-14. PMCID: PMC1820901
d. **The ENCODE Project Consortium**. "An Integrated Encyclopedia of DNA Elements in the Human Genome." *Nature*. 2012. 489(7414): 57-74. PMC3439153

3. Regulatory Networks and Human Variation: We built many of the first large scale regulatory networks in eucaryotes for TF binding, phosphorylation. Importantly, our laboratory was the first to demonstrate that transcription factor binding varies extensively among closely related species and individuals, indicating that the major difference between closely related organisms and individual occurs at the level of gene regulation rather than protein coding genes. This was a large surprise at the time as most groups were sequencing different species to try to find regulatory regions using sequence conservation—an approach that has limited success, and in fact is usually wrong. We have extended the work to demonstrate that protein and translation efficiency varies extensively as well.

a. Horak CE, Luscombe NM, Qian J, Piccirrillo S, Gerstein M, **Snyder M**. Complex transcriptional circuitry at the G1/S transition in *Saccharomyces cerevisiae*. *Genes Dev*. 2002;16; 3017-33. PMCID: PMC187492
b. Kasowski M, Grubert F, Heffelfinger C, Hariharan M, Asabere A, Waszak SM, ... Gerstein MB, Korbel JO, **Snyder M**. Variation in transcription factor binding among humans. *Science*. 2010. 328(5975): 232-5. PMCID: PMC2938768
c. Kasowski M, Kyriazopoulou-Panagiotopoulou S, Grubert F, Zaugg JB, Kundaje A, Liu Y, Boyle AP, Zhang QC, Zakharia F, Spacek DV, Li J, Xie D, Olarerin-George A, Steinmetz LM, Hogenesch JB, Kellis M, Batzoglou S, **Snyder M**. Extensive variation in chromatin states across humans. *Science*. 2013; 342(6159):750-2. PMCID: PMC4075767
d. Gerstein MB, Kundaje A, Hariharan M, Landt SG, Yan KK, Cheng C, Mu XJ, Khurana E, Rozowsky J, ... Farnham PJ, Myers RM, Weissman SM, **Snyder M**. Architecture of the human regulatory network derived from ENCODE data. *Nature*. 2012. 489(7414): 91-100. PMCID: PMC4154057

4. Transcriptome technology and discovery of extensive noncoding RNAs: During our construction of tiling arrays for the mapping transcription factor binding sites we built the first high resolution human chromosome array (as did Tom Gingeras's group) and also the first whole genome array. We used these to demonstrate for the first time that there was twice as much transcribed regions that are stability expressed than was previously appreciated—revealing that there are many noncoding RNAs in the human genomes. We further went on to develop RNA-Sequencing for quantitative mapping of gene expression and expressed regions throughput the human genome, paired-end RNA-Sequencing and long RNA-Sequencing for comprehensive transcriptome analysis.

a. Rinn JR, Euskirchen G, Bertone P, Martone R, Luscombe NM, Hartman S, Harrison PM, Nelson FN, Miller P, Gerstein M, Weissman S, **Snyder M**. The transcriptional activity of human chromosome 22. *Genes Devel.* 2003;17: 529-40. PMCID: PMC195998
b. Bertone P, Stolc V, Royce TE, Rozowsky JS, Urban AE, Zhu X, Rinn JL, Tongprasit W, Samanta M, Weissman S, Gerstein M, **Snyder M**. Global identification of human transcribed sequences with genome tiling arrays. *Science*. 2004;306: 2242-6.
c. Nagalakshmi U, Wang Z, Waern K, Shou C, Raha D, Gerstein M, **Snyder M**. The Transcriptional Landscape of the Yeast Genome Defined by RNA Sequencing. *Science*. 2008 ;320(5881):1344-9. PMCID: PMC2951732
d. Tilgner H, Grubert F, Sharon D, **Snyder M.** Defining a personal, allele-specific, and single-molecule long-read transcriptome. *Proc Natl Acad Sci* U S A. 2014;111(27):9869-74. PMCID: PMC4103364

5. Personal omics profiling and systems medicine: Although many people talk about personalized medicine, prior to our effort little was happening except in the context of severe diseases. We established the first longitudinal detailed *omics* (genomics, proteomics, metabolomics, autoantibodyomics) profiling of a human for personalized medicine. This work showed that genomic sequencing can be used to predict disease risk and that, by subsequent monitoring of appropriate markers, the onset of the predicted disease can be readily detected.

a. Chen R, Mias GI, Li-Pook-Than J, Jiang L, Lam HY, Miriami E, Karczewski KJ, Hariharan M, Dewey FE, Cheng Y, Clark MJ, Im H,.. Blasco MA, Greenberg PL, Snyder P, Klein TE, Altman RB, Butte AJ, Ashley EA, Gerstein M, Nadeau KC, Tang H, **Snyder M**. Personal omics profiling reveals dynamic molecular and medical phenotypes. *Cell*. 2012.148(6): 1293-307. PMCID: PMC3341616

Full list of over 400 manuscripts (>350 refereed):
http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/40874138/?sort=date&direction=descending

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D. Research Support

Current Funding

RB4-06087 (PI: Brunet, Co-PI: Snyder) 05/01/13 – 04/30/16
California Institute for Regenerative Medicine
Title: *Energy metabolism and aging pathways in human stem cell reprogramming and differentiation*
Goal: To examine metabolism in iPSC cells. UZADL (SPO# 107516)

1K12HL12000101, NIH (PI: Rabinovitch) 09/01/13 – 05/31/16
Title: *Stanford Cancer Development Program in Omics of Lung Diseases*
Goal: This is a Career Development Program (CDP) in 'Omics' of lung diseases with a major focus on pulmonary arterial hypertension (PAH). This is an extension of the current K12 CDP on the "Genetics and Genomics of Lung Diseases" that focuses on PAH. PADIR (SPO#109815)

1U01 HL107393-03, NIH (PI: Rabinovich, Co-PI: Snyder) 07/05/11 – 06/30/16
Title: *iPSC Derived EC as Surrogates Using Pulmonary Hypertension as a Photo-type Disease*
Goal: The major goal of this project is to investigate the use of induced pluripotent stem cell (iPSC)-derived endothelial cells (ECs) as surrogates for native ECs to improve our understanding and to better treat a life-threatening vascular disorder, pulmonary hypertension. PACKI (SPO# 49937)

1U54 HG00699601, NIH (PI: Snyder) 07/01/12 – 06/30/16
Title: *Production Center for Mapping Regulatory Regions of the Human Genome*
Goal: The major goal of this project is to apply high-throughput, cost-efficient approaches to greatly extend the ENCODE and mod ENCODE resources toward as complete catalogs as is feasible. PACTD (SPO# 106232)

CA160036-03, NIH/NCI (PI:Chan) 08/01/13 – 07/31/16
John Hopkins University
Title: *Proteome Characterization Center: A Genoproteomics Pipeline for Cancer*

Goal: The major goal of this project is to establish an integrated proteome Characterization center (PCC) with an outstanding team of scientists and clinicians in order to construct a cancer biomarker pipeline using genoproteomic approaches. PCDCZ (SPO# 50894)

P01 GM09913002, NIH (PI: Snyder, Co-PI: Wysocka, Wu, Brunet) 09/15/11 – 08/31/16
Title: *Longitudinal Epigenomic Tracking of the Reprogramming Process*
Goal: The major goal of this project is to discover features associated with successful and abortive de-differentiation of iPSC's to form the basis by which reprogramming can be improved, both in efficiency and differentiation potential, by molecular manipulations. PACOO (SPO# 51576)

1U54DE02378901, NIH (PI: Snyder, Co-PI: McLaughlin, Butte) 09/09/13 – 08/31/16
Title: *Longitudinal Multiomics Microbial Profiling in Healthy & Disease Individuals*
Goal: Form a multiomics Center for the detailed longitudinal omics analysis of the microbiome, its activity and its interconnected relationship with the host during healthy and disease states. PADHP (SPO# 110818)

1U01HG00761101-01, NIH (PI: Snyder) 04/24/14 – 03/31/17
Title: *Genotype-Tissue-Protein: proteomic variation and quantitative trait lock (pQTL)*
Goal: Produce first large-scale multi-tissue characterization of normal proteomic variation in humans. Data generated in this project will provide a resource for understanding the genetic basis of complex traits. PADOM (SPO#111347)

NNX14AH52G, NASA (PI: Snyder) 04/16/14 – 04/15/17
Title: *HERO Twin Astronaut Study Consortium (TASC) Project: Longitudinal Integrated Multi-Omics Analysis of the Biomolecular Effects of Space Travel*
Goal: A longitudinal integrative analysis of omics data generated during space travel to reveal an unprecedented portrait of the molecular and physiological changes that accompany space travel. REAAA (SPO# 113101)

1R24HL11775601A1, NIH (PI: Wu) 04/15/14 – 03/31/19
Title: *Biorepository of Human iPSCs for Studying Dilated and Hypertrophic Cardiomyopathy*
Goal: To generate, characterize, sequence and distribute cardiac iPSC lines over 5 years to create a novel bio-repository valuable to broader scientific community. PADSA (SPO#110465)

GC1R-06673-A, CIRM (PI: Snyder) 06/01/14 – 05/31/19
Title: *Northern California Genomics Center for Excellence*
Goal: Multi-level genomics approaches to study stem cell derivation and differentiation in heart, tumors and the nervous system as well as develop novel computational tools. UZAER (SPO# 109931)

1P50HG007735-01 (PI: Chang) 09/01/14 – 06/30/15
Title: *Center for Personal Dynamic Regulomes*
Goal: Develop technologies that greatly increase the sensitivity, speed, and comprehensiveness of understanding genome regulation. PADVM (SPO#112285)

1R25HG007152-01A1, NIH (PI: Snyder) 09/22/14 – 08/30/17
Title: *Diversity Action Plan for Summer Research in Genetics*
Goal: This R25 application aims to enhance the successful training efforts of the SGTP by exposing and fostering summer research opportunities for diverse undergraduate populations.

1U01HG007919-01, NIH (PI: Snyder) 01/05/15 – 11/30/17
Title: *Genomics of Gene Regulation in Progenitor to Differentiated Keratinocytes*
Goal: To perform multiple next generation sequencing modalities on an epidermal differentiation system over a time course and construct a network model.

CURRICULUM VITAE: Michael Snyder

Citizenship United States

Present Address

Dept of Genetics
Stanford University
300 Pasteur Dr. M344
Stanford, CA 94305-5120
Office (650) 736-8099
Mobile (650) 796-6378
mpsnyder@stanford.edu

Education

1973-1977 B.A. University of Rochester, Rochester, New York
Chemistry and Biology

1978-1982 Ph.D. California Institute of Technology, Pasadena, California
Department of Biology, Degree conferred 6/83

Professional Experience

1977-1978 Research Assistant, Department of Biology, University of Rochester, Rochester, New York

1978-1982 Graduate Student with Dr. Norman Davidson, California Institute of Technology, Pasadena, California

1982-1986 Postdoctoral Fellow with Dr. Ronald W. Davis, Department of Biochemistry, Stanford University School of Medicine, Stanford, California

1986-1990 Assistant Professor, Department of Biology, Yale University, Connecticut

1990-1997 Associate Professor, Department of Biology, Yale University, Connecticut (tenured 1994)

1997-2009 Professor, Dept. of Biology (now Mol. Cell. Devel. Biol.), Yale Univ., CT

1991-2009 Member Yale Comprehensive Cancer Center

1992-2009 Associate Professor/Professor (Joint Appointment), Department of Molecular Biophysics and Biochemistry, Yale University

1998-2004 Chair, Dept. of Molecular, Cellular and Developmental Biology, Yale Univ. (Dept. doubled in size and 3X in funds during my tenure).

2002-2009 Director of Undergraduate Studies, Yale MCDB Dept.

2002-2009 Director, Yale Center for Genomics and Proteomics

2006-2009 Genetics Society of America Council Member (Elected)

2006- 2008 President, US HUPO (Elected)

2001-2009 PI, Yale Center of Excellence in the Genome Sciences (CEGS)

2004-present PI, NIH Training Grant in Genomics and Proteomics (first Yale, now Stanford)

2009-present Chair, Department of Genetics, Stanford University School of Medicine

2009-present Director, Center for Genomics and Personalized Medicine

2013-present CIRM Center for Stem Cell Genomics

Academic Honors/Fellowships

1978-1982	NIH Predoctoral Training Fellowship
1982-1985	Helen Hay Whitney Postdoctoral Fellowship
1986	United Scleroderma Foundation Award
1987-1991	Pew Scholar Award
1989	Yale Junior Faculty Fellowship
2000-2005	Burroughs Wellcome Scholar Award
2002	Genome Technology Finalist in Microarray Masters
2002-present	Appointed Lewis B. Cullman Professor of MCDB
2007	Connecticut Medal of Science
2009	Pioneer Award, HUPO
2011	Named Stanford B. Ascherman Professor
2014	High Impact/Most Cited Scientists

Advisory Committees

1989,90,	Member NIH Study Section- Ad hoc Reviewer
94-98, 2000-07	Member NIH Study Section- Ad hoc Reviewer
1993	Scientific Advisory Board Review Panel-American Cancer Society
1994-96	Howard Hughes Predoctoral Fellowship Review Committee
2002	Damon Runyan Walter Winchell Review Panel
1996-2002	March of Dimes Grant Review Panel
1997	ATCC Advisory Committee
1999	NSF Division Review Panel
2000, 2002	NIH Study Section Review Working Group
2000	Canadian Genome Center Review Panel
2001-present	Northeast Structural Genomics Consortium Scientific Advisory Committee
2001-present	Member, Institute of Genetics Advisory Council, CIHR Canada
2002-2007	Member, Ontario Genome Institute Scientific Advisory Board
2002-2006	Member, Chinese National Human Genome Institute Advisory Board
2007-present	SAB, Integrated Genomics Project Univ. of Toronto
2008-present	SAB, Duke Univ. Systems Biology Center
2003-2006	SAB, Blueprint Initiative
2003	NIH Special Road Map Advisory Committee
2003	External Reviewer, Dept. of Medical Genetics, Univ. of Toronto
2003-2010	Scientific Advisory Board, Gottenberg Univ. Genomics Meeting
2004-2007	Damon Runyan-Walter Winchell Review Panel
2007	NSF Plant Genomics Initiatives 5 Year Review
2008	External Review Committee, Gene Expression Unit, EMBL
2008	Proteomics Standards Initiative
2008	EDRN Review of Boston Group
2008	Review Committee for DOE Macromolecular Assemblies
2008	Proteomics Structure Committee Advisory Group
2008-2012	Member, MABS NIH Study Section
2006-2010	Genetic Society of America Members and Meetings Committee
2008-2011	Executive Committee of US HUPO
2008-present	Executive Council of HUPO
2009	Univ. of Pennsylvania, Genomics & Computational Graduate Program Review
2008-present	Uppsala Univ. Advisory Broad on Bertolli Center for Neurobiology
2009-present	Advisory Board Member, Yeast Proteomics Center, Univ. of Manchester

2012-present Chair, Scientific Adviosry Committee HPP
2013-present Executive Council Human Genome Meeting

Meeting Organizer

1994	CoOrganizer, Juan March Meeting on Signal Transduction & Morphogenesis
1996	Chair, FASEB Meeting: Yeast Chromosome Structure, Repl. & Segregation
2000	Yeast Genetics Meeting Program Committee
2004	CoOrganizer, ASBMB Genomics, Proteomics and Bioinformatics Meeting*
2004	CoOrganizer, GSA International Meeting on Yeast Molecular Genetics
2004	CoOrganizer, CSH Plant Genomes: From Sequence to Phenomes
2006	CoOrganizer, ASBMB Genomics, Proteomics and Bioinformatics Meeting
2006	Organizer, GSA International Meeting on Yeast Molecular Genetics*
2006	CoOrganizer, US HUPO
2007	CoOrganizer, CSH Plant Genomes: From Sequence to Phenomes
2007	CoOrganizer, Keystone Meeting on Functional Genomics
2008	CoOrganizer, Next is Now DNA Sequencing Symposium, Yale Univ.
2009	CoOrganizer, US HUPO
2010-13	CoOrganizer, Annual Stanford Symposium for Genomics and Personalized Medicine
2010	CoOrganizer, GSA, GENETICS 2010: Model Organisms to Human Biology
2012	CoOrganizer, The 13th International Conference on Systems Biology
2012	CoOrganizer, The 13th International Congress on Yeast
2012	Chair, 11th Annual HUPO World Congress
2014	Co Organizer, GSA International Meeting on Yeast Molecular Genetics

Editorial Boards

1996-2000	Editorial Board, The Dynamic Cell
2001-2004	Editorial Board, Chemistry and Biology
2000-2006	Editorial Board, FEMS Yeast Research
2007-2008	Editorial Board, Gene
2000-present	Editor-in-Chief (until 2002; now Editor) Functional and Integrative Genomics
2001-present	Editorial Board, Asscoiae Editor, Molecular and Cellular Proteomics
2002-present	Editorial Board, Drug Discovery Today
2004- present	Editorial Board, PloS Genetics
2005-present	Editorial Board, Genes and Development
2005-present	Editorial Board, Molecular Systems Biology
2011-present	Scientific American
2009-present	Molecular Cellular Proteomics
2011-present	Clinical Proteomics

Named/Distinguished Lectureships (starting 2004)

2004	California Institute of Technology, Norman Davidson Lecture
2004	University of Chicago, Fredick Seitz Lecture
2004	Tulane University, Gerber Lecture
2004	University of Iowa, Raymond Fung Lecture
2006	Northeastern University, Hoehn Lecture
2007	EBI Distinguished Lecturer

2008 Northwestern University Distinguished Lectureship
2008 Fred Sherman Lecture, Univ. of Rochester
2008 MGH Distinguished Lecturer
2009 Univ of Pennsylvania, Bernard Cohen Lecture
2011 EMBL Dintinguished Lecturer
2012 Honorable Guest Speaker of Metabolomics Conference from Omics Group
2012 Distinguished Green Lecture Series in Systems Biology at UT Dallas
2013 Honorary Lecture at the Genetica Retraite in Rolduc, Maastricht
2013 Valdosa College Connell Lectureship
2013 Walbash College Special Lectureship
2014 General Electric Lectureship McGill Univ.
2014 Greenberg Lectureship, Univ. of Michigan
2015 Burdette Lecture, Univ. Texas, Austin

Keynote/Featured Speaker

2000 University of Sherbrooke Graduate Symposium*
2001 CHI: Functional Genomics
2002 Yale University Pathology Retreat
2002 Georgia Bioinformatics Symposium
2003 University of Texas Medical Faculty Symposium
2003 Structural and Functional Genomics, Singapore
2004 International Meeting On Arabidopsis*
2004 Pennsylvania State Graduate Student Symposium
2005 Keystone Conference on Plant Signaling
2005 New York University: Genomics Symposium—Genomes in Action
2005 Chip to Hits
2005 Systems Biology Meeting
2006 AGCT Genomics Meeting
2006 Genomes to Biology Meeting, Manchester, UK
2006 Keystone Conference on Plant Abiotic Stress
2006 CHI Genes to Targets
2006 AUHUPO*
2007 ABRF*
2007 Pan American and Brazilian Biochemistry and Molecular Biology Meeting*
2007 Uppsala Neuroscience Center Launch
2007 IBC Diagnostics 2 Discovery
2007 DREAM 2 Conference
2008 CHI Mining the Plasma Proteome
2008 Student Invited Speaker, Vanderbilt Genetics Retreat
2008 Genetics Day, Univ. of Rochester
2009 Lorne Genomics Meeting
2009 RECOMB 2009
2009 Stanford Clinical Genomics Retreat
2009 Univ. of Toronto Genomic Symposium
2009 Biomedical Engineering Conference
2009 International Yeast Genetics and Molecular Biology Meeting
2009 International Conference of Systems Biology
2009 Buck Symposia on Aging: Systems Biology of Aging
2010 Proteomics 2010

2010 14th Human Genome Meeting
2010 3rd Annual Joint Conference of Systems Biology, Regulatory Genomics, and Reverse Engineering Challenges
2010 9th Annual International Conference on Computational Systems Bioinformatics
2010 Stanford Mass Spectrometry Users Meeting
2011 J Craig Venter Institute: Human Genomics: The next 10 years
2012 Annual Stem Cell Symposium, Institute for Stem Cell and Regenerative Medicine
2012 New Frontiers in Computing Symposium
2012 The 13th International Conference on Systems Biology
2012 2012 Rustbelt RNA Meeting
2013 Institute for Biomedical Informatics Genomics and Computational Biology 2013
2013 The 9th Molecular Biology of Hearing and Deafness Conference
2013 The Clinical Epigenome Conference
2013 Walbash College Special Lectureship
2014 Penn State Graduate symposium
2014 Mass Spectrometry Meeting San Franscisco, Keynote Speaker
2014 OBIC Symposium, Univ of Tubingen
2015 Lorne Genomics Meeting
2015 VIB Leadership Meeting
2015 David Murdock Lecture

Commercial Activity
Exelexis 1990-1991 - CoFounder
Genaissance 1999-2001 Scientific Advisory Board (SAB)
Mycota 1996-2000 SAB
Protometrix 2001-2004 (now subsidiary of Invitrogen) Founder and Chair of SAB
RxGen 2003-2010 SAB
Affomix 2006- 2010 (now subsidiary of Illumina) Founder and Chair of SAB
DNANexus 2010-2011 SAB
Genapsys 2011-present SAB
Personalis 2010 Cofounder and SAB
AxioMX 2012-present SAB

Publications

1. Wu L, **Snyder M**. Impact of allele-specific peptides in proteome quantification. Proteomics Clin Appl. 2015 Feb 11. doi: 10.1002/prca.201400126. PMID: 25676416

2. Li J, Shi M, Ma Z, Zhao S, Euskirchen G, Ziskin J, Urban A, Hallmayer J, **Snyder M**. Integrated systems analysis reveals a molecular network underlying autism spectrum disorders. Mol Syst Biol. 2014 Dec 30;10(12):774. doi: 10.15252/msb.20145487. PMID: 25549968.

3. Haraksingh RR, Jahanbani F, Rodriguez-Paris J, Gelernter J, Nadeau KC, Oghalai JS, Schrijver I, Snyder MP. Exome sequencing and genome-wide copy number variant mapping reveal novel associations with sensorineural hereditary hearing loss. BMC Genomics. 2014 Dec 20;15(1):1155. PMID: 25528277

4. Esplin ED, Oei L, Snyder MP. Pharmacogenomics. Personalized sequencing and the future

of medicine: discovery, diagnosis and defeat of disease. 2014 Nov;15(14):1771-1790. PMID: 25493570.

5. Esplin ED, Snyder MP. Genomic era diagnosis and management of hereditary and sporadic colon cancer. World J Clin Oncol. 2014 Dec 10;5(5):1036-47. doi: 10.5306/wjco.v5.i5.1036. Review. PMID: 25493239.

6. Lardenois A, Stuparevic I, Liu Y, Law MJ, Becker E, Smagulova F, Waern K, Guilleux MH, Horecka J, Chu A, Kervarrec C, Strich R, **Snyder M**, Davis RW, Steinmetz LM, Primig M. The conserved histone deacetylase Rpd3 and its DNA binding subunit Ume6 control dynamic transcript architecture during mitotic growth and meiotic development. Nucleic Acids Res. 2014 Dec 3. PMID: 25477386

7. Lin S, Lin Y, Nery JR, Urich MA, Breschi A, Davis CA, Dobin A, Zaleski C, Beer MA, Chapman WC, Gingeras TR, Ecker JR, Snyder MP. Comparison of the transcriptional landscapes between human and mouse tissues. Proc Natl Acad Sci U S A. 2014 Nov 20. pii: 201413624. PMID: 25413365.

8. Pope BD, Ryba T, Dileep V, Yue F, Wu W, Denas O, Vera DL, Wang Y, Hansen RS, Canfield TK, Thurman RE, Cheng Y, Gülsoy G, Dennis JH, Snyder MP, Topologically associating domains are stable units of replication-timing regulation. Stamatoyannopoulos JA, Taylor J, Hardison RC, Kahveci T, Ren B, Gilbert DM. Nature. 2014 Nov 20;515(7527):402-5. doi: 10.1038/nature13986. PMID: 25409831 [PubMed - in process]

9. Cheng Y, Ma Z, Kim BH, Wu W, Cayting P, Boyle AP, Sundaram V, Xing X, Dogan N, Li J, Euskirchen G, Lin S, Lin Y, Visel A, Kawli T, Yang X, Patacsil D, Keller CA, Giardine B; Mouse ENCODE Consortium, Kundaje A, Wang T, Pennacchio LA, Weng Z, Hardison RC, Snyder MP. Principles of regulatory information conservation between mouse and human. Nature. 2014 Nov 20;515(7527):371-5. doi: 10.1038/nature13985. PMID: 25409826

10. Yue F, Cheng Y, Breschi A, Vierstra J, Wu W, Ryba T, Sandstrom R, Ma Z, Davis C, Pope BD, Shen Y, Pervouchine DD, Djebali S, Thurman RE, Kaul R, Rynes E, Kirilusha A, Marinov GK, Williams BA, Trout D, Amrhein H, Fisher-Aylor K, Antoshechkin I, DeSalvo G, See LH, Fastuca M, Drenkow J, Zaleski C, Dobin A, Prieto P, Lagarde J, Bussotti G, Tanzer A, Denas O, Li K, Bender MA, Zhang M, Byron R, Groudine MT, McCleary D, Pham L, Ye Z, Kuan S, Edsall L, Wu YC, Rasmussen MD, Bansal MS, Kellis M, Keller CA, Morrissey CS, Mishra T, Jain D, Dogan N, Harris RS, Cayting P, Kawli T, Boyle AP, Euskirchen G, Kundaje A, Lin S, Lin Y, Jansen C, Malladi VS, Cline MS, Erickson DT, Kirkup VM, Learned K, Sloan CA, Rosenbloom KR, Lacerda de Sousa B, Beal K, Pignatelli M, Flicek P, Lian J, Kahveci T, Lee D, Kent WJ, Ramalho Santos M, Herrero J, Notredame C, Johnson A, Vong S, Lee K, Bates D, Neri F, Diegel M, Canfield T, Sabo PJ, Wilken MS, Reh TA, Giste E, Shafer A, Kutyavin T, Haugen E, Dunn D, Reynolds AP, Neph S, Humbert R, Hansen RS, De Bruijn M, Selleri L, Rudensky A, Josefowicz S, Samstein R, Eichler EE, Orkin SH, Levasseur D, Papayannopoulou T, Chang KH, Skoultchi A, Gosh S, Disteche C, Treuting P, Wang Y, Weiss MJ, Blobel GA, Cao X, Zhong S, Wang T, Good PJ, Lowdon RF, Adams LB, Zhou XQ, Pazin MJ, Feingold EA, Wold B, Taylor J, Mortazavi A, Weissman SM, Stamatoyannopoulos JA, Snyder MP, Guigo R, Gingeras TR, Gilbert DM, Hardison RC, Beer MA, Ren B; Mouse ENCODE Consortium. A comparative encyclopedia of DNA elements in the mouse genome. Nature. 2014 Nov 20;515(7527):355-

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11. Sundaram V, Cheng Y, Ma Z, Li D, Xing X, Edge P, Snyder MP, Wang T. Widespread contribution of transposable elements to the innovation of gene regulatory networks. Genome Res. 2014 Oct 15. pii: gr.168872.113. PMID: 25319995

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13. Heidari N, Phanstiel DH, He C, Grubert F, Jahanbani F, Kasowski M, Zhang MQ, Snyder MP. Genome-wide map of regulatory interactions in the human genome. Genome Res. 2014 Sep 16. pii: gr.176586.114. PMID: 25228660

14. Lefrançois P, Gallagher JE, Snyder M. Global Analysis of Transcription Factor-Binding Sites in Yeast Using ChIP-Seq. Methods Mol Biol. 2014;1205:231-55. doi: 10.1007/978-1-4939-1363-3 PMID: 25213249

15. Boyle AP, Araya CL, Brdlik C, Cayting P, Cheng C, Cheng Y, Gardner K, Hillier LW, Janette J, Jiang L, Kasper D, Kawli T, Kheradpour P, Kundaje A, Li JJ, Ma L, Niu W, Rehm EJ, Rozowsky J, Slattery M, Spokony R, Terrell R, Vafeados D, Wang D, Weisdepp P, Wu YC, Xie D, Yan KK, Feingold EA, Good PJ, Pazin MJ, Huang H, Bickel PJ, Brenner SE, Reinke V, Waterston RH, Gerstein M, White KP, Kellis M, Snyder M. Comparative analysis of regulatory information and circuits across distant species. Nature. 2014 Aug 28;512(7515):453-6. PMID: 25164757

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22. Sharon D, **Snyder M**. Serum profiling using protein microarrays to identify disease related antigens. Methods Mol Biol. 2014;1176:169-78. doi: 10.1007/978-1-4939-0992-6_14. PMID: 25030927

23. Tilgner H, Grubert F, Sharon D, Snyder MP. Defining a personal, allele-specific, and single-molecule long-read transcriptome. Proc Natl Acad Sci U S A. 2014 Jul 8;111(27):9869-74. doi: 10.1073/pnas.1400447111. Epub 2014 Jun 24. PMID: 24961374

24. Kukurba KR, Zhang R, Li X, Smith KS, Knowles DA, How Tan M, Piskol R, Lek M, **Snyder M**, Macarthur DG, Li JB, Montgomery SB. Allelic expression of deleterious protein-coding variants across human tissues. PLoS Genet. 2014 May 1;10(5):e1004304. PMID: 24786518

25. Kellis M, Wold B, Snyder MP, Bernstein BE, Kundaje A, Marinov GK, Ward LD, Birney E, Crawford GE, Dekker J, Dunham I, Elnitski LL, Farnham PJ, Feingold EA, Gerstein M, Giddings MC, Gilbert DM, Gingeras TR, Green ED, Guigo R, Hubbard T, Kent J, Lieb JD, Myers RM, Pazin MJ, Ren B, Stamatoyannopoulos JA, Weng Z, White KP, Hardison RC. Defining functional DNA elements in the human genome. Proc Natl Acad Sci U S A. 2014 Apr 29;111(17):6131-8. doi: 10.1073/pnas.1318948111. Epub 2014 Apr 21. Review. PMID: 24753594

26. Buenrostro JD, Araya CL, Chircus LM, Layton CJ, Chang HY, Snyder MP, Greenleaf WJ. Quantitative analysis of RNA-protein interactions on a massively parallel array reveals biophysical and evolutionary landscapes. Nat Biotechnol. 2014 Jun;32(6):562-8. doi: 10.1038/nbt.2880. Epub 2014 PMID: 24727714

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Invited Seminars and Talks (since June 1, 1986)

1986

Factors Important for Chromosome Maintenance in Yeast
DNAX, Palo Alto, CA — June 2, 1986

Molecular Analysis of Chromosome Segregation in Yeast
Johns Hopkins Univ., MD — July 15, 1986

Gene Isolation Using λgt11 Expression Libraries.
Molecular Cloning Course, Cold Spring Harbor, N.Y. — August 1, 1986

Molecular Analysis of Chromosome Segregation in Yeast
International Yeast Meeting, Banff Canada — September 4, 1986

Molecular Analysis of Chromosome Segregation in Yeast
Biology Dept. Faculty, Yale Univ. — October 14, 1986

Molecular Analysis of Chromosome Segregation in Yeast
New York Yeast Meeting, N.Y. (speaker) — October 20, 1986

Molecular Analysis of Chromosome Segregation in Yeast
Carnegie-Mellon University — October 22, 1986

1987

Molecular Analysis of Chromosome Segregation in Yeast
Univ. of Mass., Amherst, Dept. of Biochemistry — April 7, 1987

Molecular Analysis of Chromosome Segregation in Yeast
International Yeast Meeting, San Francisco, CA — June 17, 1987

Gene isolation using λgt11 Expression Libraries.
Molecular Cloning Course, Cold Spring Harbor, N.Y. — July 29, 1987

Molecular Analysis of Chromosome Segregation in Yeast
Duke Univeristy, Genetics Program, N.C. — October 20, 1987

Molecular Analysis of Chromosome Segregation in Yeast
Yale University, Human Genetics Dept. — October 27, 1987

1988

Molecular Analysis of Chromosome Segregation in Yeast
Univ. of Mass., Worchester — January 8, 1988

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Univ. of Penn., Molecular Biology Program, PA — February 23, 1988

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Hershey Medical Center, Dept. of Biochem., Penn. State Univ. — February 24, 1988

Molecular Analysis of Chromosome Segregation Components in Yeast and Humans
PEW Scholar's Meeting, Oakland, CA — March 8, 1988

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Cornell Medical Center, Dept. of Microbiol., N.Y — April 26, 1988

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Albert Einstein Medical Center, Dept. of Biochemistry — June 14, 1988

Gene Isolation with Autoantibody Probes

Molecular Diagnostics, Miles Laboratories July 21, 1988

SPA2: A Yeast Gene Involved in the Direction and Control of Cell Division
Helsinki, Finland, International Yeast Meeting August 9, 1988

Transcription Interferes with Elements Important for Chromosome Maintenance in Yeast
Helsinki, Finland, International Yeast Meeting August 10, 1988

1989

Molecular Characteristics of Autoimmune Disease
Molecular Diagnostics, Miles Laboratories January 12, 1989

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Harvard Univ., Dept. of Genetics, Mass General Hospital January 18, 1989

Autoantibodies as Probes for Mitotic Components in Yeast and Humans
California Institute of Technology, Division of Biology March 2, 1989

Transcription Interferes with Elements Important for Chromosome Maintenance in Yeast
Biotechnology Center, Havana Cuba June 6, 1989

Gene Isolation Using Antibody Probes
Oncology Center, Havana Cuba June 7, 1989

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Biotechnology Center, Havana Cuba June 9, 1989

Antibody Probes for Yeast Cellular Components
Atlanta, GA, International Yeast Meeting June 28, 1989

Autoantibodies as Probes for Chromosome Segregation Components in Yeast and Humans
Marine Biology Laboratories, Woods Hole MA July 20, 1989

Autoantibodies as Probes for Mitotic Components in Yeast and Humans
Airlie, VA ASCB Meeting:
Chromosome Structure and Segregation September 10, 1989

Autoantibodies as Probes for Mitotic Components in Yeast and Humans
Johns Hopkins Univ., Mol. Biology and Genetics Dept. September 14, 1989

1990

Autoantibodies as Probes for Mitotic Components in Yeast and Humans
Leningrad, USSR May 14, 1990

Glucose Induces cAMP-Independent Physiological Changes in Stationary Phase Cells of *Saccharomyces cerevisiae*.
Saxtons River, Vermont August 9, 1990

Autoantibodies as Probes for Cellular Components in Yeast and Humans
Yale Undergraduates September 8, 1990

Autoantibodies as Probes for Cellular Components in Yeast and Humans
Univ. of Rochester, N.Y. September 14, 1990

Autoantibodies as Probes for Cellular Components in Yeast

and Humans
Washington Univ., St. Louis — October 8, 1990

Autoantibodies as Probes for Cellular Components in Yeast and Humans
Rockefeller Univ. — October 16, 1990

1991

Autoantibodies as Probes for Cellular Components in Yeast and Humans
San Diego, CA — March 3, 1991

Components Important for Spindle Pole Body Function and Cell Morphogenesis in Yeast
University of California, Berkeley — March 12, 1991

Components Important for Spindle Pole Body Function and Cell Morphogenesis in Yeast
Wesleyan, CT — July 23, 1991

Cell Polarity and Morphogenesis in Yeast
New York University Medical School
Depts. of Biochemistry & Genetics — October 16, 1991

Cell Polarity and Morphogenesis in Yeast
New Jersey Medical School, NJ — November 12, 1991

1992

Cell Polarity in Yeast
Center d'Etudes de Saclay, Gif Sur Yvette, France — March 31, 1992

Cell Polarity and Morphogenesis in Yeast
Univ. of California, San Francisco — May 27, 1992

Cell Polarity and Morphogenesis in Yeast
Univ.of California, Davis — May 28, 1992

Large Scale Gene Expression and Protein Localization in Yeast
Snowmass, CO FASEB Meeting — July 6, 1992

Identification of Genes Important for Chromosome Segregation and Karyogamy in *Saccharomyces cerevisiae*
Snowmass, CO FASEB Meeting — July 9, 1992

Stimulation of Cell Growth by Carbon Source in *Saccharomyces cerevisiae*
Vienna, Austria International Yeast Meeting — August 17, 1992

Large Scale Gene Expression and Protein Localization in Yeast
Vienna, Austria International Yeast Meeting — August 19, 1992

Cell Polarity and Morphogenesis in Yeast
New York University, Biology Dept. — September 27, 1992

Cell Polarity and Morphogenesis in Yeast
Univ. of North Carolina, Biology Dept. — October 16, 1992

Cell Polarity and Morphogenesis in Yeast
Dept. of Cell Biology, Mount Sinai Medical Center, N.Y. — November 18, 1992

1993

Cell Polarity and Morphogenesis in Yeast
Dept. of Pharmacology, Stonybrook, N.Y. — January 26, 1993

Cell Polarity and Morphogenesis in Yeast
Dept. of Genetics, Columbia Univ., N.Y. — April 7, 1993

Large-Scale Characterization of Gene Expression and Protein Localization in Yeast

Brussels, Belgium June 21, 1993
Large-Scale Characterization of Gene Expression and Protein Localization in Yeast
Cold Spring Harbor, Yeast Cell Biol. Meeting August 19, 1993
Cell Polarity and Morphogenesis in Yeast
Dept. of Biology, Yale University November 10, 1993
Cell Polarity and Morphogenesis in Yeast
Dept. of Microbiology and Molecular Genetics,
University of Vermont, Burlington, VT November 17, 1993
Cell Polarity and Morphogenesis in Yeast
Dept. of Biology, Dartmouth University, N.H. November 19, 1993
Cell Polarity and Morphogenesis in Yeast
Department of Zoology and Genetics, Iowa State Univ. December 1, 1993
Nuclear Organization
Department of Zoology and Genetics, Iowa State Univ. December 1, 1993
Cell Polarity and Morphogenesis in Yeast
McGill University, Montreal, CA December 6, 1993

1994

A Yeast Microtubule Motor Complex: What Happens at the Other End?
Program in Molecular Medicine, Univ. Mass, Worchester, MA March 31, 1994
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Biochemistry and Cell Biology, Rice Univ. TX April 11, 1994
A Yeast Microtubule Motor: What Happens at the Other End?
Dept. of Biochemistry, Baylor Univ. TX April 12, 1994
Large-Scale Analysis of Gene Expression, Protein Localization and Gene Disruption in Yeast
Santa Cruz, CA July 25, 1994
A Yeast Microtubule Motor: What Happens at the Other End?
Seattle, WA August 18, 1994
Large-Scale Analysis of Gene Expression, Protein Localization and Gene Disruption in Yeast
Caxambu, Brazil September 4, 1994
Mitosis
Woods Hole, MA October 26, 1994
A Yeast Microtubule Motor: What Happens at the Other End?
Univ. of Chicago, IL November 9, 1994
Large-Scale Analysis of Gene Expression, Protein Localization and Gene Disruption in Yeast
Loyola University, IL November 11, 1994
Large-Scale Analysis of Gene Expression, Protein Localization and Gene Disruption in Yeast
University of Madrid, Spain November 25, 1994
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Madrid November 28, 1994
A Yeast Microtubule Motor: What Happens at the Other End?
Univ. of Salamanca, Spain December 1, 1994
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Biology, Queens College, NY December 12, 1994

1995

Large-Scale Functional Analysis of the Yeast Genome

Dept. of Chemistry, Boston University February 27, 1995
The Role of NuMA and Its Molecular Partners in Mitosis
Salve Regina June 12, 1995
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Program in Molecular Medicine, Univ. Mass, Worchester, MA August 31, 1995
Large-Scale Functional Analysis of the Yeast Genome
Schering-Plough, Kenilworth, N.J. September 15, 1995
NuMA and Its Molecular Partners in Mitosis
Matritech, Cambridge, MA September 22, 1995
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Public Health Institute, New York, N.Y. September 26, 1995
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. Microbiology and Biochemistry, Univ. of Cincinnati October 24, 1995

1996

Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. Anatomy & Structural Biology, Albert Einstein Col. of Medicine January 24, 1996
Large-Scale Functional Analysis of the Yeast Genome
Louvain-la-Neuve, Belgium March 30, 1996
Large-Scale Functional Analysis of the Yeast Genome
and Segregation, Snowmass, CO June 17, 1996
Large-Scale Functional Analysis of the Yeast Genome
and Segregation, Madison, WI August 10, 1996
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Cell & Structural Biology, Univ. of Illinois, Champaign September 25, 1996
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Biochemistry and Pharmocology, Rutgers U.,
New Brunswick, N.J. October 3, 1996
Large-Scale Functional Analysis of the Yeast Genome
Cadus Pharmaceuticals, N.Y. October 10, 1996
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Genetics, Univ. of Washington, Seattle WA November 7, 1996
Large-Scale Functional Analysis of the Yeast Genome
Fred Hutchison Cancer Research Center, Seattle, WA November 8, 1996
Large-Scale Functional Analysis of the Yeast Genome
Sante Fe, NM November 10, 1996
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Biochemistry, Thomas Jefferson Univ., Phila., PA December 3, 1996
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Biochemistry, Wesleyan Univ., Middleton, CT December 5, 1996
Large-Scale Functional Analysis of the Yeast Genome
Sequana Therapeutics, La Jolla, CA December 16, 1996

1997

Large-Scale Functional Analysis of the Yeast Genome
Fred Hutchison Cancer Research Center, Seattle, WA February 14, 1997
Large-Scale Functional Analysis of the Yeast Genome
Stellenbosch, South Africa April 2, 1997
Cell Cycle Regulator as a Target of the Yeast PKC-MAP kinase Pathway
Stellenbosch, South Africa April 2, 1997
Large-Scale Functional Analysis of the Yeast Genome

Dept. of Cell Biol., Mount Sinai School of Medicine June 18, 1997
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Dept. of Cell Biol., Mount Sinai School of Medicine June 18, 1997
Large-Scale Functional Analysis of the Yeast Genome
Salve Regina, R.I. June 26, 1997
Hard-Wired and Plastic Mechanisms of Polarized Growth in Yeast
Woods Hole Physiology Course June 28, 1997
Large-Scale Functional Analysis of the Yeast Genome
Kazusa DNA Research Institute, Kazusa, Japan July 28, 1997
Large-Scale Functional Analysis of the Yeast Genome
Tokyo, Japan July 31, 1997
Control of Cell Polarity in Yeast
University of Tokyo, Japan August 4, 1997
A Yeast Microtubule Motor: What Happens at the Other End?
Kyoto University, Kyoto, Japan August 5, 1997
Large-Scale Functional Analysis of the Yeast Genome
Kyushu University, Fukuoka, Japan August 6, 1997
MAE1 and *MPS1* Genetically Interact with the Yeast γ-Tubulin
Homolog, Tub4p
Santa Cruz, CA August 25, 1997
Control of Cell Polarity in Yeast through MAP Kinase Signalling and Other Mechanisms
Yale Univ., Biol Dept. September 17, 1997
Control of Cell Polarity in Yeast through MAP Kinase Signalling and Other Mechanisms
Vanderbilt Univ., Dept. of Biochemistry September 22, 1997
Large-Scale Functional Analysis of the Yeast Genome
Bristol-Myers-Squibb, Wallingford CT October 6, 1997
Control of Cell Polarity in Yeast through MAP Kinase Signalling
Yale Univ., Cell Biology Cancer Center Program October 15, 1997
Large-Scale Functional Analysis of the Yeast Genome
Millenium, Boston, MA October 20, 1997
Control of Cell Polarity in Yeast through MAP Kinase Signalling and Other Mechanisms
Baylor College, Dept. of Biochemistry October 22, 1997
Control of Cell Polarity in Yeast through MAP Kinase Signalling and Other Mechanisms
Univ. Texas, Galveston, Dept. of Biochemistry October 23, 1997
Control of Cell Polarity in Yeast through MAP Kinase Signalling and Other Mechanisms
National Research Council, Canada, Dept. of Biochemistry November 12, 1997
Large-Scale Functional Analysis of the Yeast Genome
Helwett Packard, Palo Alto, CA November 18, 1997
Large-Scale Functional Analysis of the Yeast Genome
Univ. New Mexico, Albuquerque, NM, Dept. of Biology November 20, 1997

1998

Large-Scale Functional Analysis of the Yeast Genome
Univ. Southern California, Institi. Mol. Genetics January 23, 1998
Control of Cell Polarity in Yeast through MAP Kinase Signalling and Other Mechanisms
California Instit. of Technology, Pasadena, CA, Biology Dept. January 26, 1998
Large-Scale Functional Analysis of the Yeast Genome
California Instit. of Technology, Pasadena, CA January 26, 1998
Large-Scale Functional Analysis of the Yeast Genome
Yale Univ., Dept. of Computer Sci. April 7, 1998

Large-Scale Functional Analysis of the Yeast Genome
US. Surgical Corporation, North Haven — April 8, 1998

Large-Scale Functional Analysis of the Yeast Genome
American Cyanimid — May 6, 1998

Large-Scale Functional Analysis of the Yeast Genome
Leeovnhorst, Netherlands — May 16, 1998

Signaling Pathways that Control Cell Morphogenesis in Yeast
ISREC, Lausanne, Switzerland — May 20, 1998

Large-Scale Functional Analysis of the Yeast Genome
Saxton River, Vermont — June 17, 1998

Large-Scale Functional Analysis of the Yeast Genome
New England Biolabs, Beverly, MA — July 16, 1998

Large-Scale Functional Analysis of the Yeast Genome
Plymouth, N.H. — July 19, 1998

Large-Scale Functional Analysis of the Yeast Genome
Gothenberg, Sweden — August 27, 1998

Large-Scale Functional Analysis of the Yeast Genome
Siena, Italy — September 1, 1998

Large-Scale Functional Analysis of the Yeast Genome
Cadus Pharmaceuticals — October 20, 1998

Large-Scale Functional Analysis of the Yeast Genome
Genetics Dept., Yale University — October 27, 1998

Large-Scale Functional Analysis of the Yeast Genome
Genetics Dept., University of Geneva, Switzerland — November 11, 1998

Large-Scale Functional Analysis of the Yeast Genome
Genetics Dept., University of Michigan — December 7, 1998

Large-Scale Functional Analysis of the Yeast Genome
Genetics Dept., Pharmacia-Upjohn — December 9, 1998

1999

Large-Scale Functional Analysis of the Yeast Genome
Genomics Insitute, University of Florida, Gainsville — January 15, 1999

Dispersion of Microarray Technology
National Science Foundation, Washington, D.C. — January 27, 1999

Two Signaling Pathways Controlling Cell Morphogenesis in Yeast
SUNY Brooklyn, Molecular Cell. Biol. Program — April 28, 1999

Large-Scale Functional Analysis of the Yeast Genome by Transposon Tagging
Stanford University, Dept. Biochemistry — May 5, 1999

Large-Scale Functional Analysis of the Yeast Genome by Transposon Tagging
Rimini, Italy — May 25, 1999

A Novel Morphogenic Checkpoint Coordinates Cytoskeletal Organization with Cell Cycle Progression
Rimini, Italy — May 27, 1999

Large-Scale Functional Analysis of the Yeast Genome by Transposon Tagging and Gene Disruption
Vancouver, Canada Speaker — June 25, 1999

Large-Scale Functional Analysis of the Yeast Genome by Transposon Tagging and Gene Disruption
Cold Spring Harbor, CSHL N.Y. — August 12, 1999

Large-Scale Functional Analysis of the Yeast Genome by Transposon Tagging and Gene Disruption
DesMoines, Iowa — November 5, 1999

Control of Cell Morphogenesis and Cell Division in Yeast
Dept. Cell Biology, Yale University — December 1, 1999

Control of Cell Morphogenesis and Cell Division in Yeast
Wadsworth Center, Albany New York — December 16, 1999

Large-Scale Functional Analysis of the Yeast Genome
Wadsworth Center, Albany New York — December 16, 1999

2000

A Novel Cell Cycle Checkpoint that Monitors the Organization of the Peripheral Cytoskeleton
Puerto Vallarta, Mexico — January 11, 2000

Reaping the Fruits of the Eucaryotic Genome: Large-Scale Functional Analysis of a Eucaryotic Genome (Keynote speaker)
University Sherbrooke, Sherbrooke, CA — January 18, 2000

Large-Scale Functional Analysis of the Yeast Genome by Transposon Tagging
Sante Fe, NM — February 1, 2000

Large-Scale Functional Analysis of the Yeast Genome
University of New South Wales, Sydney, Australia — February 9, 2000

Large-Scale Functional Analysis of the Yeast Genome
University of Adeliade, Adeliade, Australia — February 10, 2000

Large-Scale Functional Analysis of the Yeast Genome
Melbourne University, Melbourne, Australia — February 11, 2000

Large-Scale Functional Analysis of the Yeast Genome
Lorne, Australia — February 15, 2000

Large-Scale Functional Analysis of the Yeast Genome
Washington Univ., St. Louis, MO — March 9, 2000

Ten Rules for Graduate Students
Yale Univ. GSRS — May 5, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Dept. GCD Biol. Univ. Minnesota, St. Paul, MN — May 15, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Albert Einstein, N.Y, — May 17, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Univ. Toronto — June 1, 2000

Global Analysis of Gene Expression in Yeast — July 23, 2000
New London, CT

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Snowmass, CO — August 23, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Salamanca, Spain — Sept. 29, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Peking Univ., Beijing, China — October 17, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Univ. of Navarra, Spain — October 23, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome
Switzerland Instit. Of Tech. (ETH), Zurich, Switzerland — October 26, 2000

Large-Scale Functional Analysis of the Yeast Genome and Proteome

London, UK October 26, 2000
Large-Scale Functional Analysis of the Yeast Genome and Proteome
Institute Curie, Paris November 20, 2000
Large-Scale Functional Analysis of the Yeast Genome and Proteome
Gif-sure-Yvette November 21, 2000
Large-Scale Functional Analysis of the Yeast Genome and Proteome
N.I.H., Bethesda December 7, 2000
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Cold Spring Harbor December 8, 2000

2001

Large-Scale Functional Analysis of the Yeast Genome: A tale of Two Chips
Univ. Colorado health Sciences Center February 15, 2001
The Yeast Knockout and Transposon Collecitons: The One-Two Punch of the New Yeast Genetics
Univ. Colorado Health Sciences Center February 16, 2001
Large-Scale Functional Analysis of the Yeast Genome: A tale of Two Chips
Special Genomics/bioinformatics Series, Emory University February 19, 2001
Large-Scale Functional Analysis of the Yeast Genome: A tale of Two Chips
Univ. California, San Francisco May 15, 2001
Checkpoint Control of the Cytoskeleton in Yeast
Univ. Oregon, Health Sciences Center May 17, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Univ. Oregon, Health Sciences Center May 17, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Univ, Wisconsin, Madison, WI May 18, 2001
Global Analysis of Protein Activities in Yeast
Philadelphia, PA July 30, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Goteborg, Sweden August 23, 2001
Global Analysis of Protein Activities in Yeast
Prague, Czech August 30, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Univ. Penn, Philadelphia Sept. 17, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Univ. of Pittsburgh October 1, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Indianapolis, IN October 3, 2001
Global Analysis of Protein Activities in Yeast
Leesburg, VA October 8, 2001
Global Analysis of Protein Activities in Yeast
Cambridge, MA October 10 , 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Stowers Institute, Kansas City November 6, 2001
Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Univ. of Rochester, N.Y. November 7, 2001
Global Analysis of Protein Activities Using Protein Chips
DNAX, Palo Alto, CA November 26, 2001
Global Analysis of Protein Activities Using Protein Chips
Glaxo-Smith Kline, Durham, NC November 29, 2001

Large-Scale Functional Analysis of the Yeast Genome and Proteome: A Tale of Two Chips
Dept. of Genetics. Univ. of Washington December 12, 2001

2002

Global Analysis of Protein Activities Using Protein Chips
Ventura, CA January 15, 2002

Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Dept. Pharmacology, UCLA January 16, 2002

Global Analysis of the Yeast Genome and Proteome
Boston, MA February 16, 2002

Global Analysis of the Yeast Proteome
Taos, NM March 7, 2002

Global Analysis of the Yeast Genome and Proteome: A Tale of Two Chips
Skirball Institute, New York University, NYC March 13, 2002

Global Analysis of the Yeast Genome and Proteome: A Tale of Two Chips
Dept of Pathology, Yale Univ. MA March 22, 2002

Global Analysis of the Yeast Genome and Proteome: A Tale of Two Chips
Genomics Institute Novartis Foundation, San Diego, CA March 28, 2002

Global Analysis of the Yeast Genome and Proteome: A Tale of Two Chips
University of Alabama, Birmingham, AL April 4, 2002

Global Analysis of the Protein Activities Using Protein Chips
Galveston, TX April 6, 2002

Signaling Pathways Controlling Cell Morphogenesis in Yeast
Dept of Genetics, Columbia Univ. April 9, 2002

Global Analysis of the Protein Activities Using Protein Chips
Shanghai, China April 15, 2002

Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Zhejiang Univ., Hangzhhou, China. April 18, 2002

Proteomics
Bethesda, MD April 25, 2002

Large-Scale Functional Analysis of the Yeast Genome: A Tale of Two Chips
Genetics, Univ. of Utah April 29, 2002

Global Analysis of the Protein Activities Using Protein Chips
Edmonton, Canada May 11, 2002

Large-Scale Analysis of the Yeast Genome: A Tale of Two Chips
Dept. of Pharm., Johns Hopkins Univ. May 15, 2002

Global Analysis of the Protein Activities Using Protein Chips
Yale Univ. May 17, 2002

Global Analysis of the Yeast Genome: A Tale of Two Chips
Vanderbilt, Nashville, TN May 21, 2002

Global Analysis of the Yeast Genome and Proteome
Washington, D.C. June 6, 2002

Global Analysis of the Protein Activities Using Protein Chips
Snowmass, CO June 28, 2002

Global Analysis of the Yeast Genome: A Tale of Two Chips
Nice, France July 2, 2002

Advances in Genomics and Proteomics
Washington, D.C. July 11, 2002

Global Analysis of the Protein Activities Using Protein Chips
Bates College, Lewiston, ME July 21, 2002

Large-Scale Analysis of the Genomes and Proteomes: A Tale of Two Chips
Bates College, Lewiston, ME July 22, 2002
Global Analysis of the Protein Activities Using Protein Chips
New London, CT July 25, 2002
Large-Scale Analysis of the Genomes and Proteomes: A Tale of Two Chips
Andover, New Hampshire August 15, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Dartmouth Univ., New Hampshire October 2, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Atlanta, GA October 3, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Univ. of Georgia, Athens, GA October 4, 2002
Global Analysis of the Protein Activities Using Protein Chips
EMBL, Heidelberg, Germany October 14, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Max-Planck Institut. Mol. And Cell Biol., Germany October 16, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
CNRS, Saclay, France October 17, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Vienna, Virginia October 25, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Boston College, MA November 5, 2002
Global Analysis of the Protein Activities Using Protein Chips
Boston, MA November 11, 2002
Analysis of the Genomes and Proteomes
Wellesley College, MA November 18, 2002
Subcellular Localization of the Yeast Proteome
Boston, MA November 19, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Chinese Acad. Sciences, Beijing, China November 26, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Academe Sinicia November 28, 2002
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Singapore December 4, 2002
Global Analysis of the Protein Activities Using Protein Chips
Washington, D.C. December 9, 2002
Global Analysis of the Protein Activities Using Protein Chips
Bethesda, MD December 11, 2002

2003

Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Univ. California, Berkeley January 7, 2003
Global Analysis of the Protein Activities Using Protein Chips
Park City, UT January 9, 2003
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Salt Lake City, UT January 10, 2003
Global Analysis of the Genomes and Proteomes
Sante Fe, NM February 21, 2003
Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Houston, TX February 28, 2003

Global Analysis of the Protein Activities Using Protein Chips
San Antonio, TX — March 1, 2003

Global Analysis of Gene Expression in Yeast and Humans
Cold Spring Harbor — March 6, 2003

Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Univ. of North Carolina , Chapel Hill — March 10, 2003

Global Analysis of the Protein Activities Using Protein Chips
Keystone, CO — March 26, 2003

Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Univ. of British Columbia — March 31, 2003

Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Univ. of Maryland , MD — April 9, 2003

Global Analysis of the Genomes and Proteomes: A Tale of Two Chips
Johns Hopkins Univ. — April 10, 2003

Global Analysis of the Protein Activities Using Protein Chips
Bethesda, MD — March 11, 2003

Global Analysis of the Protein Activities Using Protein Chips
Stanford Univ., CA — April 17, 2003

Global Analysis of the Protein Activities Using Protein Chips
NIH, MD — April 25, 2003

Global Analysis of the Genomes and Proteomes
McGill Univ. — May 12, 2003

Global Analysis of the Genomes and Proteomes
Univ. of Toronto. — May 20, 2003

Global Analysis of the Genomes and Proteomes
Dana Farber/Harvard Univ. — May 27, 2003

Mapping Transcribed Regions and Regulatory Sites and Circuits in Yeast and Humans
Cold Spring Harbor Laboratory — May 31, 2003

Global Analysis of the Genomes and Proteomes
Swedish Royal Academy of Science, Stockholm — June 9, 2003

Global Analysis of the Genomes and Proteomes — June 11, 2003
Tilton Academy, New Hampshire

Global Analysis of the Protein Activities Using Protein Chips — June 16, 2003
Conn. College, New London, CT

Global Analysis of the Genomes and Proteomes — June 20, 2003
Univ. of Wisconsin, Madison

Global Analysis of the Protein Activities Using Protein Chips — July 9, 2003
Gotteborg, Sweden

Global Analysis of the Protein Activities Using Protein Chips — July 14, 2003
Oxford, UK

Global Analysis of the Transcription in Eucaryotes — August 1, 2003
Bar Harbor, ME

Global Analysis of the Genomes and Proteomes — October 8, 2003
Rutgers, NJ

Global Analysis of the Protein Activities Using Protein Chips — October 9, 2003
Montreal, Canada

Global Analysis of the Genomes and Proteomes — October 14, 2003
NRRC, Montreal Canada

Global Analysis of the Genomes and Proteomes — October 14, 2003

Univ. of Montreal, Montreal Canada
Global Analysis of the Genomes and Proteomes — October 17, 2003
Mass. Instit. Tech., Cambridge, MA
Human Genomic Array Technology — October 20, 2003
Seattle, WA
Global Analysis of the Protein Activities Using Protein Chips — November 3, 2003
Sanger Center, Cambridge UK
Global Analysis of the Genomes and Proteomes — November 8, 2003
Cold Spring Harbor, N.Y.
Global Analysis of the Genomes and Proteomes — November 12, 2003
Boyce Thompson Institute, Cornell Univ.
Global Analysis of the Genomes and Proteomes — November14, 2003
Dept. of Chemistry, Wesleyan
Global Analysis of the Genomes and Proteomes — November 18, 2003
Yale Cancer Center, Yale Univ.
Global Analysis of the Genomes and Proteomes — November 19, 2003
Carnegie Mellon Univ.
Genomics and Proteomics Activities at Yale — December 16, 2003
EPH, Yale Univ.
Global Analysis of Genomes and Proteomes — December 18, 2003
Univ. of Michigan, Ann Arbor
Analysis of the Human ENCODE Region — December 19, 2003
Bethesda, MD

2004

Global Analysis of Genomes and Proteomes
Breckenridge, UT — January 9, 2004
Global Analysis of Genomes and Proteomes
Mystic, CT Monsanto — February 25, 2004
Global Analysis of Genomes and Proteomes
Sloan Kettering, NY — February 27, 2004
Global Analysis of Genomes and Proteomes
Pennsylvania State Univ., PA. Keynote Speaker — March 5, 2004

Global Analysis of Biochemical Activities Using Protein Chips
York University, Toronto — March 6, 2004
Global Analysis of Genomes and Proteomes
Rockefeller Univ. — March 16, 2004
Global Analysis of Genomes and Proteomes
UCLA, CA — March 25, 2004
*Global Analysis of Genomes and Proteomes , Norman Davidson Lecture
California Instit. Of Technology, CA — March 29, 2004
Analysis of Regulatory Networks
Steamboat Springs, CO — April 1, 2004
*Global Analysis of Genomes and Proteomes , Raymond Fung Lecture
Univ. of Iowa, IA — April 2, 2004
Global Analysis of Genomes and Proteomes
Columbia Univ — April 12, 2004
Global Analysis of Genomes and Proteomes
Harvard Univ. (Genetics Dept), Boston — April 14, 2004

Analysis of Transcriptional Regulatory Networks.
Insitit. of Systems Biology, Seattle — April 25, 2004
*Global Analysis of Genomes and Proteomes , Gerber Memorial Lecture
Tulane Univ. New Orleans — April 28, 2004
Analysis of Transcriptional Regulatory Networks.
Crete, Greece — April 30, 2004
Analysis of Transcriptional Regulatory Networks.
Cold Spring Harbor Labs, NY — May 13, 2004
Analysis of Transcriptional Regulatory Networks.
HongZhou, China — May 27, 2004
*Global Analysis of Genomes and Proteomes , Fredick Seitz Lecture
Univ of Chicago, IL — June 2, 2004
Analyze This and That: Genomes and Proteomes
Johns Hopkins Univ. (Instit. Of Genetics), Baltimore — June 7, 2004
Global Analysis of Biochemical Activities Using Protein Chips
Boston, MA — June 13, 2004
Analysis of Transcriptional Regulatory Networks.
Boston, MA — June 14, 2004
Global Analysis of Biochemical Activities Using Protein Chips
Boston, MA — June 15, 2004
Global Analysis of Genomes and Proteomes
Mt. Sinai/Univ. of Toronto, Toronto — June 30, 2004
Analysis of Transcriptional Regulatory Networks.
Pine Mountain, GA — July 11, 2004
Global Analysis of Genomes and Proteomes
CSHL, NY — July 19, 2004
Overview of Yeast Omic Resources
Seattle, WA — July 30, 2004
Analysis of Phosphorylation Networks in Yeast
Andover, N.Y. — August 16, 2004
Global Analysis of Biochemical Activities Using Protein Chips
Oxford, UK — August 18, 2004
Global Analysis of Biochemical Activities Using Protein Chips
Univ. Washington, Seattle — August 30, 2004
Analyze This and That: Genomes and Proteomes
Univ. of Minnesota, Minn. — September 9, 2004
Global Analysis of Biochemical Activities Using Protein Chips
Key Biscayne, FL — October 8, 2004
Global Analysis of Biochemical Activities Using Protein Chips
EMBL, Germany — October 16, 2004
Human DNA Array Technology
Stanford, CA — October 21, 2004
Global Analysis of Biochemical Activities Using Protein Chips
CapitalBio, Beijing, China — October 24, 2004
Global Analysis of Biochemical Activities Using Protein Chips
Beijing, China — October 26, 2004
The Yale ENCODE Project
CSHL, NY — November 10, 2004
Probing the Functional Elements of the Human Genome

CSHL November 12, 2004
Analyze This and That: Genomes and Proteomes
Univ. of Wisconsin, Madison December 1, 2004
Analyze This and That: Genomes and Proteomes
NIH, Bethesda, MD December 3, 2004
Yeast Resources
CSHL, CSH December 11, 2004

2005

Standards for Protein Microarrays
NIH, Bethesda January 3, 2005
Analyze This and That: Genomes and Proteomes
University of South Florida, Tampa January 10, 2005
Analyze This and That: Genomes and Proteomes
Dept. Biochemistry UMDNJ, Newark, NJ January 18, 2005
**Analyze This and That: Genomes and Proteomes
Sante Fe, Az February 1, 2005
Analyze This and That: Genomes and Proteomes
Case Western Reserve Univ. February 10, 2005
High Throughput Analysis of Genomes
Washington, D.C. February 19, 2005
Global Analysis of Phosphorylation in Yeast
Washington, D.C. March 14, 2005
Analyze This and That: Genomes and Proteomes
Asilomar, CA March 16, 2005
Analyze This and That: Genomes and Proteomes
University of Maryland, MD March 28, 2005
Global Analysis of Phosphorylation in Yeast
Keystone, CO April 9, 2005
**Analyze This and That: Genomes and Proteomes
New York University April 25, 2005
Global Analysis of Protein Phosphorylation in Yeast
Colby Sawyer College, NH June 29, 2005
Global Analysis of Protein Activities Using ProteinMicroarrays
CSHL, NY July 12, 2005
Molecular Diagnostics of Protein Modifications and Proteins Using Protein Microarrays
Princeton, NJ, Speaker July 13, 2005
Summary of Transcription Regulation Analysis Group
Rockville, MD July 19, 2005
Global Analysis of Protein Phosphorylation in Yeast
San Francisco, CA July 24, 2005
Analyze This and That: Genomes and Proteomes
Ohio State University August 1, 2005
Analysis of DNA Microarrays
Ohio State University August 1, 2005
**Protein Microarrays for Probing Biochemical Activities and Human Health
Boston, MA September 12, 2005
Analyze This and That: Genomes and Proteomes
Montana StateUniversity, Bozeman September 20, 2005
Analyze This and That: Genomes and Proteomes

Skirball Institue, NYC, NY October 5, 2005
Protein Microarrays for Probing Biochemical Activities and Human Disease
Swedish Royal Institute of Technology, Stockholm October 10, 2005
Protein Microarrays for Probing Biochemical Activities and Human Disease
Univ. Chicago, IL October 17, 2005
Protein Microarrays for Probing Biochemical Activities and Human Disease
Boston, MA October 25, 2005
Human Genome Technologies
New Haven, CT November 3, 2005
Analyze This and That: Genomes and Proteomes
Brown University, Providence, RI November 14, 2005
** Probing Biochemical Activities, Regulatory Networks and Human Disease Using Protein Microarrays
Univ. of Ottawa, CA Keynote Speaker November 18, 2005
Technologies for Probing Functional Elements and Networks in the Human Genome
North Haven, CT November 30, 2005
Probing Biochemical Activities, Regulatory Networks and Human Disease Using Protein Microarrays, Institute of Genetic Lectureship
Univ. of Ottawa, CA Keynote Speaker December 1, 2005
Probing Biochemical Activities, Regulatory Networks and Human Disease Using Protein Microarrays, Institute of Genetic Lectureship
Univ. of California, Berkeley, CA December 5, 2005
Probing Biochemical Activities, Regulatory Networks and Human Disease Using Protein Microarrays, Institute of Genetic Lectureship
Univ. of Nebraska, Lincoln December 6, 2005
Probing Biochemical Activities, Regulatory Networks and Human Disease Using Protein Microarrays, Institute of Genetic Lectureship
Dana Farber, Boston, MA December 12, 2005
Analyze This and That: Genomes and Proteomes
IBM, Yorktown Hts December 15, 2005

2006

Transcriptional regulatory elements in the ENCODE regions
Bethesda, MD January 13, 2006
**Analyze This and That: Genomes and Proteomes
Marco Island February 9, 2006
Analyze This and That: Genomes and Proteomes
Mt Sinai, N.Y. February 21, 2006
Analyze This and That: Genomes and Proteomes
Yale University March 1, 2006
Eucaryotic Regulatory Networks
N.Y. Academy of Sciences March 10, 2006
**Analyze This and That: Genomes and Proteomes
Manchester, U.K. March 23, 2006
Eucaryotic Regulatory Networks
Palmero, Italy March 31, 2006
Eucaryotic Regulatory Networks
San Francisco April 3, 2006
**Analyze This and That: Genomes and Proteomes
Copper Mountain, CO April 8, 2006

Analyze This and That: Genomes and Proteomes
Penn State Univ. Hershey Campus April11, 2006
Analyze This and That: Genomes and Proteomes
Colorado State Univ. April17, 2006
**Probing Regulatory Networks and Human Disease
Boston, MA April 26, 2006
Finding Genes
Hudson High School, Hudson MA April 27, 2006
A Novel Signalling Pathway Required for Embryonic Stem Cell Self Renewal
Yale Faculty April 28, 2006
Transcriptional regulatory elements in the ENCODE regions
CSHL May 11, 2006
Mapping Transcribed Regions Throughout the Human Genome
CSHL June 1, 2006
Defined Culture Conditions for Human Embryonic Stem Cells
Geron Corp., Menlo Park June 8, 2006
Eucaryotic Regulatory Circuits
Stanford, CA June 8, 2006
Analyze This and That: Genomes and Proteomes
Roswell Institute, Buffalo N.Y. June14, 2006
Regulatory Circuits In Yeast
Palm Springs, CA June 28, 2006
Probing Biochemical Activities and Human Disease Using Protein Microarrays
CSHL July 5, 2006
Transcriptional regulatory elements in the ENCODE regions
Bethesda, MD July 5, 2006
Regulatory Circuits In Yeast
Princeton, N.J July 27, 2006
Analyze This and That: Genomes and Proteomes
CSHL August 9, 2006
Regulatory Circuits In Eucaryotes
Saxton River, VT August 16, 2006
Analyze This and That: Genomes and Proteomes
Univ. of Conn., Storrs August 30, 2006
**Probing Biochemical Activities and Human Disease Using Protein Microarrays
Seattle, WA September 8, 2006
Analyze This and That: Genomes and Proteomes
Univ. of Mass., Wochester September 20, 2006
Tiling Array Technologies for Analyzing the Human Genome
USC, Los Angeles, CA September 27, 2006
Global Analysis of Protein Phosphorylation in Yeast
Woods Hole, MA October 7, 2006
Regulatory Circuits In Eucaryotes
Rutgers, N.J. October 18, 2006
Analyze This and That: Genomes and Proteomes
Univ. of Cinncinati., Ohio October 25, 2006
Probing Biochemical Activities and Human Disease Using Protein Microarrays
Tampa, FL October 27, 2006
Probing Biochemical Activities and Human Disease Using Protein Microarrays

Long Beach, CA — October 30, 2006

Analyze This and That: Genomes and Proteomes
Georgia, Institute of Technology., Atlanta, GA — November 14, 2006

Analyze This and That: Genomes and Proteomes
Harvard Univ., MA — November 16, 2006

Analyze This and That: Genomes and Proteomes
Univ. of Montreal, CA — November 20, 2006

*Analyze This and That: Genomes and Proteomes
Northeastern Univ., MA Hoehn Lectureship — November 27, 2006

Analyzing Biochemical Activities and Human Disease Using Protein Microarrays
Singapore, CA — December 4, 2006

Analyze This and That: Genomes and Proteomes
GIS, Singapore — December 7, 2006

Analyze This and That: Genomes and Proteomes
British Columbia Cancer Research Institute — December11, 2006

2007

Identification of Candidate Marker of Ovarian Cancer Using Protein Microarrays
Barbados — January 8, 2007

Regulatory Circuits In Eucaryotes
Cancun, Mexico — January 14, 2007

Unraveling the Mysteries of the Human Genome
Yale Univ. (Company of Scholars) — February 13, 2007

Analyze This and That: Genomes and Proteomes
Columbia University — February 27, 2007

Analyze This and That: Genomes and Proteomes
Univ. of Conn., Farmington — March 1, 2007

Identification of Candidate Marker of Ovarian Cancer Using Protein Microarrays
Seattle, WA — March 7, 2007

Probing Biochemical Activities and Human Disease Using Protein Microarrays
CSHL — March 17, 2007

Analyze This and That: Genomes and Proteomes
Univ. of Texas., Southwestern — March 21, 2007

Regulatory Circuits In Eucaryotes
Steamboat Springs, CO — March 24, 2007

Probing Biochemical Activities and Human Disease Using Protein Microarrays
Tampa, FL — April 2, 2007

Microbes
Fairfield, CT — April 11, 2007

Analyze This and That: Genomes and Proteomes
Univ. of Michigan, Ann Arbor — April 16, 2007

Analyze This and That: Genomes and Proteomes
Ohio State Univ. — April 17, 2007

Analyze This and That: Genomes and Proteomes
Univ. of California, Irvine — April 18, 2007

Analyze This and That: Genomes and Proteomes
Fred Hutchison Cancer Research Institute — April 19, 2007

Analyzing Human Disease Using Protein Microarrays
NCI, Bethesda, MD — April 23, 2007

Probing Biochemical Activities and Human Disease Using Protein Microarrays

Washington, DC May 2, 2007
Embryonic Stem Cells
Yale Univ. (Yale Science Forum) May 4, 2007
Mapping Transcription Factor Binding Sites in C. elegans
CSH May 7, 2007
Standards in Mapping TF Binding Sites
CSH May 7, 2007
Mapping Variation in Humans Using New Sequencing Technologies
CSHL May 9, 2007
Probing Biochemical Activities and Human Disease Using Protein Microarrays
Stockholm, Sweden May 11, 2007
Probing Biochemical Activities and Human Disease Using Protein Microarrays
Salvador, Brazil May 23, 2007
Analyze This and That: Genomes and Proteomes
Univ. of Sao Paulo, Riberto, Preto May 28, 2007
Analyze This and That: Genomes and Proteomes
Stanford Univ. June 6, 2007
Analyzing Genomes and Regulatory Networks
CSHL June 19, 2007
Analyzing Proteomes
CSHL June 19, 2007
Identification of Candidate Marker of Ovarian Cancer Using Protein Microarrays
Washington, D.C. June 20, 2007
Identification of A Novel Signaling Pathway Essential for Embryonic Stem Cell Self Renewal
Wesleyan, Univ. June 26, 2007
Embryonic Stem Cells
Yale Univ. June 27, 2007
Identification of Candidate Marker of Ovarian Cancer Using Protein Microarrays
Bethesda, MD July 16, 2007
Analyzing Human Disease Using Protein Microarrays
San Diego, CA July 17, 2007
Unraveling the Mysteries of the Human Genome
Yale Univ. July 31, 2007
**Analyzing Human Variation and Disease Using Omics Technologies
Uppsala University, Sweden August 28, 2007
**Analyzing Human Variation and Disease Using Omics Technologies
Philadelphia, PA Diagnostics 2 Discovery September 17, 2007
Analyze This and That: Genomes and Proteomes
Univ. of Lousiville, KY September 25, 2007
Identification of Candidate Marker of Ovarian Cancer Using Protein Microarrays
Seoul, Korea October 7, 2007
Analyzing Human Variation and Disease Using Omics Technologies
Seoul, Korea October 8, 2007
Analyzing Variation Between Individuals and Between Species
Hinxton, UK October 12, 2007
Analyze This and That: Genomes and Proteomes
Rockefeller, Univ. NY October 19, 2007
Extensive Structural Variaiton in Humans Revealed Using Paired-End Mapping
NY, NY October 29, 2007

Analyzing Variation Between Individuals and Between Species
EBI, UK Distinguished Lecture Series — November 5, 2007
Analyzing Variation Between Individuals and Between Species
Univ. Of Florida, FL — November 7, 2007
Probing Biochemical Activities and Human Disease Using Protein Microarrays
CSHL — November 13, 2007
Analyzing Human Variation and Disease Using Omics Technologies
NIH, Bethesda, MD — November 14, 2007
Unraveling the Mysteries of the Human Genome
Amity, CT. — November 19, 2007
Production Center for Mapping Transcription Factor Binding Sites
Bethesda, MD. — November 28, 2007
Analyzing Variation and Regulatory Networks
NYC, NY — December 3, 2007
Its In Our Genes: The Differences Between People
New Haven Library, CT — December 3, 2007
Analyzing Variation Between Individuals and Between Species
Harvard Univ. Medical School, Boston — December 17, 2007
New Technologies for Analyzing the Human Genome
Bethesda, MD — December 18, 2007

2008

Analyzing Variation Between Individuals and Between Species
San Diego, CA — January 8, 2008
**Analyzing Human Disease Using Protein Chips
San Diego, CA — January 8, 2008
Analyzing Human Variation and Disease Using Omics Technologies
Northwestern University — January 10, 2008
Analyzing Regulatory Networks in Eucaryotes
Keystone, CO — February 7, 2008
Analyzing Biochemical Activities and Human Disease Using Protein Chips
Harvard School of Public Health — March 5, 2008
Analyzing the Human Genome Using New DNA Sequencing Technologies
NYAS, NYC — March 10, 2008
Analyzing Phosphorylation Networks Using Protein Chips
Bethesda, MD — March 18, 2008
Analyzing Biochemical Activities and Regulatory Networks Using Protein Chips
New Jersey — March 26, 2008
Analyzing Regulatory Networks in Eucaryotes
CSHL, NY — March 29, 2008
Analyzing Variation and Regulatory Networks Using Omics Technologies
Vanderbilt Human Genetics Retreat — April 9, 2008
Analyzing Phosphorylation Networks Using Protein Chips
Barcelona, Spain — April 15, 2008
Analyzing Variation and Regulatory Networks Using Omics Technologies
CRG, Barcelona, Spain — April 18, 2008
Analyzing Genomes and Proteomes Using Omics Technologies
Univ. of Rochester Fred Sherman Lecture — April 25, 2008
Analyzing Variation and Regulatory Networks Using Omics Technologies
Albert Einstein, School of Medicine — April 30, 2008

Analyzing Genomes and Regulatory Networks Using Omics Technologies
Univ. of Virginia, Charlottesville May 5, 2008
Analyzing Genomes and Regulatory Networks Using Omics Technologies
Univ. of California, Davis May 23, 2008
Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Laval Univ. May 28, 2008
The Transcriptional Landscape of the Yeast Genome using RNA Sequencing
Salve Regina Univ. June 4, 2008
Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Stanford Univ. Palo Alto June 9, 2008
Global Analysis of Transcription Factor Binding Sites in *C. elegans*
Bethesda, MD June 16, 2008
Global Analysis of Transcription Factor Binding Sites in Humans
Bethesda, MD June 18, 2008
Arabidopsis Protein Chips
Glouchester, MA June 20, 2008
Characterization of Eucaryotic Genomes Using DNA Sequencing Technologies
Helicos, Cambridge June 25, 2008
Characterization of Eucaryotic Genomes Using DNA Sequencing Technologies
Mendel, Oakland, CA June 26, 2008
Characterization of Eucaryotic Genomes Using DNA Sequencing Technologies
Cold Spring Harbor Laboratories July 10, 2008
Characterization of Eucaryotic Genomes and Regulatory Networks Using DNA Sequencing Technologies
Cold Spring Harbor Laboratories July 30, 2008
Finding Genes
Yale Univ. August 2, 2008
Analyzing Biochemical Activities and Human Disease Using Protein Chips
Amsterdam August 19, 2008
Analyzing Genomes and Regulatory Networks Using Omics Technologies
Gothenburg, Sweden August 25, 2008
Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Mass. General Hospital, Boston September 11, 2008
Analyzing Human Variation Using Next Generation DNA Sequencing Technologies
Yale University September 19, 2008
Analyzing Human Variation and Genomes Using Next Generation DNA Sequencing Technologies
Hyderabad, India September 29, 2008
Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Innsbruck, Austria October 4, 2008
Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
NIH, Bethesda, MD October 9, 2008
Analyzing Human Variation and Genomes Using Next Generation DNA Sequencing Technologies
CSHL October 11, 2008
Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Univ of Michigan, Ann Arbor, MI October 14, 2008
Integrated Technologies fro Characterizing the Human Genomes
Caltech, Pasadena CA October 16, 2008

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Heidelberg, Germany November 17, 2008

2009

Analyzing Phosphorylation Networks using Omics Technologies
Breckenridge, Colorado January, 29 2009

Analyzing Biochemical Activities and Human Disease Using Protein Microarrays
Lorne, Australia February 7, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Univ of Melborne, Australia February 9, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Australian Wine Institute, Australia February 10, 2009

Analyzing Human Disease Using and Variation Using Omics Technologies
Lorne, Australia February 13, 2009

Analyzing Human Variation and Regulatory Networks Using Omics Technologies
Lorne, Australia February 17, 2009

Analyzing Genomes Using High Throughput DNA Sequencing Technologies
UCLA, Los Angeles February 17, 2009

Global Analysis of Protein Phosphorylation Using Omics Technologies
San Diego, CA Speaker and Session Chair February 24, 2009

Analyzing Human Variation and Regulatory Networks Using Omics Technologies
Monterey, Mexico March 12, 2009

Facilitating British-US Interactions on Stem Cell Research
New Haven March 24, 2009

Identification of Expressed Genes and Regulators of Neural Differentiation Using Human Embryonic Stem Cells
New Haven March 25, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Wellesley, MA April 9, 2009

Analysis of Regulatory Networks in Eucaryotes
Barcelona, Spain April 21, 2009

High Throughput DNA Sequencing Technologies
Telethon Institute of Genetics April 22, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Telethon Institute of Genetics April 22, 2009

Analyzing Genome Variation in Eucaryotes
CSHL May 6, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Cardiovascular Research Institute, Morehouse College May19, 2009

Analyzing Genomes Using High Throughput DNA Sequencing Technologies
Tuscon, Az May 21, 2009

Sequencing Genomes
Stanford Univ., CA May 22, 2009

Analyzing Genomes Using High Throughput DNA Sequencing Technologies
LBL, Berkeley Ca May 26, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Univ. of Toronto, Canada May27, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies
Univ. of Iowa, Cedar Rapids June 4, 2009

Analyzing Genomes, Variation and Regulatory Networks Using Omics Technologies

Univ. of Pennsylvania, Philadelphia, PA June 8, 2009
Analyzing Eucaryotic Gene Regulation Using Omics Technologies
Stockholm, Sweden June 22, 2009
Analyzing the Yeast Genome and Regulatory Networks Using Omics Technologies
Manchester, UK July 20, 2009
The Proteome-Genome Interface
Toronto, Canada September 26, 2009
Horizons in Biotechnology
Wilmington, DE October 6, 2009
Analysis of Regulatory Pathways and Human Disease Using Omics Approaches
Philadelphia, PA October 7, 2009
Integrated technologies for characterizing the human genome
Huntsville, AL October 16, 2009
Can Genes Personalize Health and Disease?
Stanford Univ., CA October 20, 2009
Analyzing Genomes and Regulatory Information Using Omics Technoloiges
Univ. of Wisconsin, Madison, WI Novemeber 5, 2009
Analyzing Genome and Proteomes
Buck Institute, CA November 11, 2009
Variation and transcription factor binding in humans
CSHL Novemeber 15, 2009
Global Analysis of Regulatory Information and its Variation Within and Among Species
Stanford Univ., CA Novemeber 30, 2009

2010

Paired Ends for Structural Variation and Genome Assembly
Marco Island, FL February 24, 2010
Extensive Metabolite-Protein Interactions Revealed by Large-Scale Systematic Analyses
Denver, CO March 8, 2010
Personal and Nonpersonal Genomes: their analysis and variation
Univ. of Miami, FL March 24, 2010
Analysis of eukaryotic regulatory networks
CSHL March 26, 2010
Probing Protein Regulation in Human Disease Using Proteomics Technologies
Boston, MA April 26, 2010
Analysis of Genomes Using Omics Technologies
Case Western Univ., Cleveland, OH April 28, 2010
Analysis of Genomes, Proteomes & Regulatory Networks
Univ. of North Carolina, Chapel Hill, NC April 30, 2010
Analyzing Personal and Nonpersonal Genomes
Dartmouth Univ., Hanover, NH May 10, 2010
Transcription Binding Variation in Eucaryotes
CSHL May 12, 2010
Personal and Nonpersonal Genomes: their analysis and variation
Milan, Italy May 17, 2010
Personal and Nonpersonnel Genomes: their analysis and variation
Vienna, Austria May 18, 2010
Transcription Binding Variation in Eucaryotes
Montpellier, France May 19, 2010
Transcription Binding Variation in Eucaryotes

Stockholm, Sweden — May 20, 2010

Human Variation and Biomarkers
Boston, MA — June 2, 2010

Analyzing Genomes Using High Throughput Sequencing
Univ. Southern California, Los Angeles, CA — June 18, 2010

Yeast Genetics and Molecular Biology Meeting
University of British Columbia, Van Couver, Canada — July 27-Aug 1, 2010

The 9th Annual Computational Systems Bioinformatics Conference at Stanford
Palo Alto, CA — August 17-18, 2010

Stanford Mass Spectrometry Users Meeting
Palo Alto, CA — September 2, 2010

Cancer Center Friday Seminar Series at UCSF
San Francisco, CA — September 10, 2010

HUPO World Congress
Sydney, Australia — September 19-22, 2010

Biochemistry Seminar at UCSD
San Diego, CA — October 7, 2010

8th Annual Grantee Meeting at the Centers of Excellence in Genomic Science
Tempe, AZ — October 27-29, 2010

EMBO Conference Series – From Functional Genomics to Systems Biology
Heidelberg, Germany — November 13-16, 2010

RECOMB 2010: 3rd Annual Joint Conference of Systems Biology, Regulatory Genomics, and Reverse Engineering Challenges
New York, NY, speaker — November 16-20, 2010

Bay Area Mass Spectrometry Meeting
Foster City, CA — December 15, 2010

Human Immune Phenotyping Meeting
Bethesda, MD — December 16, 2010

2011

The Lawrence Berkeley National Laboratory Life Sciences Seminar
Berkeley Lab – Life Science Division — January 18, 2011

Personalized Medicine World Conference
Mountain View, CA — January 18-19, 2011

Biochemistry and Biophysics Seminar at UCSF
University of California/San Francisco, CA — January 25, 2011

Frontiers of Cardiovascular Science Seminar Series at the Stanford Cardiovascular Institute
Stanford, CA — February 8, 2011

Genome Sciences Seminar Series at the University of Washington
Seattle, Washington — February 16, 2011

Human Genome Conference: The Next 10 Years (*Keynote*) at the J Craig Venter Institute
La Jolla, CA — February 22-23, 2011

American Association for Cancer Research-NCI conference on Systems Biology
La Jolla, CA — February 27-28, 2011

Department of Human Genetics Seminar at the University of Chicago
Chicago, IL — March 9, 2011

Personal Omics Seminar at the Salk Institute
La Jolla, CA — March 10, 2011

US HUPO Conference at the Raleigh Conference Center

Raleigh, NC March 21, 2011
Department of Molecular Biology and Genetics Seminar at Cornell University
Ithaca, NY March 24, 2011
Department of Molecular Biology at Princeton University
Princeton, NJ March 31, 2011
NIDDK Drug Response Conference at the Bethesda North Marriott
Bethesda, MD April 21, 2011
CSHL Biology of Genomes Meeting at the Cold Springs Harbor Laboratory
Cold Springs Harbor, NY May 10-12, 2011
European Human Genetics Conference at the Novotel Amsterrdam City Hotel
Amsterdam, Netherlands May 28-31, 2011
Structural Biology and BioComputing Seminar at the Spanish National Cancer Research Center
Madrid, Span June 3, 2011
Summit on Systems Biology at the Virginia Commonwealth University
Richmond, VA June 15-17
Beyond Sequencing Conference at the Hotel Kabuki
San Francisco, CA June 21, 2011
Mechanisms of Eukaryotic Transcription Meeting at CSHL
Cold Springs Harbor, NY Aug. 30 - Sep. 3, 2011
HUPO 10th World Congress in Geneva
Geneva, Switzerland September 4-7, 2011
Early Detection Research Network Scientific Workshop
Bethesda, MD September 13-16, 2011
Stanford Genetics Department Retreat
Monterey, CA September 21-23, 2011
Human Genome Variation Society Annual Meeting
Montreal, Canada October 11, 2011
12th International Congress on Human Genetics/ASHG
Montreal, Canada October 12-15, 2011
Frontiers in Epigenomics and Disease Meeting
Baeza, Spain October 17-19, 2011
Distinguished Lecturer at the European Molecular Biology Laboratory Meeting
Heidelberg, Germany October 20, 2011
Fall Genetics Graduate Group Genomics and Epigenomics Seminar Series/ UC Davis
Davis, CA November 7, 2011
Human Immunology Project Consortium Semi-Annual Meeting
Palo Alto, CA November 10, 2011
Pioneers in Genomic Biology at the University of Illinois
Urbana, IL November 15, 2011
Society and Personal Genome Programme at the Sanger Institute
Hinxton, Cambridge, UK November 28, 2011
Wellcome Trust Functional Genomics and Systems Biology Conference
Hinxton, Cambridge, UK November 29, 2011
Systems Biology Center New York Symposium
New York, New York December 1, 2011
Protein Capture Reagents Meeting at the Hyatt regency
Bethesda, MD Dec 15-16, 2011

2012

Annual Stem Cell Symposium/ Institute for Stem Cell and Regenerative Medicine

Seattle, WA January 12, 2012
Honorable Guest Speaker of the Metabolomics Conference from Omics Group
San Francisco, CA February 20-21, 2012
Genomic Screening and Diagnosis of Human Diseases Conference
San Francisco, CA February 21-23, 2012
US HUPO Conference
San Francisco, CA March 4-7, 2012
Human Genome Meeting
Sydney, Australia March 11-14, 2012
LaTrobe University Seminar
Melbourne, Australia March 15, 2012
Monash Institue for Medical Research Seminar
Melbourne, Australia March 16, 2012
Knowledge Works Lecture at the University of South Australia/Australian Wine Research Inst.
Adelaide, Australia March 19, 2012
James Cooke University Research Seminar Series
Townsville, Australia March 23, 2012
6th Garvan Signaling Symposium at the Garvan Institute
Sydney, Australia March 26, 2012
12th Hunter Cell Biology Conference
Pokolbin, Australia March 27-30
American Society for Biochemistry and Molecular Biology Conference
San Diego, CA April 22, 2012
Distinguished Green Lecture Series in Systems Biology/UT Dallas
Dallas, Texas April 26, 2012
Keystone Symposium on Proteomics and Interactomes
Stockholm, Sweden May 7-11, 2012
GeoGenetics Lecure at the University of Copenhagen
Copenhagen, Denmark May 13, 2012
Genetics Lecture at the University of Uppsala
Uppsala, Sweden May 16, 2012
American Thoracic Society Symposium on Personalized Medicine
San Francisco, CA May 22, 2012
Samuel Lunefeld Research Institute International Symposium in Personalized Healthcare
Toronto, Canada May 31, 2012
18th Hemoglobin Switching Conference
Monterey Bay, CA June 9, 2012
American Society for Microbiology Conference for Undergraduate Educators
San Mateo, CA June 14, 2012
New Frontiers in Computing/ Stanford University (*Keynote*)
Palo Alto, CA June 16, 2012
Model Organisms to Human Biology Cancer Genetics Meeting
Washington DC June 17-18, 2012
Omics and Integration in Biology and Medicine Workshop
Washington DC June 19-20, 2012
Genomics of Model Organisms and Human Biology: Insights from the ModENCODE Project
Washington DC June 20-21, 2012
The 13th International Conference on Systems Biology (*Keynote*)
Toronto, Canada August 19-23, 2012

The 13th International Congress on Yeast
Madison, WI — August 26-30, 2012
CVI Annual Member Retreat (*Panel Discussion*)
Stanford, CA — September 13-14, 2012
The 6th Comprehensive Cancer Research Training Program
Stanford, CA — September 17-21, 2012
BSRI Scientific Retreat
San Francisco, CA — September 24, 2012
Genetics Lecture at Berkeley
Berkeley, CA — September 27, 2012
2012 Mayo Clinic Individualizing Medicine Conference
Rochester, MN — October 1, 2012
West Coast Metabolomics Center Opening Symposium
Davis, CA — October 8, 2012
Molecular and Medical Genetics Seminar at Oregon Health and Science University
Portland, OR — October 9-10, 2012
Signatures Seminar Series and Pacific Northwest National Laboratory
Richalnd, WA, speaker — October 11, 2012
Beckman Coulter 2012 Science & Technology Symposium
Brea, CA — October 16, 2012
Biochemistry Seminar Speaker at University of Colorado
Boulder, CO — October 17, 2012
Frontiers in Genomics Symposium, Institute for Genome Sciences, U of Maryland
Baltimore, MD, speaker — Ocotber 18, 2012
2012 Rustbelt RNA Meeting (*Keynote*)
Dayton, OH — October19-20, 2012
Association for Molecular Pathology 2010 Annual Meeting on Genomic Medicine
Bethesda, MD — October 25-27, 2012
Nature Institute for Genomic Medicine Annual Symposium
San Diego, CA, speaker — November 4, 2012
Illumina Discovery Symposium
San Francisco, CA, speaker — November 6, 2012
HiT Center Symposium on Human Systems Biology
Johns Hopkins University in MD, speaker — November 15, 2012
2012 CQS Seminar Series at Vanderbilt
Nashville, TN, speaker — November 16, 2012
University of Toronto's Department of Molecular Genetics Fall Coloquium.
Toronto, Canada, speaker — November 26, 2012
8th Annual Personalized Medicine Conference at Harvard University
Boston, MA, panel speaker — November 28, 2012
Massachusetts General Hospital Seminar
Boston, MA, speaker — November 29, 2012
Trends in 21st Century Epidemiology
Bethesda, MD, panel speaker — December 12-13, 2012

2013

Pacific Symposium on Biocomputing 2013
Big Island, Hawaii, speaker — January 3-7, 2013
Personalized Medicine World Conference 2013
Silicon Valley, CA, speaker — January 28-29, 2013

UofA, College of Medicine-Phoenix Basic Medical Sciences Seminar Series
Phoenix, AZ, speaker — February 13-14, 2013
2013 Cellular & Molecular Basis of Disease Seminar Series
Albuquerque, NM, speaker — February 15, 2013
UCSF/PSPG Graduate Program Seminar Series
San Francisco, CA, speaker — February 20, 2013
The Future of Genomic Medicine VI
La Jolla, CA, speaker — March 7-8, 2013
US HUPO – 9th Annual Conference
Baltimore, MD, speaker & session chair — March 10-13, 2013
Proteomic Forum 2013
Berlin, Germany, speaker — March 17, 2013
Genetica Retraite 2013
Rolduc, Maastricht, honorary lecture — March 21, 2013
Netherlands Cancer Institute Seminar
Amsterdam, speaker — March 22, 2013
Investors Tour of Life Sciences Companies – Dinner Seminar
Palo Alto, CA, speaker — March 26, 2013
Frontiers in Genomics in 2013 of the National University of Mexico
Mexico City, Mexico, speaker — April 1, 2013
Eminent Speaker Seminar Series
Birmingham, Alabama, speaker — April 3, 2013
Brown Foundation Institute of Molecular Medicine Seminar
Houston, TX, speaker — April 4, 2013
The Joint International Congress of Genetics and the Human Genome Organization Conference
Singapore, speaker — April 14-19, 2013
Tokyo Medical & Dental University Seminar
Tokyo, Japan, speaker — April 19, 2013
2013 Illumina Asia Pacific Scientific Summit
Puket, Thailand, speaker — April 21-23, 2013
3rd Annual World Pharmacogenomics Summit
San Francisco, CA, speaker — April 30, 2013
Genetics Semiar Series at Harvard Medical School
Boston, MA, speaker — May 1, 2013
Medical and Population Genetics Meeting at The Broad Institute
Cambridge, MA, speaker — May 2, 2013
Institute for Biomedical Informatics Genomics and Computational Biology 2013 Annual Retreat
Philadelphia, PA, Keynote speaker — May 6, 2013
Biology of Genomes 2013 Meeting
Cold Springs Harbor, NY, speaker — May 8, 2013
Illumina Moleculo Talk at Bilogy of Genomes
Cold Springs Harbor, NY, speaker — May 9, 2013
Big Data in BioMedicine Conference
Stanford, CA, speaker — May 22, 2013
European Human Genetics Conference (ESHG)
Paris, France, speaker — June 8-11, 2013
Keystone Symposium on Human Genomics and Personalized Medicine
Stockhom, Sweden, speaker — June 17-20, 2013
Nestlé Institute of Health Sciences Seminar

Lausanne, Switzerland, speaker June 21, 2013
The 9th Molecular Biology of Hearing and Deafness Conference
Stanford, CA, Keynote speaker June 22, 2013
The Clinical Epigenome Conference
San Francisco, CA, Keynote speaker June 26, 2013
JASON 2013 Summer Study
La Jolla, CA, speaker July 1, 2013
AP Biostudio for High School AP Teachers
Stanford, CA, speaker July 25, 2013
2nd Annual Genome in a Bottle Workshop
Gaithersburg, MD, speaker August 15, 2013
Annual Genetics and Genomics BioConference Live
Webinar, speaker August 21, 2013

Meetings and Conferences (since August 1, 1986) Note these often overlap with the talks/seminars listed above

Before 1995

New York Area Yeast Meetings-Attended several times each year until mid '90s.
Yale Yeast Meetings (1990-1992, 1994-present)-monthly
International Conference on Yeast Genetics and Molecular Biology
Banff, Canada Speaker August 31-Sept 5, 1986
International Conference on Yeast Genetics and Molecular Biology
San Francisco, CA Speaker June 16-21, 1987
Pew Scholar's Meeting
Oakland, CA Speaker March 7-10, 1988
International Conference on Yeast Genetics and Molecular Biology
Helsinki, Finland Speaker August 7-13, 1988
Pew Scholar's Meeting
Ixtapa, Mexico March 5-9, 1989
Cuban-North American Scientific Exchange Program
Havana, Cuba Speaker June 4-11, 1989
International Conference on Yeast Genetics and Molecular Biology
Atlanta, GA Speaker June 27-July 1, 1989
American Society of Cell Biology Meeting: Chromosome Structure and
Segregation Airlie House, VA Speaker September 8-12, 1989
Pew Scholar's Meeting, Organizing Committee Member, Session Chairperson
Coral Gables, FL March 4-8, 1990
Chromosome Transmission and Mitosis
Leningrad, USSR Speaker May 13-18, 1990
FASEB Summer Reseach Conference: Chromosome Structure, Replication and
Segregation in Yeast Saxtons River, VT Speaker August 5-10, 1990
Centennial Celebration for Biology Department, University of
Rochester, Rochester, N.Y. Speaker September 14, 1990
Pew Scholar's Meeting
San Diego, CA Speaker March 2-5, 1991
International Conference on Yeast Genetics and Molecular Biology
San Francisco, CA Session Chairperson May 23-28, 1991
American Society of Cell Biology

Boston, Mass — December 8-12, 1991

FASEB Meeting: Yeast Chromosome Structure, Replication and Segregation, Snowmass, CO Speaker — July 5-10. 1992

International Conference on Yeast Genetics and Molecular Biology
Vienna, Austria Speaker — August 15-19, 1992

Cell Morphogenesis in Yeast
Univ. of North Carolina Speaker — October 15-17, 1992

Functional Analysis of the Yeast Genome
Brussels, Belgium Speaker — June 19-21, 1993

Yeast Cell Biology
Cold Spring Harbor, N.Y. Speaker — August 17-22, 1993

FASEB Meeting: Yeast Chromosome Structure, Replication and Segregation, Santa Cruz, CA Speaker — July 23-28, 1994

International Conference on Yeast Genetics and Molecular Biology
Seattle, WA Speaker — August 16-21, 1994

Brazilian Society of Genetics
Caxambu, Brazil Speaker — September 2-5, 1994

RUNN Meeting
Woods Hole, MA Speaker — October 26, 1994

Juan March Meeting on Signal Transduction Pathways Essential for Yeast Morphogenesis and Cell Integrity, Organizer and Speaker
Madrid, Spain — November 28-30, 1994

1995-1999

Pew Scholars Meeting
Puerto Rico — March 15-20, 1995

Gordon Conference on Biological Structure and Gene Expression
Newport, RI, Speaker — June 11-16, 1995

American Society for Cell Biology
Washington D.C., Poster — December 9-13, 1995

EUROFAN Meeting on Functional Analysis of the Yeast Genome
Louvain-la-Neuve, Belgium, Speaker — March 28-31, 1996

From DNA to Brain
Caltech, Pasadena, CA — April 1-3, 1996

FASEB Meeting: Yeast Chromosome Structure, Replication and Segregation, Snowmass, CO Organizer and Speaker — June 15-20, 1996

International Conference on Yeast Genetics and Molecular Biology
Madison, WI Speaker — August 6-11, 1996

After the Genome 2
Sante Fe, NM Speaker — November 9-13, 1996

Yeast Gene Disruption Consortium
Stanford, CA — February, 1997

International Conference on Yeast Genetics and Molecular Biology
Univ. Stellenbosch, Speaker — March 31-April 5, 1997

Cold Spring Harbor Genome Meeting
Cold Spring Harbor Laboratories, Speaker — May 14-18, 1997

Stony Brook Symposium on the Genome and Future Biological Research
Cold Spring Harbor Laboratories, Speaker — May 18-19, 1997

Nucleic Acids Gordon Conference
Salve Regina, R.I., Speaker — June 22-26, 1997

Japan Yeast Genetics Meeting Tokyo, Japan, Speaker	July 30-August 1, 1997
Centrosomes and Spindle Pole Bodies Santa Cruz, CA, Speaker	August 23-27, 1997
Yeast Gene Disruption Consortium Stanford, CA, Speaker	November 17, 1997
USC Meeting on Genomics Los Angeles, CA, Speaker	January 23, 1998
Yeast Gene Disruption Consortium Stanford, CA, Speaker	April 26, 1998
EUROFAN Meeting Leeovnhorst, Netherlands, Speaker	May 16-19, 1998
FASEB Conference on Nucleic Acid Enzymes Saxton Rivers, Vermont, Speaker	June 13-18, 1998
Gordon Conference on Cellular and Molecular Mycology Saxton Rivers, Vermont, Speaker	July 19-24, 1998
International Conference on Yeast Genetics and Molecular Biology Univ. of Maryland, Session Chair	July 28th-Aug. 2, 1998
FASEB Meeting: Yeast Chromosome Structure, Replication and Segregation, Snowmass, CO	August 8-13, 1998
Functional Genomics Meetings Gothenberg, Sweden, Invited Speaker, Panel Discussion	August 26-28, 1998
Third International Meeting on Proteomics Siena, Italy, Invited Speaker	August 30-Sept. 3, 1998
Yeast Gene Disruption Consortium Basel, Switzerland	November 8-9, 1998
Dispersion of Research Technologies National Science Foundation, Washington D.C., speaker	January 27, 1999
]Yale Science Forum Organizing Committee	May 8, 1999
Yeast Gene Disruption Consortium Rimini, Italy Speaker	May 24, 1999
International Conference on Yeast Genetics and Molecular Biology Rimini, Italy Two talks	May 24-31, 1999
Yeast Genetics and Human Disease II Vancouver, Canada Speaker	June 24-27, 1999
Yeast Cell Biology Cold Spring Harbor, N.Y.	August 17-22, 1999
Pioneer-Hybrid Genome Symposium DesMoines, Iowa, Speaker	November 5, 1999
2000	
PEW Scholars Meeting Puerto Vallarta, Mexico, Speaker	January 8-13, 2000
Keystone Transposition Meeting Sante Fe, NM, Speaker	January 27-Feb. 2, 2000
Lorne Meeting on Genome Analysis Lorne, Australia, Speaker	February 13-16, 2000
Yeast Disruption Consortium Meeting Huntsville Alabama	March 8, 2000

Yale-Boehringer Ingelheim Meeting	March 24, 2000
Molecular Genetics Gordon Conf. New London, CT, Speaker	July 23-24, 2000
Yeast Genetics and Molecular Biology Seattle, Session chair	July 25-30, 2000
FASEB Meeting: Yeast Chromosome Structure, Replication and Segregation, Snowmass, CO Speaker	August 20-23, 2000
EUROFAN Meeting Salamanca, Spain, Speaker	Sept. 28-30, 2000
Advances in Molecular Medicine Navarra, Spain, Speaker	October 22-25, 2000
Fungal Pathogens London, United Kingdom, speaker	November 20, 2000
Arabidopsis Genome Meeting Cold Spring Harbor, Plenary Speaker	December 7-10, 2000
UCHSC Symposium on Proteomics Denver, CO Plenary Speaker plus workshop talk	February 15-16, 2001
Frontiers in Genomics Symposium Madison, WI	May 18, 2001
Canadian Society on Biochemistry and Molecular Biology Toronto, CA, Speaker	May 30-June 1, 2001
FASEB Protein Society Meeting Philadelphia, PA Speaker	July 28-August 1, 2001
Goteborg Conference on Functional Genomics Goteborg, Sweden	August 23-24, 2001
International Conference on Yeast Genetics and Molecular Biology Prague, Czech Workshop Chair & Speaker	August 26-30, 2001
Proteomics Symposium Eli Lilly, Indianapolis, IN Speaker	October 3, 2001
Defining the Proteomics Agenda Leesburg, VA Speaker	October 7-10, 2001
Functional Genomics Cambridge, MA Keynote Speaker	October 9-10, 2001
Human Genome Project Conference: The Challenges and Impact of Human Genome Research for Minority Communities Bethesda, MD	November 28, 2001
NHGRI Workshop on "The Future of Genomics" Airlie House, VA Session Chair	December 12-14, 2001
2002	
Gordon Research Conference "Sensory Transduction in Microorganisms" Ventura, CA, Speaker	January 13-17, 2002
AAAS Meeting "Protein Phosphorylation and Regulation" Boston, MA Speaker	February 17-18, 2002
Keystone Conference "Protein Phosphorylation and Regulation" Taos, NM, Speaker	March 5-8, 2002
Yale University, Dept. of Pathology Dept Retreat. MA Keynote Speaker	March 22-24, 2002
Functional Genomics Symposium Galveston, TX, Speaker	April 5-7, 2002

Human Genome Organization Shanghai, China, Speaker	April 14-17, 2002
N.I.H. Proteomics Planning Workshop Bethesda, MD	April 25-26, 2002
Canadian Proteomics Institute Edmonton, Canada, Speaker	May 11-12, 2002
Proteomics: Next Grand Challenge Vanderbilt Univ., Speaker & Session Chair	May 19-22, 2002
National Plant Genomics Initiative Workshop Washington, D.C. Speaker	June 6-7, 2002
FASEB Meeting: Yeast Chromosome Structure, Replication and Segregation, Snowmass, CO Speaker	June 29-July 1, 2002
European Life Science Organization, Nice, France, Speaker	July 1-3, 2002
Gordon Conference: Mechanisms of Toxicology Lewiston, ME Speaker	July 21, 2002
Gordon Conference: Molecular Genetics New London, CT Speaker	July 23-25, 2002
Yeast Genetics and Molecular Biology Madison, Workshop chair	July 30-August 4, 2002
Gordon Conference: Plant and Fungal Cytoskeleton New London, CT Speaker	August 13-15, 2002
Yale Biotechnology Symposium New Haven, CT, Panel Moderator	September 20, 2002
Dartmouth Life Science Symposium: Genomics and Proteomics Hanover, NH, Speaker	October 2, 2002
Georgia Symposium on Utilizing Bioinformatics Hanover, NH Keynote Speaker	October 3, 2002
The Future of Biology: Genomics and Proteomics EMBL, Heidelberg Speaker	October 13-16, 2002
Beyond Transcribed Sequences Vienna, Virginia, Speaker	October 25-26, 2002
ACS Prospectives Meeting on Proteomics Boston, MA, Speaker	November 10-13, 2002
NIH Workshop to Plan New Study Sections Functional Genomics, Boston, MA	November 13-15, 2002
Cambridge Health Institute Meeting on Functional Genomics, Boston, MA, Speaker	November 18-19, 2002
Structural Biology and Functional Genomics Singapore, Keynote Speaker	December 1-4, 2002
Proteomics in the Neurosciences Washington, D.C., Speaker	December 9-10, 2002
Proteomics in Aging Bethesda, MD, Speaker	December 10-11, 2002
2003	
Keystone Symposium: Mechanisms of Toxicology Park City, UT (Speaker)	January 8-10, 2003
Keystone Symposium: Global Analysis of Complex Systems Park City, UT (Speaker)	February 20-23, 2003

Univ of Texas Medical Center Houston, Tx (Keynote Speaker)	February 28-March1, 2003
Biophysical Society Meeting San Antonio Tx (Speaker and Workshop chair and Organizer)	March 1-3, 2003
Systems Analysis of Transcription Cold Spring Harbor Laboratories	March 6-7, 2003
Keystone Symposium: Proteomics Keystone, CO (Speaker & Session chair)	March 26-30
NIH Workshop: Production and Crystalization of Proteins Bethesda, MD Keynote Speaker	April 11, 2003
Stanford Symposium on Chemistry and Genomics Stanford, CA (Speaker)	April 17, 2003
NIH Workshop: Diabetes and Proteomics Bethesda, MD Speaker	April 23-25, 2003
NIH Road Map Meeting Bethesda, MD	May 8, 2003
Yale Chemical Biology Symposium Session chair	May 16, 2003
Tannenbaum Symposium of genomics and Proteomics Toronto, Canada, Speaker	May 20, 2003
The Genome of Homo Sapiens Cold Spring Harbor, Speaker	May 28-June 2, 2003
The Diversity of Proteomes Stockholm, Sweden, Speaker	June 9, 2003
Gordon Conference on Molecular, Cell Biology Tilton Academy, New Hampshire, Speaker	June10-11, 2003
Gordon Conference on Analytical Chemistry New London, CT, Speaker	June 15-17, 2003
International Meeting on Arabidopsis Madison, Wisconsin Keynote Speaker	June 20-21, 2003
International Yeast Meeting Gotteborg, Sweden, Speaker	July 7-12, 2003
Gordon Conference on Molecular Therapeutics of Cancer Oxford, UK	July 13-15, 2003
Mouse Initiatives Conference Bar Harbor, ME Speaker	July 31-August 2, 2003
CABM Symposium Rutgers, NJ Speaker	October 8, 2003
Human Proteome Organization/IUBMB Meeting Montreal, Canada Speaker	October 8-11, 2003
CEGS Grantee meeting Seattle, WA Speaker and Discussion chair	October 20-21, 2003
NIH Minority Training Meeting Seattle, WA	October 21, 2003
Functional Genomics Workshop Cambridge, UK Speaker	November 1-3, 2003
ENCODE Workshop Bethesda, MD Speaker	December 19, 2003

2004

Keystone Symposium on Human Gene Variation January 8-11, 2004
Bethesda, MD Speaker
Yale Developmental Biology Symposium
New Haven Welcome Speaker
*Penn. State Graduate Student Research Forum
Hershey, PA, Keynote Speaker March 5, 2004
Annual Biology Symposium: Proteomics
Toronto March 6, 2004
Proteomics Workshop : High Throughput Technologies
Los Angeles, Speaker March 24-26, 2004
Keystone Symposium on Biological Discovery/Throughput Data March 30-April 1, 2004
Steamboat Springs Speaker
HUPO Plasma Proteome Meeting April 22, 2004
Washington, D.C.
Yeast Conference Planning Meeting April 24, 2004
Seattle, Co-Organizer
Systems Biology Meeting April 25-26, 2004
Seattle, WA, Speaker
Health Sciences Research Days; Tulane Univ. April 28, 2004
New Orleans, Keynote Speaker
Functional Genomics of Aging April 30-May 2, 2004
Crete, Greece, Speaker
Biology of Genomes May 12-15, 2004
Cold Spring Harbor, Session Chair Speaker
Plant Genomics May 27-29, 2004
HongZhou, China, Speaker
Symposium on Biophysics and Structural Biology
Univ of Chicago June 2-3, 2004
ASBMB Meeting
Boston, MA CoOrganizer of Genomics and Proteomics Submeeting June 13-16, 2004
Speaker (2 Talks)
ALA Lab FusionMeeting June 15, 2004
Boston, MA, Speaker
ENCODE Meeting June 28-30, 2004
Rockville, MD, Speaker and Session Chair
FASEB Meeting Yeast Chromosome Structure, Replication & Segregation
Pine Mountain, GA, Speaker July 10-13, 2004
International Meeting on Yeast Genetics and Molecular Biology July 27-31, 2004
Seattle, WA CoOrganizer & Workshop Chair
Gordon Research Conference on Palnt and Fungal Cytoskeleton
Proctor Academy August 15-17, 2004
Gordon Research Conference on Macromolecular Organization
Oxford, UK August 18-2004
Yeast Genomics Infrastructure Workshop
Princeton, NJ August 27, 2004
Methods in Protein Structure Analysis
Seattle, WA August 29-31, 2004
ACCR Conference on Proteomics October 7-9, 2004
Key Biscayne FL

Functional Genomics Meeting Heidleberg, Germany	October 16-19, 2004
Centers of Excellence in the Genome Sciences Meeting Palo Alto, CA	October 20-21, 2004
Frontiers in Nanotechnology Bejing, China Speaker and Session Chair	October 24, 2004
HUPO Meeting Bejing, China Speaker and Session chair	October 24-27, 2004
ENCODE Meeting Cold Spring Harbor	November 10-11, 2004
Functional Elements in the Mammalian Genome Cold Spring Harbor	November 11-12, 2004
Plant Genome: From Sequence to Phenome Cold Spring Harbor Organizer + Speaker	December 9-12, 2004
2005	
Standards in Proteomics NIH, Bethesda, Speaker	January 3-4, 2005
Keystone Meeting on Plant Cell Signalling Sante Fe, Keynote Speaker	February 1-3, 2005
AAAS Meeting on Omics Information Washington, D.C., Speaker	February 19, 2005
USHUPO Annual Meeting Washington, D.C., Speaker	March 13-15, 2005
Fungal Genetic Conference Asilomar, CA Plenary Speaker	March 15-18, 2005
Proteomics and Bioinformatics Keystone Meeting Keystone, CO, Speaker	April 9-11, 2005
Comparative Genomics Symposium New York City, Keynote Speaker	April 25, 2005
Biology of Genomes Cold Spring Harbor, NY	May 11-13, 2005
Molecular and Genetic Regulation of Cell Proliferation Gordon Conference Colby Sawyer College, NH, Speaker	June 28-30, 2005
Systems Biology: Molecular Diagnostics Using Systems Approaches Princeton, NJ, Speaker	July 13-14, 2005
ENCODE Data Analysis Workshop Bethesda, MD Analysis Group CoChair	July 15-18, 2005
ENCODE Consortium Meeting Rockville, MD, Analysis Group CoChair and Speaker	July 19-20, 2005
IUMS Meeting San Francisco, CA	July 23-25, 2005
Yeast Genetics Meeting Bratislava	August 8-11, 2005
Arabidopsis 2010 Interim Review Arlington, VA	August 25, 26
Chip to Hits Boston, MA, Keynote Speaker	Sept 12, 2005
Swedish Proteomics Society Stockholm	October 9-10, 005

Ben May Symposium Chicago, IL Speaker	October 17, 2005
Protein Chip Group Boston, MA, Speaker	October 25, 2005
Minority Action Plan Meeting NIH GRI New Haven , Meeting Organizer	Oct 31-Nov 1, 2005
CEGS Annual Meeting New Haven , Meeting Organizer & Speaker	November 1-3, 2005
Yale Bioinformatics Symposium New Haven , Meeting Organizer	November 4, 2005
Yale ENCODE Transcriptional Regulation Workshop Santa Cruz, CA Meeting Organizer	November 8-9, 2005
Yale ENCODE Genes Transcript Workshop Santa Cruz, CA	November 10-11, 2005
Systems Biology Conference Ottawa, CA Keynote Speaker	November 17-18, 2005
Connecticut Stem Cell Retreat North Haven, CT	November 30, 2005
2006	
ENCODE Scale-UP Meeting Bethesda, MD	January 13, 2006
*Advances in Genome Biology Marco Island, FL Keynote Speaker	February 9-11, 2006
DREAM Workshop N.Y Academy of Sciences	March 10, 2006
U.S. HUPO Meeting Boston, MA Meeting Coorganizer	March 12-15, 2006
*Genomes to Systems Biology Manchester, U.K. Keynote Speaeker	March 22-24, 2006
Functional Genomics of Aging Palmero, Italy + Speaker	March 30-April 1, 2006
ASBMB Proteomics Submeeting Organizer + Speaker	April 1-5, 2006
*Keystone Meeting on Abiotic Stress in Plants Keynote Speaker	April 8-10, 2006
*Cambridge Health Institute GOT Meeting Boston, MA Keynote Speaker	April 26, 2006
Biology of Genomes CSHL, Speaker	May 10-13, 2006
Regulatory RNAs CSHL, Speaker	May 31-June 2, 2006
Technology to Biology and Back Again Stanford, CA. Speaker	June 8-9, 2006
Omics Meeting Roswell Institute	June 14, 15, 2006
FASEB Conference: Yeast Chromosome Structure, Replication and Segregation Palm Springs, CA, Speaker	June 27-29, 2006
ENCODE Meeting Bethesda, MD	July 5-6, 2006

Yeast Genetics and Molecular Biology
Princeton, N.J Meeting organizer, Speaker — July 25-30, 2006
FASEB Conference: Transcription Regulation and Differentiation
Saxton River, VT, Speaker — August 13-17, 2006
*MGED Meeting
Seattle, WA, Keynote Speaker — Sept. 6-9, 2006
Minority Action Plan Meeting
Los Angeles, CA — Sept., 25-26, 2006
CEGS Meeting
Los Angeles, CA — Sept., 26-28, 2006.
CABM Symposium
Rutgers, NJ — October 17-18, 2006
SACNAS Meeting
Rutgers, NJ — October 26-27, 2006
*International HUPO Meeting
Long Beach, CA Invited Keynote Speaker — Oct. 30-Nov. 1, 2006
*ORFeome Meeting
Harvard, MA — November 15-17, 2006
*AOHUPO Meeting
Singapore — December 3-7, 2006

2007

HUPO Initiatives Meeting
Barbados, Speaker — January 7-10, 2007
PEW Scholars Reunion
Cancun, Mexico, Speaker — January 13-16, 2007
US HUPO Meeting
Seattle, WA, Speaker — March 5-8, 2007
Plant Genomics
CSHL CoOrganizer, Speaker — March 15-18, 2007
Keystone Meeting on Systems Biology
Steamboat Springs, C o Organizer, Speaker — March 22-27, 2007
**ABRF
Tampa, FL Keynote Speaker — April 1-2, 2007
Genomics Symposium
Univ. of Michigan, Ann Arbor Speaker — April 16, 2007
ASBMB Proteomics Symposium
Washington, D.C. Speaker — May 1-2, 2007
ModENCODE Meeting
CSHL, Speaker. — May 6-8, 2007
Biology of Genomes Meeting
CSHL, Session Chair, Speaker. — May 8-11, 2007
European Meeting of the Protein Society
Stockholm, Sweden Session Chair, Speaker. — May 11-15, 2007
**Pan American and Brazilian Biochemistry and Molecular Biology Meeting
Salvador, Brazil Keynote Speaker — May 22-26, 2007
CT Stem Cell Retreat
Wesleyan, CT Speaker — June 27, 2007
NCI Workshop : Interfacing Animal Models w/Human Cancer Biomarker Development
Rockville, MD — July 16, 2007

AACC Mtg, Clinical Proteomics Symposium
San Diego, CA Speaker — July 17-18, 2007
**Uppsala Center of Excellence NeuroScience Symposium
Uppsala, Sweden Featured Speaker — August 27-28, 2007
**IBC Discovery to Diagnostics
Philadelphia, PA Keynote Speaker — September 17, 2007
HUPO Cancer Symposium Workshop
Seoul, Korea, Speaker — October 7, 2007
HUPO Meeting
Seoul, Korea Session Chair, Workshop Organizer, Speaker — October 8-10, 2007
Genomics and Systems Biology Mtg
Hinxton, UK, Speaker — October 11-14, 2007
Genomics Integrity Mtg
NYC. NY, Speaker — October 29, 2007
CT Stem Cell Retreat
New Haven, CT — November , 2007
Genetics Conference
Gainsville, FL, Speaker — November 7, 2007
NIH Symposium on the Functional Genomics of Critical Illness and Injury
Bethesda, MD — November 14, 2007
ENCODE Consortium
Bethesda, MD, Speaker, Session Chair — November 28-29, 2007
**DREAM II Conference
NYC, NY Keynote Speaker — December 3-4, 2007
"Frontiers in Population Genomics: Research Directions for NHGRI
Bethesda, MD — December 18-19, 2007

2008

GSA Model Organisms to Human Disease
San Diego Speaker — January 5-9, 2008
**Mining The Plasma Proteome
San Diego Keynote Speaker — January 8, 2008
Keystone Regulatory Mechanisms in Eucaryotic Transcription
Keystone, CO speaker — February 5-7, 2008
New Sequencing Technologies
NYAS, NYC speaker — March 10, 2008
US HUPO Annual Meeting
Bethesda, MD speaker — March 14-18, 2008
Candida albicans Biannual Meeting
New Jersey, speaker and Workshop Chair — March 26, 2008
CSH Systems Biology Meeting: Regulation of Gene Expression
CSHL, NY — March 27-30, 2008
**Vanderbilt Human Genetics Retreat
Student Invited/Keynote Speaker — April 9, 2008
Targeting and Tinkering with Interaction Networks
Barcelona, Spain — April 14-16, 2008
**Genetics Day
Univ. of Rochester, NY Keynote Speaker — April 25, 2008
Genome and Epigenome Variations in Disease
Univ, of Virginia, Charlottesville — May 4-6, 2008

Protein Function, Structure and Engineering Laval Univ., Quebec City, Canada	May 28, 2008
Nucleic Acids Gordon Conference Salve Regina, RI	June 1-6, 2008
modENCODE Bethesda, MD	June 15-18, 2008
ENCODE Bethesda, MD	June 17-19, 2008
International Yeast Genetics and Molecular Biology Meeting Toronto, Canada Session Chair, Organizing Committee	July 22-27, 2008
Proteomics, Data Release Policy Meeting Amsterdam Session Chair	August 14, 2008
HUPO Meeting Amsterdam, Session Chair and Speaker	August 16-20, 2008
International Conference on Systems Biology Gothenburg, Sweden	August 23-27, 2008
Next is Now: DNA Sequencing Symposium Yale Univ, Organizer	September 19, 2008
HUGO Meeting Hyderabad, India Plenary Speaker, Session Chair	September 29, 2008
ESF Conference in Functional Genomics & Disease Innsbruck, Austria	October 1-4, 2008
CSHL Personal Genomes Meeting CSHL	October 9-12, 2008
Minority Action Plan Meeting Pasadena, CA	October 14-15, 2008
Center of Excellence in Genome Sciences Meeting Pasadena, CA	October 15-17, 2008
Protein Structure Initiative Meeting Bethesda, MD	October 30-31, 2008
EMBL Functional Genomics Meeting Heidelberg, Germany	November 15-18, 2008
ENCODE Data Analysis Workshop Bethesda, MD	December 8-9, 2008
2009	
Keystone Symposia: Omics Meets Cell Biology Breckenridge, CO	January 27-29, 2009
Lorne Proteomics Meeting Lorne, Australia	February 6-8, 2009
Lorne Cancer Biology Meeting Lorne, Australia	February 12-15, 2009
Lorne Genomics Meeting Lorne, Australia	February 15- 18, 2009
IPAM Meeting UCLA	February 19, 2009
USHUPO Meeting San Diego	February 22-25, 2009
Yale Week In Mexico Monterrey, Mexico	March 14, 2009

STEMCONN2009 New Haven, CT	March 23-24, 2009
ENCODE/modENCODE Meeting Bethesda, MD	March 25-27, 2009
IRB Recent Advances in Regulatory Networks Barcelona, Spain	April 20-21, 2009
CSHL Biology of Genomes CSHL, NY	May 5-8, 2009
RECOMB2009 Tuscon, AZ	May 20-21, 2009
Stanford Clinical Genomics Retreat Stanford, CA	May 22, 2009
Genomics Biology and Bioinformatics Meeting Univ of Toronto, Canada	May 27, 2009
SMBE2009 Univ, of Iowa	June 3-4, 2009
Nobel Symposium on Systems Biology Stockholm, Sweden	June 21-27, 2009
Biochemical Engineering XVI Meeting Vermont	July 8, 2009
International Meeting on Yeast Genetics and Molecular Biology Manchester, UK Keynote Speaker	July 20-25, 2009
ENCODE Analysis Working Group Huntsville, AL	July 28-29, 2009
International Symposium on Mass Spectrometry San Francisco, CA	August 23-27, 2009
International Conference on Systems Biology Stanford, CA	August 30-Sept. 4, 2009
HUPO VIII World Conference Toronto, Canada	September 26-30, 2009
7th Annual Meeting NHGRI Research Training Advisory Committee with MAP/CEGS Grantees Huntsville, AL, speaker	October 13-16, 2009
Buck Symposia on Aging: Systems Biology of Aging Novato, CA, keynote speaker	November 10, 2009
Structural Variation in the Human Genome CSHL, NY, speaker	November 15-18, 2009
Stanford University School of Medicine GAT Symposium Stanford Univ., CA, speaker	December 8, 2009
2010	
Bay Area Yeast and Other Fungi Symposium Univ. of California, Berkeley, CA	January 23, 2010
11th Annual Advances in Genome Biology and Technology Marco Island, FL	February 24-27, 2010
US HUPO Annual Meeting Denver, CO, organizer	March 7-10, 2010
ENCODE and modENCODE Consortia Meeting Rockville, MD	March 10-12, 2010
10th ASM Conference on Candida and Candidiasis Miami, FL	March 22-26, 2010

Systems Biology
CSHL, speaker — March 23-27, 2010
Stanford Cancer Center Member Retreat
Stanford Univ., CA, speaker — April 7, 2010
Bio-X/Agilent Technical Summit
Stanford Univ., CA — April 20, 2010
Annual Stanford Symposium for Genomics and Personalized Medicine
Stanford Univ., CA, organizer — April 23, 2010
Proteomics 2010
Boston, MA, speaker — April 26, 2010
Biology of Genomes
CSHL, NY, speaker — May 11-15, 2010
14th Human Genome Meeting 2010
Montpellier, France, speaker — May 18-21, 2010
Systems Biology Approaches to Cancer and Metabolic Disease
Stockholm, Sweden, speaker — May 20-22, 2010
Consumer Genetics Conference
Boston, MA, speaker — June 2-4, 2010
GENETICS 2010: Model Organisms to Human Biology
Boston, MA, organizer — June 12-15, 2010
Physical Sciences in Oncology Center Symposium
Los Angeles, CA, speaker — June 18, 2010
AWG Barcelona Meeting: Access to CRG Computing Infrastructure
Barcelona, Spain — July 18-20, 2010
Yeast Genetics and Molecular Biology Meeting at the University of British Columbia
Van Couver, Canada, speaker — July 27-Aug 1, 2010
The 9th Annual Computational Systems Bioinformatics Conference at Stanford
Palo Alto, CA, speaker — August 17-18, 2010
Stanford Mass Spectrometry Users Meeting
Palo Alto, CA, speaker — September 2, 2010
Cancer Center Friday Seminar Series at UCSF
San Francisco, CA, speaker — September 10, 2010
Stanford Genetics Department Retreat
Monterey Bay, CA, organizer — Sep. 15-17, 2010
HUPO World Congress
Sydney, Australia, speaker — September 19-22, 2010
MABS Study Section Review
Washington DC — September 28-29, 2010
Beta Cell Biology Consortium Meeting
Washington DC — October 3-5, 2010
Biochemistry Seminar at UCSD
San Diego, CA, speaker — October 7, 2010
NIH Renewable Protein Capture Reagents Workshop
Washington DC — October 20-21, 2010
NHGRI Research Training Advisory Committee Meeting
Tempe, AZ — October 26, 20101
8th Annual Grantee Meeting at the Centers of Excellence in Genomic Science
Tempe, AZ, speaker — October 27-29, 2010
ENCODE PI Analysis Meeting

Rockville, MD November 1-2, 2010
EMBO Conference Series – From Functional Genomics to Systems Biology
Heidelberg, Germany, speaker November 13-16, 2010
RECOMB 2010: 3rd Annual Joint Conference of Systems Biology, Regulatory Genomics, and Reverse Engineering Challenges
New York, NY, speaker November 16-20, 2010
Bay Area Mass Spectrometry Meeting
Foster City, CA, speaker December 15, 2010
Human Immune Phenotyping Meeting
Bethesda, MD, speaker December 16, 2010

2011

The Lawrence Berkeley National Laboratory Life Sciences Seminar
Berkeley Lab – Life Science Division, speaker January 18, 2011
Personalized Medicine World Conference
Mountain View, CA, speaker January 18-19, 2011
Biochemistry and Biophysics Seminar at UCSF
University of California/San Francisco, CA, speaker January 25, 2011
MABS Study Section Review
San Francisco, CA January 27-28, 2011
Molecular and Cellular Proteomics Associate Editors Meeting
San Francisco, CA January 29, 2011
Frontiers of Cardiovascular Science Seminar Series at the Stanford Cardiovascular Institute
Stanford, CA, speaker February 8, 2011
Genome Sciences Seminar Series at the University of Washington
Seattle, Washington, speaker February 16, 2011
Human Genome Conference: The Next 10 Years (*Keynote*) at the J Craig Venter Institute
La Jolla, CA, speaker February 22-23, 2011
American Association for Cancer Research-NCI conference on Systems Biology
La Jolla, CA, speaker February 27-28, 2011
Department of Human Genetics Seminar at the University of Chicago
Chicago, IL, speaker March 9, 2011
Personal Omics Seminar at the Salk Institute
La Jolla, CA, speaker March 10, 2011
US HUPO Conference at the Raleigh Conference Center
Raleigh, NC, speaker March 21, 2011
Department of Molecular Biology and Genetics Seminar at Cornell University
Ithaca, NY, speaker March 24, 2011
Department of Molecular Biology at Princeton University
Princeton, NJ, speaker March 31, 2011
SAGE Commons Congress Meeting
San Francisco, CA April 15-16, 2011
NIDDK Drug Response Conference at the Bethesda North Marriott
Bethesda, MD, speaker April 21, 2011
CSHL Biology of Genomes Meeting at the Cold Springs Harbor Laboratory
Cold Springs Harbor, NY, speaker May 10-12, 2011
Duke Center for Systems Biology 4th Annual Retreat
Pittsboro, NC May 17, 2011
VA Genomic Medicine Program Advisory Committee Meeting
Washington DC May 20, 2011

ModENCODE AWG Workshop
Rockville, MD — May 23, 2011
ENCODE and ModENCODE Consortia Meeting
Crystal City, VA — May 24-25, 2011
MABS Study Section Review Panel
Bethesda, MD — May 26, 2011
European Human Genetics Conference at the Novotel Amsterrdam City Hotel
Amsterdam, Netherlands, speaker — May 28-31, 2011
Structural Biology and BioComputing Seminar at the Spanish National Cancer Research Center
Madrid, Span, speaker — June 3, 2011
Summit on Systems Biology at the Virginia Commonwealth University
Richmond, VA, speaker — June 15-17
Beyond Sequencing Conference at the Hotel Kabuki
San Francisco, CA, speaker — June 21, 2011
Clinical Proteomic Tumor Analysis Consortium Kickoff Meeting
Bethesda, MD — August 24-26, 2011
Mechanisms of Eukaryotic Transcription Meeting at CSHL
Cold Springs Harbor, NY, speaker — August 30 - Sep. 3, 2011
HUPO 10th World Congress in Geneva
Geneva, Switzerland, speaker — September 4-7, 2011
Early Detection Research Network Scientific Workshop
Bethesda, MD, speaker — September 13-15, 2011
Next Generation Genetics Association Studies PI Meeting
Bethesda, MD — September 15, 2011
Stanford Genetics Department Retreat
Monterey, CA, speaker — September 21-23, 2011
MABS Study Section Review Panel
Chevy Chase, MD — September 29, 2011
Beta Cell Biology Consortium Fall Planning Meeting
Washington DC — October 3-5, 2011
Human Genome Variation Society Annual Meeting
Montreal, Canada, speaker — October 11, 2011
12th International Congress on Human Genetics/ASHG
Montreal, Canada, speaker — October 12-15, 2011
Frontiers in Epigenomics and Disease Meeting
Baeza, Spain, speaker — October 17-19, 2011
Distinguished Lecturer at the European Molecular Biology Laboratory Meeting
Heidelberg, Germany, speaker — October 20, 2011
SACNAS National Conference at the Tech Museum
San Jose, CA — October 26, 2011
Fall Genetics Graduate Group Genomics and Epigenomics Seminar Series/ UC Davis
Davis, CA, speaker — November 7, 2011
Human Immunology Project Consortium Semi-Annual Meeting
Palo Alto, CA, speaker — November 10, 2011
Pioneers in Genomic Biology at the University of Illinois
Urbana, IL, speaker — November 15, 2011
Clinical Proteomic Tumor Analysis Consortium Steering Committee Meeting
National Harbor, MD — November 16, 2011
Society and Personal Genome Programme at the Sanger Institute

Hinxton, Cambridge, UK, speaker November 28, 2011
Wellcome Trust Functional Genomics and Systems Biology Conference
Hinxton, Cambridge, UK, speaker November 29, 2011
Systems Biology Center New York Symposium
New York, New York, speaker December 1, 2011
Protein Capture Reagents Meeting at the Hyatt regency
Bethesda, MD, speaker Dec 15-16, 2011

2012

Annual Stem Cell Symposium/ Institute for Stem Cell and Regenerative Medicine
Seattle, WA, speaker January 12, 2012
Dean's Strategic Planning Retreat
Santa Cruz, CA January 20, 2012
Personalized Medicine World Conference
Mountain View, CA January 23, 2012
Molecular and Cellular Proteomics Associate Editors Meeting
San Francisco, CA January 28·2012
Child Health Research Institute Strategic Planning Retreat
Stanford, CA January 30, 2012
MABS Study Section Review Panel
Seattle, WA February 8-9, 2012
Honorable Guest Speaker of the Metabolomics Conference from Omics Group
San Francisco, CA, speaker February 20-21, 2012
Genomic Screening and Diagnosis of Human Diseases Conference
San Francisco, CA, speaker February 21-23, 2012
US HUPO Conference
San Francisco, CA, speaker March 4-7, 2012
Human Genome Meeting
Sydney, Australia, speaker March 11-14, 2012
LaTrobe University Seminar
Melbourne, Australia, speaker March 15, 2012
Monash Institue for Medical Research Seminar
Melbourne, Australia, speaker March 16, 2012
Knowledge Works Lecture at the University of South Australia/Australian Wine Research Inst.
Adelaide, Australia, speaker March 19, 2012
James Cooke University Research Seminar Series
Townsville, Australia, speaker March 23, 2012
6th Garvan Signaling Symposium at the Garvan Institute
Sydney, Australia, speaker March 26, 2012
12th Hunter Cell Biology Conference
Pokolbin, Australia, speaker March 27-30
Clinical Proteomic and Tumor Analysis Consortium Site Visit at Johns Hopkins
Baltimore, MD April 12, 2012
Stanford Cancer Institute Members Retreat
Palo Alto, CA April 16, 2012
Howard Hughes Medical Institute Investigator Review
Chevy Chase, MD April 17-18, 2012
Stanford Symposium for Genetics and Personalized Medicine
Palo Alto, CA April 20, 2012
3rd SAGE Commons Congress Meeting

San Francisco, CA April 21, 2012
American Society for Biochemistry and Molecular Biology Conference
San Diego, CA, speaker April 22, 2012
Distinguished Green Lecture Series in Systems Biology/UT Dallas
Dallas, Texas, speaker April 26, 2012
Next Generation Genetics Association PIs Meeting
Bethesda, MD April 30, 2012
Beta Cell Biology Consortia Investigators Retreat
WashingtonDC May 1, 2012
Keystone Symposium on Proteomics and Interactomes
Stockholm, Sweden, speaker May 7-11, 2012
GeoGenetics Lecure at the University of Copenhagen
Copenhagen, Denmark, speaker May 13, 2012
EMBL Genome Biology Unit Review Panel
Heidelberg, Germany May 14, 2012
50th EMBL Scientific Advisory Committee Meeting
Heidelberg, Germany May 15, 2012
Genetics Lecture at the University of Uppsala
Uppsala, Sweden, speaker May 16, 2012
International Scientific Advisory Board Meeting
Uppsala, Sweden May 16, 2012
American Thoracic Society Symposium on Personalized Medicine
San Francisco, CA, speaker May 22, 2012
Samuel Lunefeld Research Institute International Symposium in Personalized Healthcare
Toronto, Canada, speaker May 31, 2012
MABS Study Section Review Panel
Washington, DC June 4-5, 2012
18th Hemoglobin Switching Conference
Monterey Bay, CA, speaker June 9, 2012
American Society for Microbiology Conference for Undergraduate Educators
San Mateo, CA, speaker June 14, 2012
New Frontiers in Computing/ Stanford University (*Keynote*)
Palo Alto, CA, speaker June 16, 2012
Model Organisms to Human Biology Cancer Genetics Meeting
Washington DC, speaker June 17-18, 2012
Omics and Integration in Biology and Medicine Workshop
Washington DC, speaker June 19-20, 2012
Genomics of Model Organisms and Human Biology: Insights from the ModENCODE Project
Washington DC, speaker June 20-21, 2012
Auto-Reactome Consortium Meeting
Amsterdam June 13, 2012
VA Computation Genomics Working Group Meeting
Alexandria, VA June 23-24, 2012
Yeast Genetics & Molecular Biology Meeting
Princeton, NJ July 31-Aug. 3, 2012
The 13th International Conference on Systems Biology (*Keynote*)
Toronto, Canada, speaker August 19-23, 2012
The 13th International Congress on Yeast
Madison, WI, speaker August 26-30, 2012

The 11th Annual HUPO World Congress
Boston, MA — September 9-13, 2012
CVI Annual Member Retreat
Stanford, CA, panel speaker — September 13-14, 2012
The 6th Comprehensive Cancer Research Training Program
Stanford, CA, speaker — September 17-21, 2012
Stanford Genetics Department Retreat
Monterey, CA — September 19-21, 2012
BSRI Scientific Retreat
San Francisco, CA, speaker — September 24, 2012
Genetics Lecture at Berkeley
Berkeley, CA, speaker — September 27, 2012
2012 Mayo Clinic Individualizing Medicine Conference
Rochester, MN, speaker — October 1, 2012
Basic Science Fundraising Initiative Meeting
Stanford, CA — October 3, 2012
West Coast Metabolomics Center Opening Symposium
Davis, CA, speaker — October 8, 2012
Molecular and Medical Genetics Seminar at Oregon Health and Science University
Portland, OR, speaker — October 9-10, 2012
Signatures Seminar Series and Pacific Northwest National Laboratory
Richalnd, WA, speaker — October 11, 2012
Beckman Coulter 2012 Science & Technology Symposium
Brea, CA, speaker — October 16, 2012
Biochemistry Seminar Speaker at University of Colorado
Boulder, CO, speaker — October 17, 2012
Frontiers in Genomics Symposium, Institute for Genome Sciences, U of Maryland
Baltimore, MD, speaker — Ocotber 18, 2012
2012 Rustbelt RNA Meeting
Dayton, OH, keynote speaker — October19-20, 2012
Association for Molecular Pathology 2010 Annual Meeting on Genomic Medicine
Bethesda, MD, speaker — October 25-27, 2012
Nature Institute for Genomic Medicine Annual Symposium
San Diego, CA, speaker — November 4, 2012
American Society of Human Genetics Meeting 2012 Annual Meeting
San Francisco, CA — November 6-10, 2012
Illumina Discovery Symposium
San Francisco, CA, speaker — November 6, 2012
HiT Center Symposium on Human Systems Biology
Johns Hopkins University in MD, speaker — November 15, 2012
2012 CQS Seminar Series at Vanderbilt
Nashville, TN, speaker — November 16, 2012
University of Toronto's Department of Molecular Genetics Fall Coloquium.
Toronto, Canada, speaker — November 26, 2012
8th Annual Personalized Medicine Conference at Harvard University
Boston, MA, panel speaker — November 28, 2012
Massachusetts General Hospital Seminar
Boston, MA, speaker — November 29, 2012
ENCODE PI Meeting

Rockville, MD	December 2, 2012
Trends in 21st Century Epidemiology	
Bethesda, MD, panel speaker	December 12-13, 2012
2013	
Pacific Symposium on Biocomputing 2013	
Big Island, Hawaii, speaker	January 3-7, 2013
Personalized Medicine World Conference 2013	
Silicon Valley, CA, speaker	January 28-29, 2013
The Dean's Strategic Leadership Retreat	
Carmel Valley, CA	February 1, 2013
Molecular & Cellular Proteomics Associate Editor's Meeting	
San Francisco, CA	February 2, 2013
UofA, College of Medicine-Phoenix Basic Medical Sciences Seminar Series	
Phoenix, AZ, speaker	February 13-14, 2013
2013 Cellular & Molecular Basis of Disease Seminar Series	
Albuquerque, NM, speaker	February 15, 2013
UCSF/PSPG Graduate Program Seminar Series	
San Francisco, CA, speaker	February 20, 2013
2014 ASBMB Program Planning Committee Meeting	
Rockville, MD	February 23, 2013
Next Gen Investigators Meeting	
Stanford, CA	March 4, 2013
The Future of Genomic Medicine VI	
La Jolla, CA, speaker	March 7-8, 2013
US HUPO – 9th Annual Conference	
Baltimore, MD, speaker & session chair	March 10-13, 2013
Advisory Panel Meeting on a Yeast Project	
London, England	March 14, 2013
Proteomic Forum 2013	
Berlin, Germany, speaker	March 17, 2013
Review of the EMBL's Bioinformatic Research Activities	
Hinxton, Cambridgeshire UK	March 18-20, 2013
Genetica Retraite 2013	
Rolduc, Maastricht, honorary lecture	March 21, 2013
Netherlands Cancer Institute Seminar	
Amsterdam, speaker	March 22, 2013
Investors Tour of Life Sciences Companies – Dinner Seminar	
Palo Alto, CA, speaker	March 26, 2013
Frontiers in Genomics in 2013 of the National University of Mexico	
Mexico City, Mexico, speaker	April 1, 2013
Eminent Speaker Seminar Series	
Birmingham, Alabama, speaker	April 3, 2013
Brown Foundation Institute of Molecular Medicine Seminar	
Houston, TX, speaker	April 4, 2013
Stanford Symposium for Genetics and Personalized Medicine	
Palo Alto, CA	April 12, 2013
The Joint International Congress of Genetics and the Human Genome Organization Conference	
Singapore, speaker	April 14-19, 2013
Tokyo Medical & Dental University Seminar	

Tokyo, Japan, speaker	April 19, 2013
2013 Illumina Asia Pacific Scientific Summit	
Puket, Thailand, speaker	April 21-23, 2013
3rd Annual World Pharmacogenomics Summit	
San Francisco, CA, speaker	April 30, 2013
Genetics Semiar Series at Harvard Medical School	
Boston, MA, speaker	May 1, 2013
Medical and Population Genetics Meeting at The Broad Institute	
Cambridge, MA, speaker	May 2, 2013
Institute for Biomedical Informatics Genomics and Computational Biology 2013 Annual Retreat	
Philadelphia, PA, Keynote speaker	May 6, 2013
Beta Cell Biology Consortium 2013 Investigator Retreat	
Reston, VA	May 7, 2013
Biology of Genomes 2013 Meeting	
Cold Springs Harbor, NY, speaker	May 8, 2013
Illumina Moleculo Talk at Bilogy of Genomes	
Cold Springs Harbor, NY, speaker	May 9, 2013
Review of EMBL's Cell Biology and Biophysics Unit	
Heidelberg, Germany	May 13, 2013
Big Data in BioMedicine Conference	
Stanford, CA, speaker	May 22, 2013
Conference to Eliminate Health Disparities in Genomic Medicine	
San Francisco, CA	May 29, 2013
ENCODE Consortium Meeting	
Stanford, CA	May 29-30, 2013
European Human Genetics Conference (ESHG)	
Paris, France, speaker	June 8-11, 2013
Keystone Symposium on Human Genomics and Personalized Medicine	
Stockhom, Sweden, speaker	June 17-20, 2013
Nestlé Institute of Health Sciences Seminar	
Lausanne, Switzerland, speaker	June 21, 2013
The 9th Molecular Biology of Hearing and Deafness Conference	
Stanford, CA, Keynote speaker	June 22, 2013
The Clinical Epigenome Conference	
San Francisco, CA, Keynote speaker	June 26, 2013
NCI Center for Strategic Scientific Initiatives "Science Day"	
Bethesda, MD	June 27, 2013
JASON 2013 Summer Study	
La Jolla, CA, speaker	July 1, 2013
Site visit of the Early Detection Research Network Biomarker Developmental Laboratory	
Tempe, AZ, external consultant	July 18, 2013
AP Biostudio for High School AP Teachers	
Stanford, CA, speaker	July 25, 2013
2nd Annual Genome in a Bottle Workshop	
Gaithersburg, MD, speaker	August 15, 2013

Members of my laboratory also attend these meetings; oral presentations and/or posters are frequently given.

Yale Biology Departmental Positions (Since 1986)
Director of Undergraduate Studies, Biology Spring Term 1989
Implemented Several New Elements into Departmental Curriculum including:
New BS/MS program; Departmental Advising Handbook; Biology Curriculum Revisions
Director of Undergraduate Studies, Biology 1996-2002
Undergraduate Affairs Committee 1987-1989, 1992-93, 1996-1998
Departmental Space Committee 1987-1988
Departmental Animal Care Facilities 1987-1990
Departmental Executive Committee, Div. I 1988-1989, 1996-1998
Chairman, Biology Department Cookie Committee 1986-1991
In charge of Kline Media Facility 1986-present
Curriculum Committee Spring, 1989
Business Office Review committee 1990-1992
Graduate Affairs Committee 1990-1992, 1993-1995
Faculty Search Committee (for Two Plant Scientists) 1990-1991
Faculty Search Committee (Molecular Signaling) 1994-95
Faculty Search Committee (Computational Biology) 2006-2007
Faculty Search Committee (All areas) 2007-2008
Segraves Faculty Review/Reappointment Committee, Chairman (1994)
Irish Review Committee 1996-97
Departmental Seminar Coordinator 1994-95
Joint Appointments Committee 1997
Department Chair, 1998-2004
Biological Sciences Advisory Committee 2005-present

MB&B Departmental Positions
Stockroom Committee 1993-94, 1994-95
Faculty Search Committee 1996-97

University Positions
Graduate School Executive Committee 1996-97
Yale Science Forum Organizing Committee 1999-2004
Embryonic Stem Cell Oversight Committee 2006-present
Biomedical Engineering Search Committee 1999-2001
Microarray Oversight Committee 1999-
Peking University-Yale Plant Molecular Biology Center Steering Committee 2000-present
Bioinformatics Planning Committee 2000-present
Keck Center Oversight Committee 2001-present
Corporate Partners Program, Director 1998-current
STARS Undergraduate Research Advisory Committee, 2001-Current
I am involved in and oversee numerous minority programs (e.g. Teachers Workshops, etc.)
Stanford School of Medicne
Campaign Committee
Executive Committee

Professional Organizations
Genetics Society of America

American Association for the Advancement of Science
American Society for Cell Biology
American Society for Microbiology
U.S. HUPO
HUPO

Mentoring
Undergraduae Academic Advisor
Yale ~~160 students
Yale, Director of Undergraduate Studies 1992-1998. Revised the MCDB curriculum.
Stanford 24 students
Summer research: Approximately 80 students, mostly diversity students

Graduate PhD Mentor (65 students)
Many have gone on to high profile academic and industry careers (e.g. Brendan Manning, Harvard School of Public Health; Christine Horak, Bristol-Myers-Squibb)

Postdoctoral Mentor (150)
Many have gone on to high profile academic and industry careers (e.g. Heng Zhu, Johns Hopkins; Jackie Vogel, McGill; Yves Barral ETH; Petra Ross-MacDonald, Bristol-Myers-Squibb)

Visiting Scientists (5)

Other
Many technicans in my laboratory have gone onto academia.

Thesis committees

	Student	Advisor
Past		
	M. Roberts	F. Ruddle
	L. Bogorard	F. Ruddle
	T. Coleman	Mooseker
	M. Heintzelman	Mooseker
	C. Harnett	Ornston
	G. Harnett	Ornston
	M. Cheng	Horwich
	T. Menees	Roeder
	M. Sym	Roeder
	N. Walworth	Novick
	J. Rothberg	Artavanis-Tsakonas
	J. Chalupny	Kavathas
	M. Regulski	McGinnis
	A. Neuman	Ferro-Novick
	A. Curry	Rosenbaum
	M. Lilly	Carlson
	M. McKenna	Carlson
	R. Hughes	Grindley
	B. Page	Snyder

C. Yang	Snyder
K. Xie	Snyder
C. Costigan	Snyder
S. Sobel (1996)	Snyder
K. Madden (1997)	Snyder
N. El-Sayed	C. Patton
Y. Jiang	Ferro-Novick
J.P. Lian	Ferro-Novick
S. Dessian	McGinnis
T. Brutnell	Dellaporta
B. McGonigle	Nelson
P. Zheng	Stern
K. Kozminski (1996)	Rosenbaum
Q. Gu	Cheung
S. Kirshnan	Wyman
V. Guacci	D. Kaback (UNDNJ)
C. Sparks	S. Doxsey (U. Mass Worchester)
P. Gaines (1996)	Carlson
B. Govindan (1996)	Novick
Z. Jiang (1996)	F. Ruddle
Y. Li (1995)	Altman
C. Yoo (1997)	Wolin
X. Sun (1997)	Artavanis-Tsakonas
M. Ronemus (1997)	Dellaporta
D. Miklos	Horwich
D. Plehn-Dujowich (1997)	Altman
E. Harkins (1998)	Keshishian
C. Mallick (1997)	Hayday
W. Chen (1998)	Helenius
L. Ang (1998)	Deng
P. Clyne (1998)	Carlson
P. Chua (1998)	Roeder
A. Woodard (1998)	Languino
V. Stolc (1999)	Altman
S. Carr (1999)	Irish
J. Kimmelman (1999)	Solomon
G. Laff (1999)	Solomon
Z. Sun (1998)	D. Stern
J. Barrett (1999)	Snyder
M. Parra (1999)	Snyder
N. Stoop (1999)	Çoleman/Deng
S. Branda (1999)	Isalya
Hong Chen (1999)	Pietro deCamilli
Y.-J. Sheu (2000)	Snyder
B. Manning (2000)	Snyder
J.-Y. Sheu (1999)	Roeder
J. Bailus(2000)	Roeder
C. Cianci (1999)	Morrow
K. Ross (1999)	Solomon

R. Stewart (2000)	T. Xu
M. Freeman (1999)	Carlson
A. Fluegge (1999)	Gonda
Lihao Meng (2000)	Crews
B. Kowalski-Pannone (2000)	Wolin
Nick Sokol (2001)	Cooley
S. Reck-Peterson (2001)	Mooseker
G. Serino (2001)	Deng
Jianling Yuan (2001)	Glaser
Li-Lin Du (2001)	Novick
Yilun Lui (2001)	Maziels
Karen Erkhard (2001)	Dohlman
Jemima Barrowman (2002)	Ferro-Novick
Denis Lazarev (2002)	Breaker
Ronald Jansen (2002)	Gerstein
Michael Buszczak (2002)	Cooley
C. Horak (2002)	Snyder
Ben Kwok (2003)	Crews
S. Bidlingmaier (2003)	Snyder
J. Hanrahan (2003)	Snyder
Eun-Jun Hong (2003)	Roeder
Karin Finberg (2003)	Lifton
Marc Schwartz (2002 or 3)	Stern
Rick Wilson (2003)	Lifton
G. Mitchell (2003)	Breaker
A. Dobritsa (2003)	Carlson
Karen Wehner (2003)	Baserga
Jeff Holt (2004)	Mooseker
Danielle Nelson (2003)	Williams
Sean Murray (2003)	Sweasy/Low
John Rinn (2004)	Snyder
Rebecca Goetsch (2004)	Snyder
Vaso Tsakraklides (2003)	Solomon
Ali Navhi (2004)	Ron Breaker
Petur Peterson (2004)	W. Zhong
Keith Tanis (2004)	A. Koleske
Steve Johnson (2004)	F. Slack
Aaron Goldman (2004)	Carlson
Petur Peterson (2004)	Zhong
Paul Bertone (2005)	Snyder/Gerstein
Ellen France (2005)	Novick
Catherine Sterling (2005)	Joanne Sweasy
Jen Gallagher (2005)	S. Baserga
Aga Czopik (2005)	R. Medzhitov
Rania Zaarour (2004)	Mooseker/Novick
Anandasankar Ray (2005)	John Carlson
Chunling Yi (2005)	Xing-Wang Deng
Haiyuan Yu (2005)	M. Gerstein
Steve Hartman (2005 0r 6)	Snyder

Shawn Straszewski (2006)	G. Moore
Huiyang. Cai (2005 or 6)	Ferro-Novick
Darinel Ortiz (2005 or 6)	Novick
Jing Li (2006)	Roeder
David Hall (2006)	Snyder
Jason Ptacek (2006)	Snyder
Geeta Devgan (2006)	Snyder
Anjali Nath (2007)	Snyder/Madri
Montrell Seay (2007)	Snyder/Dinesh Kumar
Neil Mitra (2006)	Roeder
Tomomi Tsubouchi	Roeder
Dhara Amin	David Stern
Naomi Nakayama	V. Irish
Antony Jose	M. Koelle
Jonathan McMenamin-Balano	D. Stern
Kara Porwancher	S. Baserga
Huaqing Cai	S. Ferro-Novick
Zareen Gauer	K. White
Liang Chen	H. Zhao
Gillian Hooker	S. Roeder
Michelle Boehm	F. Slack
Chris Beltzner	T. Pollard
Ken Jones	D. Wells
Thomas Royce	M. Gerstein
Peter Chi (2007)	P. Sung
Alexander Urban (2007)	Snyder/Weissman
Anjali Nath (2007)	Snyder/Madri
Xiaowei Zhu (2008)	Snyder
Elias Theorodou (2008)	Snyder
Janine Mok (2008)	Snyder
Jeffrey Caplan (2008)	S. Dinesh-Kumar
Richard Reznick (2008)	G. Schulman
Rui Chen (2008)	G. Mor
Tara Gianoulis (2008)	Snyder/Gerstein
Sarah Rousch (2009)	F. Slack
Lena Chin (2009)	F. Slack
Lei Bai (2009)	J. Carlson
Joseph Fasolo (2010)	Snyder
Brian Reed (2010)	Snyder/Weissman

Thesis Committees

Present

Alexandra Charos	Snyder
Brian Reed	Snyder/Weissman
Karl Waern	Snyder
Rajini Haraksingh	Snyder
Jennifer Hardee	Snyder
Philippe Lefrancois	Snyder
Chris Heffelfinger	Snyder

Donald Sharon	Snyder
Akwasi Asabere	Snyder
Mark Kaganovich	Snyder
Raymond Auerbach	Snyder/Gerstein
Lukas Habeggar	Snyder/Gerstein
Chong Shou	Snyder/Gerstein
Mauve O'Hallichain	Snyder
Maithreyi Krishnaswami	T. Koleske
Beth Goldsmith	K. White
Pete Angelatro	C. Jacobs-Wagner
Whitman Schofield	C. Jacobs-Wagner
Charmaine Chan	T. Pollard
Prianka Patel	M. Gerstein
Rachel Felberbaum	M. Hochstrasser
Erik Miller	G. Crabtree
Anotonia Dominguez	R. Reijo Pera
Eric Van Nostrand	S. Kim

I have also served on numerous qualifying exam committees in addition to those listed above.

Teaching Activities (Since 1986)

1986-87

Bio 315b Cell Biology 315b	6 lectures	~70 students.

1987-88

Bio 405a Molecular Genetics of Prokaryotes	6 seminars Supervised	~45 students
Cell Bio 502a Cell biology	1 lecture	~110 students.
Bio 315b Cell Biology 315b	7 lectures	~70 students.
Bio 692b Advances in Cell Biology	3- 2.5 hr sessions	~10 students.

1988-89

Bio 314a Molecular Biology of the Cell	10 lectures	~25 students.
Bio 495a,b Intensive Research in Biology*	Research Course 14 Meetings (1.5 hr) in Spring	27 students
Bio 475b Biology Research*	Research Course	20 students.
Bio 470b Biology Tutorial*	Independent Study	6 students

1989-90 (On leave this year, junior faculty fellowship)

Bio 310a Molecular Biology of the Cell	2 lectures	70 students

1990-91		
Bio 692a Advanced Seminar in Cell Biology	Seminar/discussion course	~8 students
Bio 310a,b Molecular Biology of the Cell*	12.5 lectures	70 students fall ~45 students spr
1991-92		
Bio 310a,b Molecular Biology of the Cell*	10.5 lectures	80 students fall ~47 students spr
Bio 604b Advances in Cell Biology	2 lectures (2.0 hr)	~18 students
1992-93 (On leave Fall semester)		
Bio 310b Molecular Biology of the Cell*	7.5 lectures	27 students
MB&B 301b Biochemistry	2 lectures	~110 students
1993-94		
Bio 310a Molecular Biology of the Cell*	9.5 lectures	59 students
Bio 692a Advanced Seminar in Cell Biology: Mitosis and the Cell Cycle*	Seminar/Discussion Course (~2.5 hr/wk)	25 students
1994-95		
Bio 310b Cell Biology II: The Nucleus and Cell Cycle*	10 lectures	~55 students
Cell Bio 742a Advanced Seminar in Cell Biology:	Seminar/Discussion Course (~2.0 hr/wk)	18 students
Current Topics in Molecular and Cellular Biology Summer course for Medical Students and Faculty	1 lecture	~35 individuals
1995-96		
Bio 310b Cell Biology II: The Nucleus and Cell Cycle*	5 lectures	42 students
Bio 470b Biology Tutorial*	Independent Study	2 students
Bio 595*	M.S./B.S. research	2 students
1996-97		
Bio 692a Advanced Seminar in Cell Biology: The Regulation of Cell Proliferation	Seminar/Discussion Course (~2.5 hr/wk)	25 students
Bio 470a,b Biology Tutorial*	Independent Study	2 students
Bio 310b Cell Biology II: The Nucleus and Cell Cycle*	6 lectures	70 students
Bio 585/595*	M.S./B.S. research	2 students
Bio 695b Advanced Seminar in Genetics: The Regulation of Cell Cycle	Seminar/Discussion Course	7 students
1997-98		
Bio 692a Advanced Seminar in Cell Biology: The Regulation of Cell Proliferation	Seminar/Discussion Course (~2.5 hr/wk)	15 students
Bio 470a,b Biology Tutorial*	Independent Study	2 students

Bio 310b Cell Biology II: The Nucleus and Cell Cycle*	8 lectures	65 students
Bio 585/595*	M.S./B.S. research	4 students

1998-99

MCDB 370b Biotechnology*	(6.5 lectures) 37 students

1999-00

Path 640a Molecular Medicine/Modern Biology	(1 lecture) 80-100 students
MCDB 452a Genomics	(1 lecture) 40 students
MCDB 370b Biotechnology*	(4 lectures) 50 students

2000-01

MCDB 600a Advanced Biological laboratory*	2 weeks of laboratory 18 students
MCDB 452a Genomics	(2 lecture) 60 students
MCDB 370b Biotechnology*	(7 lectures) 50 students

2001-02

MCDB 600a Advanced Biological laboratory*	2 weeks of laboratory 8 students
Path 640a Molecular Medicine/Modern Biology	(1 lecture) 50 students
MCDB 452a Genomics	(2 lecture) 60 students
MCDB 370b Biotechnology*	(7 lectures) 50 students

2002-03

MCDB 452a Genomics	(3 lectures) 50 students
MCDB 600a Advanced Biological laboratory*	3 weeks of laboratory 14 students
MCDB 370b Biotechnology*	(7 lectures) 40 students
Chem Chemical Biology	(1 lecture) 25 students

2003-04

MCDB 452a Genomics	(3 lectures) 50 students
Forestry Biotechnology Course	(1 lecture) 20 students
MCDB 370b Biotechnology*	(7 lectures) 40 students
Advanced Topics Biochemistry	(1 lecture) 20 students

2004-05

On leave

2005-06

MCDB 452a Genomics	(2 lectures) 30 students
MCDB 370b Biotechnology*	(12 lectures) 50 students

2006-07

MCDB 452a Genomics	(3 lectures) 30 students
MCDB 600a Advanced Biological laboratory*	2.5 weeks of laboratory 11 students
MCDB 370b Biotechnology*	(9 lectures) 45 students
Riverfield Elementary School	1 lecture

2007-08

Fall Amity High School	1 lecture
MCDB 452b Genomics	(3 lectures) 15 students
MCDB 370b Biotechnology*	(9 lectures) 47 students

2008-09

MCDB 452b Genomics	(3 lectures) 15 students
MCDB 370b Biotechnology*	(8 lectures) 50 students
MCDB 600b Advanced Biological laboratory*	2.5 weeks of laboratory - 7 students

2009-10

BIO 109A/209A Human Genome & Disease	(1 lecture)
BIOC 218 Computational Molecular Biology	(1 lecture)
MI 235 Applications of High-Throughput Sequencing	(1 lecture)
Gene 202	(2 lectures)
Genetics 210	(1 lecture)
Gene 211	(3 lectures)
Bio-X USRP Faculty Talks	(1 talk)

2010-11

Gene 202	(2 lectures)
Genetics 210	(1 lecture)
Gene 211	(3 lectures)
Bio-X USRP Faculty Talks	(1 talk)
MED 223	(1 lecture – May 23, 2012)

2011-12

Gene 202	(2 lectures)
CSB 230	(1 lecture – Nov. 17, 2011)
Genetics 210	(1 lecture)
Gene 211	(3 lectures)
Bio-X USRP Faculty Talks	(1 talk)
BIOMEDIN 205	(1 lecture)

2012-13

Gene 202	(2 lectures)
Genetics 210	(1 lecture)
Gene 211	(3 lectures)
Bio-X USRP Faculty Talks	(1 talk)
BIOMEDIN 205	(1 lecture)

2013-14

Gene 202	(2 lectures)
Genetics 210	(1 lecture)
Gene 211	(3 lectures)
Bio-X USRP Faculty Talks	(1 talk)

2014-15

Gene 202	(2 lectures)
Genetics 210	(1 lecture)
Gene 211	(3 lectures)

*In charge.
All lectures 1 hr 15' unless stated otherwise.

HawaiianEthos

Strategic Partners & Vendors

the science of cannabis

100 Pioneer St. Ste E
Santa Cruz, CA 95060
(866) 435-0709
info@sclabs.com
www.sclabs.com

To:
Hawaiian Ethos LLC.
[redacted]

On behalf of SC Labs, I'm submitting this letter as our formal intention to provide advisory services and solutions for Hawaiian Ethos and their cultivation partner La'au Pono. I have spoken with Chris Whidden and Zachary Taffany at Hawaiian Ethos and have analyzed their specific needs and thus feel confident writing this letter as public demonstration of our intention to provide guidance on solutions within the field of Medical Cannabis Science and Laboratory Testing.

SC Labs is the national leader in the field of cannabis science. Founded in 2010, we are one of the first institutions to promote cannabis safety through education, testing, and certification.

At SC Labs, we encourage consumer confidence through state of the art cannabis testing and analysis. We strongly believe that patients, caregivers, and providers are entitled to accurate labeling of their medicine. Our testing methods are the product of rigorous peer review and are consistent with FDA, ELAP, and EPA guidelines.

We understand that Hawaiian Ethos has assembled a team with a track record of success and a passion for science and we believe in their ability to follow through on their mission and business plan. We are looking forward to contributing our expertise and guidance as they develop their testing laboratory and protocols.

If you have any questions about our agreement, feel free to contact me at (866) 435-0709

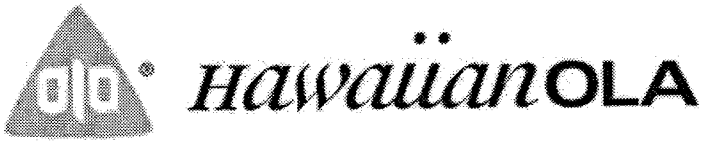
Thank you,

Sincerely,

Ian Rice

Co-Founder/Sales and Marketing Director

know your medicine



From:
Zachary Taffany
Dragononi Inc. DBA Hawaiian OLA
4234 Huanui St.
Honoulu, HI 96816
(877) 729-2717

To:
La'au Pono Inc.
68-1026 Honokaope Place,
Kamuela, HI 96743

I'm writing this letter on behalf of Dragononi Inc. DBA Hawaiian OLA to serve as our formal intention to provide production and manufacturing guidance and best practices to La'au Pono Inc. licensed under Hawaiian Ethos LLC. As an authorized representative of Dragononi Inc, I've been collaborating with key personnel at La'au Pono and Hawaiian Ethos to develop the production and manufacturing strategies. I feel confident writing this letter as public demonstration of our intention to provide solutions within our expertise relating to production and manufacturing operations.

Hawaiian OLA's Mission is to support a thriving Hawaiian environment and economy by empowering local farmers producing organic, responsibly grown crops.

Hawaiian OLA currently manufactures and distributes 8 products in the functional beverage category throughout the Hawaiian Islands and Western Region of the United States.

We have undergone the process to have our products certified as USDA Organic, Fair Trade, and Non-GMO Project Verified and we are also a certified B-Corp.

Our operations philosophy is to work with the land, using non-toxic methods, to plants crops that make sense, so that we can source our ingredients locally. Approximately 80% of our ingredients are sourced locally.

We are enthused to contribute our manufacturing expertise to La'au Pono and Hawaiian Ethos in order to provide safe and convenient access to medical marijuana patients in Hawaii and we are excited about the impact we will make on local agriculture as the industry evolves.

If you have any questions regarding the nature of this agreement, feel free to contact me directly.

Best regards,

Zachary Taffany
(415) 465-3071
z.taffany@hawaiianola.com

PRODUCTION AGREEMENT

THIS PRODUCTION AGREEMENT (this "Agreement") is entered into this [redacted] day of [redacted], but effective as of the Effective Date (defined below), by and between HAWAIIAN ETHOS, LLC, a Hawaii limited liability company ("Buyer"), whose address is [redacted] and LA`AU PONO, INC., a Hawaii corporation ("Seller"), whose address is [redacted]

RECITALS.

A. Seller has facilities (the "Facilities") for the cultivation, processing, production, manufacture, storage and transport of marijuana and marijuana products (the "Regulated Goods").

B. Buyer desires to purchase certain Regulated Goods exclusively from Seller, and Seller desires to sell such Regulated Goods to Buyer.

C. In consideration of the foregoing and the mutual agreements contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, and intending to be legally bound, Buyer and Seller agree as follows:

AGREEMENT.

1. Condition Precedent. Buyer is applying for a license (the "MMJ License") from the State of Hawaii Department of Health (the "DOH") to own and operate medical marijuana dispensaries and production centers in the County of Hawaii, as defined in Hawaii Revised Statutes Chapter 329D ("Chapter 329D," and including applicable administrative rules, and any other state or county laws related to medical marijuana (such laws collectively, the "Hawaii Medical Marijuana Laws"). This Agreement shall be effective immediately upon the receipt by Buyer of notification of award of the MMJ License to Buyer (the "Effective Date"). **In the event that the DOH does not grant Buyer the MMJ License, this Agreement shall be null and void and of no further force and effect.**

2. Term. The initial term of this Agreement shall commence on the Effective Date and shall continue for a period of [redacted] from the Effective Date (the "Initial Term" or the "Term"), unless sooner terminated or extended as set forth in this Agreement.

3. Automatic Renewal. Unless terminated by agreement of Buyer and Seller, in writing, within sixty (60) days prior to the end of the Initial Term, the Term shall automatically extend for an additional [redacted] period.

4. Supply and Purchase Obligations. Seller shall produce dried, trimmed flowers (the "Product") from marijuana plants grown and processed at the Facilities. Buyer shall be the sole customer of Seller. Seller shall offer for sale a minimum of [redacted] of Product or equivalent manufactured goods. The Product will be measured, tested, packaged,

labeled and delivered in accordance with the conditions and restrictions imposed by the Hawaii Medical Marijuana Laws.

5. Purchase Price. The purchase price for each pound of the Product shall be [redacted], plus Hawaii general excise tax (the "Purchase Price"). Buyer shall make payment to Seller within fifteen (15) days of Seller's delivery, and Buyer's acceptance, of the Product.

6. Interest on Late Payments. If Buyer shall become delinquent in the payment of any amounts in respect of the Purchase Price, Buyer shall also pay to Seller as an additional fee, interest on the delinquent Purchase Price from the respective due dates thereof until fully paid at the rate of twelve percent (12%) per year.

7. Delivery and Acceptance.

(a) Delivery by Appointment Only. Prior to each delivery, Seller shall arrange with Buyer an appointment to deliver the Product to Buyer's licensed dispensaries on the Island of Hawaii ("Licensed Dispensaries"), which shall be at least [redacted]

(c) Receiving and Inspection. Upon Seller's scheduled delivery of the Product at the Licensed Dispensaries, Buyer's representative will: (i) inspect the Product for indications of tampering; (ii) weigh the Product; and (iii) confirm proper order fulfillment.

(d) Rejection. At the time that Buyer inspects the Product prior to final sale, Buyer may reject any portion of the Product that Buyer determines is wet, damaged or otherwise not fit for sale to consumers (as determined by Buyer in its reasonable discretion). Buyer shall secure rejected Product until Seller's next scheduled delivery. Seller shall reclaim such Product rejected by Buyer and remove it from the Licensed Dispensaries at Seller's cost.

(e) Acceptance and Purchase. Seller's Product is deemed "accepted and purchased" upon Buyer's completion of its gross weighing process. At such time, Buyer will issue a bill of sale to Seller summarizing Seller's delivery. Any Product later discovered to be defective shall be treated as rejected Product, in accordance with Section 7(d), and amounts paid in respect of such defective Product shall be credited to Seller's account.

8. Passage of Title and Risk of Loss. All risk of loss and damage to Seller's Product shall remain Seller's responsibility until such Product is delivered to and accepted by Buyer pursuant to Section 7. Title and risk of loss and damage shall pass to Buyer at the time Seller's Product is accepted by Buyer pursuant to Section 7.

9. Seller's Representations, Warranties and Covenants. Seller represents and warrants as of the date of this Agreement, and at all times during the Term, that Seller does and shall continue to:

(a) operate in accordance with the Hawaii Medical Marijuana Laws (which shall include conducting employee background checks, restricting access to the Facilities, and security measures, among other requirements);

(b) maintain ownership or possession of all property and equipment, and maintain access to the labor, reasonably necessary to produce the amount of Product to be sold to Buyer under this Agreement;

(c) implement good agricultural practices (including, but not limited to, pest management and sound water management systems), maintain records with regard to fertilizer usage and application, and implement any practices which have been identified as best management practices under Hawaii state law;

(d) utilize only those herbicides, fungicides, insecticides, nematicides, growth regulators and ripening agents that are labeled for use on the Regulated Goods in the United States and strictly adhere to all label recommendations, requirements and application rates for any product used;

(e) maintain records as required by the Environmental Protection Agency, the DOH and any other governmental agency with regard to the purchase and application of agriculture chemicals; and

(f) remove or cause to be released all liens and financing interests with respect to the Product, effective as of the time Seller delivers the Product to the Licensed Dispensaries.

10. Hawaii Medical Marijuana Laws. As the holder of the MMJ License, Buyer is subcontracting to Seller its rights under the MMJ License to cultivate and produce the Product. Seller shall not initiate contact with the DOH without the prior express approval of Buyer. Any provision of this Agreement to the contrary notwithstanding, Buyer and Seller covenant and agree that each party will perform its respective obligations under this Agreement only in compliance with the conditions and restrictions imposed by the Hawaii Medical Marijuana Laws. Seller and Buyer further covenant and agree that each shall take all steps necessary to facilitate compliance by the other party with the Hawaii Medical Marijuana Laws.

11. Right of Entry and Inspection. Buyer shall have reasonable access to the Facilities and shall be entitled to monitor and inspect all phases of Seller's marijuana cultivation, including, but not limited to, the monitoring of crop progress, the inspection of production or drying practices, and the testing and sampling of marijuana or soil; provided, however, that

Buyer shall access the Facilities only in compliance with the Hawaii Medical Marijuana Laws. Seller shall cooperate with Buyer in such inspection, monitoring and testing.

12. Takings. If the Product shall be seized, attached, executed, confiscated or levied upon under any legal process or under claim of legal right, or under forfeiture proceedings under state or federal laws, this Agreement shall terminate immediately upon seizure. In any such event, Buyer shall be entitled to prosecute a claim for the taking independent of any action by Seller.

13. Force Majeure. Neither party shall be liable to the other for its failure to perform any of its obligations under this Agreement during any period in which such performance is delayed by circumstances beyond its reasonable control, including, without limitation, acts of God, fire, flood, war, strike, riot, or inability to secure transportation facilities, or the intervention of any governmental authority. If any such delaying cause continues for more than sixty (60) days, the party continuing to perform shall have the right to terminate this Agreement.

14. Insurance. Seller shall maintain, at all times, the insurance required by those two certain Ground Leases, dated January [redacted] by and between [redacted] and Seller pursuant to which Seller leases the Facilities from [redacted]

15. Termination of this Agreement.

(a) Triggering Events. Either party may terminate this Agreement at any time upon written notice to the other with immediate effect in the event that:

(i) the other party enters into voluntary bankruptcy or a petition for involuntary bankruptcy of the other party is not dismissed for a period of sixty (60) days;

(ii) the other party becomes insolvent or unable to pay its debts as they mature, ceases to pay its debts as they mature in the ordinary course of business, or makes an assignment for the benefit of its creditors;

(iii) a receiver is appointed for the other party or its property; or

(iv) the other party is in material breach of any of the provisions of this Agreement in a manner which is not capable of remedy, or, where such breach is capable of remedy, such other party does not, following receipt of a notice requiring that the breach be remedied, remedy the breach within the reasonable time specified in the notice.

(b) Effect of Termination. Upon termination of this Agreement pursuant to Section 15(a), Seller shall:

(i) deliver, at Seller's expense (unless the termination is as a result of the default by Buyer in which case at the expense of Buyer), all Product in Seller's possession or

the possession of its agents to one or both of Buyer's Licensed Dispensaries or a disposal site approved by the DOH;

(ii) execute all documents reasonably necessary to enable Buyer to carry out its obligations to customers and make commercially reasonable efforts to cooperate with Buyer in making the necessary transition; and

(iii) make commercially reasonable efforts to cooperate with Buyer in the preparation of a final accounting. The balance owed to either party as evidenced by the final accounting shall be paid within thirty (30) days of the termination of this Agreement.

(c) MMJ License. Any provision in this Agreement to the contrary notwithstanding, in the event that Buyer's MMJ License expires or terminates prior to expiration of the Term, including, without limitation, due to the DOH's revocation of, or failure to renew, Buyer's MMJ License, this Agreement shall terminate on the last day that the MMJ License is in effect. Buyer shall promptly notify Seller of the expiration or termination of the MMJ License. The balance owed to either party as evidenced by the final accounting shall be paid within thirty (30) days of the termination of this Agreement.

(d) Seizure. If the Facilities or any part thereof shall be seized, attached, executed, confiscated, levied upon under any legal process or under claim of legal right, or under forfeiture proceedings under state or federal laws, this Agreement shall terminate immediately upon seizure. The balance owed to either party as evidenced by the final accounting shall be paid within thirty (30) days of the termination of this Agreement.

16. Assignment. This Agreement shall be binding upon the parties and their respective representatives, agents, successors and assigns. Seller shall not assign this Agreement without the express written consent of Buyer, which consent shall not be unreasonably withheld.

17. No Waiver. No failure on the part of either party, or any of their respective agents, to exercise, and no course of dealing with respect to, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise by either party or any of their respective agents of any right, power or remedy under this Agreement preclude any other or further exercise thereof or the exercise of any other right, power or remedy. The remedies herein are cumulative and are not exclusive of any remedies provided by law.

18. Section Headings. The headings of sections in this Agreement are inserted only for convenience and reference and shall in no way define or limit the scope or intent of any provision of this Agreement.

19. Severability. If any provision of this Agreement is invalid and unenforceable in any jurisdiction, then, to the fullest extent permitted by law: (i) the other provisions of this Agreement shall remain in full force and effect in such jurisdiction and shall be liberally

construed in favor of Buyer in order to carry out the intentions of the parties to this Agreement as nearly as may be possible, (ii) such provision shall be ineffective, but only to the extent of such invalidity and unenforceability, and (iii) the invalidity or unenforceability of any provision of this Agreement in any jurisdiction shall not affect the validity or enforceability of such provision in any other jurisdiction.

20. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement and supersedes all prior agreements and understandings between the parties to this Agreement. No amendment or modification of any provision of this Agreement shall be binding upon either party unless made in writing and signed by each party.

21. Independent Contractors. The parties to this Agreement are independent contractors. Nothing in this Agreement is intended nor shall it be deemed to constitute a partnership, agency, franchise, or joint venture relationship between the parties. No party shall incur any debts or make any commitments for the other except to the extent, if at all, specifically provided in this Agreement.

22. Notices. All notices, demands or documents which are required or permitted to be given or served hereunder shall be in writing and sent by: (i) first class, registered, or certified mail, postage prepaid, (ii) hand delivery or (iii) electronic mail, provided the other party to this Note confirms in writing the receipt of notice, addressed as follows:

If to Buyer: HAWAIIAN ETHOS, LLC

[redacted]

If to Seller: LA`AU PONO, INC.

[redacted]

Any such address may be changed from time to time by serving notice to all other parties as above provided. Service of such notice or demand shall be deemed complete on the day of actual delivery or at the expiration of the second day after the date of mailing, whichever is earlier.

23. Governing Law. This Agreement shall be governed by, and construed in accordance with, the law of the State of Hawaii, without regard to the choice of laws provisions thereof.

24. Time of Essence. Time is of the essence in the performance of any obligations under this Agreement.

25. Neither Party Deemed Drafter. All provisions of this Agreement have been negotiated at arm's length and with full opportunity to be represented of legal counsel and neither party shall be deemed to be the drafter of this Agreement. If this Agreement is ever construed by a court of law or by a board of arbitrators, such court or board shall not construe this Agreement or any provision of this Agreement against either party as the drafter of this Agreement.

26. Maximum Rate of Interest. Any interest payable under the terms of this Agreement shall not exceed the maximum rate permitted by law.

27. Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and either of the parties to this Agreement may execute this Agreement by signing any such counterpart.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed these presents as of the day and year first above written.

HAWAIIAN ETHOS, LLC,
a Hawaii limited liability company

By:_____
Name:
Title:

Buyer

LA`AU PONO, INC.,
a Hawaii corporation

By:_____
Name: Vernon Toshiaki Oi
Title:

Seller

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1/27/16 12194-1 952030 La`au Pono Production Agreement v2

IN WITNESS WHEREOF, the parties hereto have executed these presents as of the day and year first above written.

HAWAIIAN ETHOS, LLC,
a Hawaii limited liability company

By:_____
Name: Sheldon Flagg
Title: Manager

Buyer

LA`AU PONO, INC.,
a Hawaii corporation

By:_____
Name:
Title:

Seller

CannaGuard Security is the nation's premier Security and Compliance verification company. The Company provides specialized security consulting, security system design, equipment installation, monitoring, and ancillary security services for marijuana cultivators, processors, wholesalers, and retailers.

CannaGuard has worked with over 2000 applicants and licensees across the country. The company has completed over 150 installations in the highly regulated markets of OR and WA alone with a 100% first-inspection approval rate.

CannaGuard Security brings a robust background in security and technology to its operations, along with highly specialized industry knowledge regarding the legal and regulatory requirements for marijuana business security in each state. CannaGuard works very closely with the regulatory agencies not only to ensure licensees are maintaining compliance at all times, but to help make the agencies' jobs easier.

Noah Stokes, founder of CannaGuard, has worked on multiple of advisory committees in the creation of regulations, and has participated in industry conferences and associations educating people across the country on compliance.

Politically, Noah is a member of the Oregon Cannabis PAC and has worked hand in hand with the OLCC in the crafting of the rules and regulations for recreational MJ in Oregon. He is also very active in the fight for normal access to banking for the cannabis industry. He has addressed politicians in DC on multiple occasions, been asked to join senators and representatives press conferences, and testified to joint committees on MJ regulation because of his tireless work in driving the industry forward. He has also trained the OLCC cannabis regulators.

As a founding sponsor of the Cannabis Creative Conference (CCC), CannaGuard was instrumental in the implementation and success of the one of the largest, and arguably most successful cannabis B2B/educational conferences in the state of Oregon to date.

Industry participation:

- Member, OLCC Rules Advisory Committee, Wholesale Subcommittee
- Member, Oregon Cannabis PAC
- Member, Oregon Cannabis Association
- Founding sponsor, MJBA Portland Chapter
- Advise OLCC on Compliance Verification regulations (helped craft the language for the compliance and security draft rules)
- Testify to Joint Committee for MJ regulations
- Consultant/Trainer for new OLCC inspectors
- Advisor for OHA Updated Rules – per request of Attorney General
- Committee Chair - Security, FOCUS (Foundation of Cannabis Unified Standards), Standards Creation Committee

- Participant, Banking Reform Panel (w/ Senator Wyden, Senator Merkley, Congressman Blumenauer)
- Founding Partner/Industry Representative/Emcee: Cannabis Creative Conference

Past Conference/Speaker Participation:
MJ Biz Daily Conference & Expo, Illinois
Cannabis Creative Conference, Oregon (speaker and emcee)
NCIA Cannabis Business Conference, Colorado
CannaCon 1.0 and 2.0, Washington
CannaCon, Denver
MJBA, Washington & Oregon
NCIA, Washington
OR Cannabis Institute, Oregon

Press:
Forbes, Willamette Week, KGW-TV, KATU-TV, Ganjapreneur (full list at cannaguard.com)

Contact:
Noah Stokes, Founder/CEO
CannaGuard Security
O: 844.226.6248
M: 503.686.8100
E: noah@cannaguardsecurity.com

Estimate

Date	Quote #
[redacted]	849

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature

Page 1

Estimate

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Date	Quote #
[redacted]	849

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature _____

Page 2

Estimate

Date	Quote #
[redacted]	865

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature

Page 1

Estimate

Date	Quote #
[redacted]	865

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature _____

Page 2

Estimate

Date	Quote #
[redacted]	864

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature

Page 1

Estimate

Date	Quote #
[redacted]	864

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature _____

Page 2

Estimate

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Date	Quote #
[redacted]	863

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature

Page 1

Estimate

Date	Quote #
[redacted]	863

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature _____

Page 2

Estimate

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Date	Quote #
[redacted]	876

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature

Page 1

Estimate

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Date	Quote #
[redacted]	876

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature _____

Page 2

Estimate

Date	Quote #
[redacted]	877

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature

Page 1

Estimate

CannaGuard Security
5755 Jean Rd Ste 101
Lake Oswego, OR 97035

Date	Quote #
[redacted]	877

Name / Address
Hawaiian Ethos LLC

[redacted]

Signature _____

Page 2

Bio-Tech Medical Software, Inc.
BioTrackTHC
3101 N. Federal Highway, Suite 400
Fort Lauderdale, FL 33306
Phone: (800) 797-4711
Fax: (954) 206-0200

Quote: Hawaiian Ethos LLC
Software, & Install
[redacted]
Date: 1/4/2016

License Types	Contract Term:	Contact:
2 Med Dispensary License 1 Med Cultivation License	Month to Month	Steve Flaks

Qty	Item	Description	Base Price	Dis $	Unit Price	Total
2	Hawaii	Dispensary-MED				
1	Hawaii	Cultivation-MED				
	Customer can have up to 21 installs.					
3	Set- up and Install One time set up fee for all locations for installation, training.	Includes installation of software, deployment of SSL certificates, configuration of the server, additional training and technical support	$400			**$1200**
3	Monthly Cost Total for All Locations	Monthly subscription of BiotrackTHC software, full technical support and coverage, monthly updates to software, regulation changes.	$1500			**$4500**

Subtotal	**$5,700.00**
Tax	TBD---
Balance Due:	**$5,700.00**

Quotation valid for seven (7) days. _____
To accept this quotation, sign here, and return: X _____ Date: _____
Quotation prepared by:

[redacted]

1/12/2015

Reference: BioTrackTHC Support Document
Hawaiian Ethos, LLC

Dear [redacted]

BioTrackTHC provides effective cutting - edge technology solutions for the emerging legal marijuana industry. Solutions that not only prevent product theft, but assist business owners in running their cultivation, processing, packaging, and retail operations more profitably and more legally compliant. Furthermore, this is all done without leaving sensitive business and consumer data vulnerable in the cloud. Specifically, BioTrackTHC is the industry's only true seed-- to - sale software system with enterprise resource planning, complete inventory tracking, point- of - sale, marketing, financial reporting and regulatory compliance features. Subsequently, because it is a server - based system with advanced security features, customers can rest assured that no one,- not even the BioTrackTHC team,- can access their business or consumer information without their permission.

This document confirms BioTrackTHC's intentions to enter into a formal agreement with Hawaiian Ethos, LLC to provide software solutions guaranteed to meet published Hawaii Department of Health reporting, regulation, and compliance guidelines for cannabis production facilities in the event that an authorized license is obtained.

Thank you for your consideration of BioTrackTHC. We are eager to assist you in your efforts to acquire a license and look forward to entering into a software solution agreement with you upon receipt of that license.

Best Regards,

Moe Afaneh
Chief Operating Officer

[redacted]

BioTrackTHC™
The Only Seed to Sale Solution

Hawaii HB 321

(A) Secure inventory tracking and control;
(B) Protecting confidential customer information;
- (1) Ability to comply with the requirements in this chapter and chapters 329 and 3290, HRS, for inventory tracking, security, and sales limits for qualifying patients;
  - (1) Ability to maintain confidentiality of a qualifying patient's medical condition, health status, and purchases of marijuana or manufactured marijuana products;
- (2) Ability to comply with the requirements for certified laboratory testing on marijuana and manufactured marijuana products pursuant to this chapter and sections 3290-7 and 3290-8, HRS;
- (3) Ability to comply with requirements for signage, packaging, labeling, and chain of custody of products;
- (4) A plan for secure disposal or destruction of marijuana and manufactured marijuana products;

BioTrackTHC™ enables the business to collect, store, and retrieve all data and activity -- with respect to inventory records, quality assurance/laboratory testing, supplier records, patient records, client-records, employee records, recall reports, quarantine and waste reporting, sales/transaction records, disposal records, and all scanned documents -- at any time, in real time, either in-system or through the report generation tool. The System is able to record transfers of small amounts of marijuana product to a laboratory for testing. Input may include fields including but not limited to: date of transfer, transferred by, order number, source license number, laboratory name, laboratory license number, and list of transferred products including product ID, product name, lot and/or batch number, and quantity. BioTrackTHC creates a 16 digit non-repeatable identifier for each plant. This identifier is printed onto a barcode that is affixed to the plant and will remain associated with this given plant throughout its lifecycle. A user can trace the lineage of any product all the way back to the plant from which it derived. Any action performed by an employee is stored within the system indefinitely and is searchable.

(a) A dispensary licensee shall not transfer any marijuana or manufactured marijuana products to any other dispensary.

(b) A dispensary licensee shall not accept any marijuana or manufactured marijuana products from any other dispensary.

BioTrackTHC™
The Only Seed to Sale Solution

NO pre-rolls, no samples, no paraphernalia

§11-850-35 Employee records

(a) A dispensary licensee shall have available at each dispensary facility a time clock or other adequate method to record the month, day, year, and time that each employee arrives at and leaves the facility.

(b) Time record entries shall be made at the time an employee reports for duty and again when the employee goes off duty and at any time the employee leaves and returns to the premises for any reason.

(c) A dispensary licensee shall maintain all employee records, including the specific employee training provided and hours worked.

The Time Clock function within BioTrackTHC records the date and time that every employee clocks into and out of the system. A manager can be granted the permission within the system to modify the clock in/out times for an employee in the event of an error or someone forgetting to clock out.

§11-850-36 Transport

(a) A dispensary may transport marijuana and manufactured marijuana products between its facilities, and between its facilities and a laboratory for testing.

(b) Only employees designated by the dispensary licensee, who are trained and knowledgeable on the transportation protocols required by this chapter, shall transport marijuana and manufactured marijuana products. Every transport of marijuana and manufactured marijuana products shall be accompanied by at least two employees.

(c) Each time marijuana and manufactured marijuana products are transported, the dispensary licensee shall prepare a manifest on a form prescribed by the department that lists the elements required by the department's tracking system. A dispensary licensee shall only transport marijuana or manufactured marijuana products that are listed on the manifest. A dispensary licensee shall transport marijuana or manufactured marijuana products in secured containers . The dispensary licensee shall include a copy of the manifest in the interior and on the exterior of the container.

(b) Upon receipt of marijuana and manufactured marijuana products the dispensary licensee or the laboratory shall immediately report to the department any discrepancies between what is received and what is on the manifest.

(c) The designated employees transporting marijuana and manufactured marijuana products shall not stop at a location not listed on the manifest.

(d) The dispensary licensee shall transport marijuana and manufactured marijuana products using routes that reduce the possibility of theft or diversion.

(e) A dispensary licensee shall not transport marijuana or manufactured marijuana products:

(1) Off site to qualifying patients or to primary caregivers;
(2) To another county or another island within the same county; or
(3) To, from, or within any federal fort or arsenal, national park or forest, any other federal enclave, or any other property possessed or occupied by the federal government.

BioTrackTHC provides functionality for Cultivators, Processors and Dispensary Licensees to create transfer manifest documents. Transfer manifests will be stored and tracked by the System. Input data may include, but is not limited to, the following fields: ship from name, license number and route description. For each item include destination address, destination name, license number, address, product description, product ID and lot number, quantity and units of measure. Transfer manifests will be used as shipping documents for transfers between locations within an organization or sales between Licensees.

(b) A dispensary licensee shall give the department access to all parts of the dispensary property, equipment, records, documents, and any other substance, material, or information relevant to ensure the dispensary licensee's compliance with this chapter, upon request.

BioTrackTHC™ enables the business to collect, store, and retrieve all data and activity -- with respect to inventory transfers, inventory-tracking records, supplier records, patient records, client-records, employee records, recall reports, quarantine and waste reporting, sales/transaction records, disposal records, and all scanned documents -- at any time, in real time, either in-system or through the report creation tool.

§11-850-38 Reports.

(a) A dispensary licensee shall submit quarterly reports on January 15, April 15, July 15, and October 15.

If the due date for submitting a quarterly report falls on a Saturday, Sunday, or State holiday, the report will be on time if it is submitted on the next day that is not a Saturday, Sunday, or State holiday. Reports shall be submitted on a form and in a manner prescribed by the department.

(b) Reports shall include but not be limited to:

1. Records of entry and exit for all individuals who entered a dispensary facility;

2. Amounts by category of marijuana produced and manufactured marijuana products manufactured and offered for sale;
3. Amounts by category of marijuana and manufactured marijuana products sold;
4. A list of all marijuana, manufactured marijuana products, or unusable marijuana materials that have been destroyed or will be destroyed;
5. A summary financial statement;
6. Laboratory results of all tests conducted;
7. Description of any breach or halt in its security system and tracking system; and
8. Any other information requested by the department.

BioTrackTHC™ enables the business to collect, store, and retrieve all data and activity -- with respect to inventory transfers, inventory-tracking records, supplier records, patient records, client-records, employee records, recall reports, quarantine and waste reporting, sales/transaction records, disposal records, and all scanned documents -- at any time, in real time, either in-system or through the report creation tool.

§11-850-39 Audits

(a) A dispensary licensee shall obtain an independent financial audit annually, at the dispensary licensee's expense, and shall provide a copy of the audit's findings to the department.
(b) The report shall be completed and submitted to the department no later than sixty days prior to the end of the license expiration date, or at another time as the department may direct.
(c) When a license is revoked, suspended, surrendered, or expires, a dispensary licensee shall file a final report thirty days following revocation, suspension, surrender, or expiration.

In the course of doing business, a user can perform inventory audits to confirm or adjust what's showing in your inventory and what the user actually has on hand. After clicking on the Inventory Audit Icon a list will populate showing all of the items for inventory in the current inventory room. If the user wishes to run a "Blind Audit" this will prevent the employee from seeing the original weights or any differences. The Inventory Shrinkage report allows you to total loss across various products for a given time period with a threshold to ignore adjustments outside of a certain increment (mistakes).

§11-850-41 Record retention.

(a) A dispensary licensee shall retain for a minimum of six years business operation records including but not limited to:

(1) Inventory tracking including transport of marijuana and manufactured marijuana products;

(2) Sales and compliance with dispensing limitations for each qualifying patient and primary caregiver;
(3) Financial records including income, expenses, bank deposits and withdrawals, and audit reports;
(4) Logs of entry and exit for dispensary facilities; and
(5) Employee records.

(b) A dispensary licensee shall retain for a minimum of one year all security recordings.

BioTrackTHC™ enables the business to collect, store, and retrieve all data and activity. All inventory records, patient records, recall reports, sales/transaction records, product disposal records, and all scanned documents can be accessed at any time (real time), either in-system or through the report creation tool. Though system actions can be adjusted or voided, at no time is any data ever fully deleted as BioTrackTHC™ maintains a log of every action, including adjustments and voids, so that the entire history of the system may be reconstructed. The availability and report ability of the system data enables the said entity to produce any information necessary for the Department during an inspection or at the Department's request.

§11-850-42 Allowed quantities for dispensing.

(a) A dispensary licensee may dispense to a qualifying patient or primary caregiver any combination of marijuana or manufactured marijuana products that shall not exceed four ounces of marijuana during a period of fifteen consecutive days, and shall not exceed eight ounces of marijuana during a period of thirty consecutive days .

(b) Consistent with section 11-850-61, a dispensary licensee shall determine the quantity of marijuana or manufactured marijuana products purchased by a qualifying patient or primary caregiver from any other licensed dispensary within the state and shall not sell any amount of marijuana or manufactured marijuana products to that qualifying patient or primary caregiver of a qualifying patient that exceeds the limits identified in this chapter.

Within "Sales Limits" a user can regulate the permissible quantities allotted to a patient or caregiver.

§11-850-43 Disposal or destruction.

(a) A dispensary licensee or laboratory certified by the department to test marijuana and manufactured marijuana products shall dispose of or destroy unused, unsold, contaminated, or expired marijuana or manufactured marijuana products, or waste products resulting from the

cultivating or manufacturing process, including any inventory existing at the time of revocation or surrender of a license, in a way that assures that the marijuana or manufactured marijuana product does not become available to unauthorized persons and is documented as subtracted from inventory.

(b) A dispensary licensee shall destroy or dispose of unused, unsold, contaminated, or expired marijuana or manufactured marijuana products by a means prescribed by the department or the department of public safety narcotics enforcement division administrator.

(c) A dispensary licensee shall establish written policies and procedures to be followed by all of its employees for the disposal or destruction of unused, unsold, contaminated, or expired marijuana and manufactured marijuana products.

During or after a Harvest or Cure, a user would create a batch for the "green waste" which would include broad leaf trim, and stems that weren't going to be converted into a concentrated format. All waste would be weighed, given it's own 16-digit barcode, which is permanently stored in the system prior to it being destroyed. When a BioTrackTHC user sends a sample for Quality Assurance testing and the sample does not meet minimum standards, a user may; 1) Place the product into quarantine for destruction, or, 2) Convert the product into a different format. If the user converts the non-conforming sample and originating lot, the new converted product must be retested.

§11-850-61 Tracking requirements

(a) A dispensary licensee shall track electronically the dispensary's inventory of marijuana and manufactured marijuana products through each stage of processing, from propagation to point of sale, disposal, or destruction, and maintain a record of clear and unbroken chain of custody at all stages, including during transport of the inventory between dispensary facilities and between a dispensary facility and a laboratory.

(b) A dispensary licensee shall track electronically all sales of marijuana and manufactured marijuana products to qualified patients and primary caregivers from all dispensaries in the State, to ensure that no sales are authorized in excess of legal limits, as set out in section 3290-7, HRS, and shall have a sales system that automatically prohibits sales in excess of the legal limits and that cannot be overridden manually.

(c) A dispensary licensee shall acquire, operate, and maintain a secure computer software tracking system that interfaces with the department's computer software tracking system to allow the department real time, twenty-four hour access to the dispensary licensee's tracking system and inventory records. The dispensary licensee's tracking system shall capture and report all the data required by the department's tracking system.

(d) In the event of a breach or failure of its tracking system, a dispensary licensee shall suspend operations dependent on the tracking system until the tracking system is fully operable . The dispensary licensee shall notify the department immediately upon the breach or failure, and again when it resumes operations.

BioTrackTHC™ enables the business to collect, store, and retrieve all data and activity -- with respect to inventory records, quality assurance/laboratory testing, supplier records, patient records, client-records, employee records, recall reports, quarantine and waste reporting, sales/transaction records, disposal records, and all scanned documents -- at any time, in real time, either in-system or through the report generation tool. The System is able to record transfers of small amounts of marijuana product to a laboratory for testing. Input may include fields including but not limited to: date of transfer, transferred by, order number, source license number, laboratory name, laboratory license number, and list of transferred products including product ID, product name, lot and/or batch number, and quantity. BioTrackTHC creates a 16 digit non-repeatable identifier for each plant. This identifier is printed onto a barcode that is affixed to the plant and will remain associated with this given plant throughout its lifecycle. A user can trace the lineage of any product all the way back to the plant from which it derived. Any action performed by an employee is stored within the system indefinitely and is searchable.

PRODUCTS AND PRODUCT STANDARDS

§11-850-71 Marijuana.

(a) A dispensary licensee may dispense marijuana only in the form of dried matured processed flowers of female cannabis plants.

§11-850-72 Manufactured marijuana products.

(a) A dispensary licensee may manufacture marijuana products limited to capsules, lozenges, pills, oils and oil extracts, tinctures, ointments, and skin lotions.

§11-850-74 Equivalent weights for manufactured marijuana products.

(a) A dispensary licensee that produces manufactured marijuana products shall calculate the equivalent physical weight of the marijuana that is used to manufacture the product, and shall make available to the department and to consumers of the manufactured marijuana product the equivalency calculations and the formulas used.

(b) A dispensary licensee shall include the equivalent physical weight of marijuana on the label of the products offered for sale.

BioTrackTHC™
The Only Seed to Sale Solution

BioTrackTHC is a complete inventory control system that also creates a searchable, secure, tamper-evident record of each and every action performed within the system. The name and address of the recipient, the quantity delivered, and the product name, potency, batch number, and lot number of the product can all be recorded for each distribution.

LABORATORY CERTIFICATION, TESTING, AND STANDARDS

§11-850-81 Laboratory testing required.

A dispensary licensee shall not dispense marijuana or manufactured marijuana products unless a laboratory certified by the department pursuant to this chapter has tested the marijuana and manufactured marijuana products and they meet the requirements set out in this chapter.

§11-850-85 Laboratory standards and testing

(a) A certified laboratory shall test a statistically representative sample from each batch of marijuana or manufactured marijuana products. The dispensary licensee shall maintain in a secure tamper-proof manner a similar sample from the same batch, for verification testing as directed by the department.

(a) A certified laboratory shall issue to the dispensary licensee and the department a certificate of analysis for each batch of marijuana and manufactured marijuana products tested for that dispensary; provided that a certified laboratory may only test and report on those things for which it is certified. The certificate of analysis shall include the results with supporting data for the following:

(1) The chemical profile of the batch for the following compounds:
- (A) 9 (delta 9) - Tetrahydrocannabinol (THC)
- (B) Tetrahydrocannabinol Acid (THCA)
- (C) Cannabidiol (CBD)
- (D) Cannabidiolic Acid (CBDA)
- (E) Cannabigerol (CBG)
- (F) Cannabinol (CBN)

(2) The presence of the following contaminants, which shall not exceed the following levels:
- (A) Heavy metals:
  - (i) Arsenic 10.0 ppm
  - (ii) Lead 6.0 ppm
  - (iii) Cadmium 4.0 ppm (iv) Mercury 2.0 ppm

(B) Pesticides regulated by the U.S. Environmental Protection Agency: 1.0 ppm

(C) Solvents:

(i) Butanes 800 ppm

(ii) Heptanes 500 ppm (iii) Benzene** 1 ppm

(iv) Toluene** 1 ppm (v) Hexane** 10 ppm

(vi) Total Xylenes

(m,o,p-xylene) 1 ppm

** Contaminants in solvents

(D) Any visible foreign or extraneous material, that is not intended to be part of the product being produced, including but not limited to mold, hair, insects, metal, or plastic;

(E) Moisture content of plant material <15%

(F) Microbiological impurities, including but not limited to:

1. Total Viable Aerobic Bacteria:
   a. Unprocessed and Processed Materials: 105 Colony Forming Unit (CFU)/g
   b. C02 and Solvent Based Extracts: 104 CFU/g
2. Total Yeast and Mold:

(a) Unprocessed and Processed Materials: 104 CFU/g

(b) C02 and Solvent Based Extracts: 103 CFU/g

(iii) Total Coliforms:

(a) Unprocessed and Processed Materials: 103 CFU/g

(b) C02 and Solvent Based Extracts: 102 CFU/g

(iv) Bile-tolerant Gram Negative Bacteria:

(a) Unprocessed and Processed Materials: 103 CFU/g

(b) C02 and Solvent Based Extracts: 102 CFU/g

(v) *E. coli* (pathogenic strains) and *Salmonella spp.:* Not detected in 1 g

(vi) *Aspergillus fumigatus, Aspergillus flavus, Aspergillus niger :* <1 CFU/g;

(vii) Mycotoxins: <20 μg (micrograms) of any mycotoxin per kg of material; and

(3) Additional testing requested at the discretion of the department.

The above information can all be generated within BioTrackTHC and reflected on the label for each product.

(d) The certified laboratory may retest or reanalyze ,the sample or a different sample from the same batch by following its standard operating procedure to confirm or refute the original result, upon request by the dispensary licensee or upon request by the department at the dispensary licensee's expense.

(e) The certified laboratory shall return to the dispensary licensee or destroy in a manner approved by the department any samples or portions of samples of marijuana or manufactured marijuana products that remain after testing and analysis are completed.

(f) A certified laboratory shall create, and maintain for a period of at least five years, records of testing it conducts on marijuana and manufactured marijuana products, including but not limited to:

1. The time and date the sample was obtained;
2. A description of the sample, including the amount;
3. What tests were conducted on each sample;
4. The results of the tests including the certificate of analysis; and
5. Evidence of the time, date, and method of disposal or destruction of a sample after testing is completed, and the amount of sample disposed of or destroyed, or the time and date a sample was returned to a dispensary with a description including the amount;
6. and shall make all the records available to the department upon request.

(g) A dispensary licensee shall ensure that each sample is tested and analyzed for each of the items set out in subsection (c), and may obtain results from different laboratories for different items if a laboratory cannot perform all the tests.

(h) A dispensary licensee shall maintain records of all laboratory testing results including the certificate of analysis.

(i) The level of contaminants in marijuana and manufactured marijuana products shall not exceed the standards provided in subsection (c), and if any of the standards are exceeded, the dispensary licensee shall not dispense any portion of the batch of marijuana or manufactured marijuana product that does not conform to the standards.

(j) A dispensary licensee shall destroy a batch that does not conform to the testing standards set out in subsection (c) as indicated by the certificate of analysis; provided that a dispensary licensee shall quarantine a non-conforming batch until any retesting pursuant to subsection (d) is completed, after which the dispensary licensee shall dispose of or destroy the batch if the results of retesting confirm that the batch is non-conforming. For purposes of this section, quarantine means that the batch shall be separated from all other inventory and the quarantine status shall be indicated in the tracking system. The quarantine shall be lifted only by the department, and only upon

receipt by the department of a certificate of analysis indicating that the batch conforms to the testing standards set out in subsection (c).

BioTrackTHC automatically syncs testing data upon receipt from a certified testing location. Testing will ensure the product is free of contaminants with consistent THC and/or CBD levels. Furthermore, every plant interaction is recorded, including but certainly not limited to what additives are used and when, allowing cultivators to replicate results or make applicable changes to increase plant quality and consistency. BioTrackTHC syncs testing data to the applicable plant batch or barcode for easy display and retrieval. To simplify the process that information can be directly ported onto the associated product labels.

All aspects of the marijuana plants, byproduct wastes, weights, ID numbers and associated data is stored in the system indefinitely. Destruction event information and explanations are also documented and stored within the BioTrackTHC system. This data cannot be modified or deleted by the cultivation center employees or even by BioTrackTHC.

BioTrackTHC records manual inventory adjustments through a detailed notes section. The reason for disposal and, if applicable, disposal company are recorded and archived to the 16 digit barcode associated with the disposed cannabis. As with all transactions in the BioTrackTHC system, the employee responsible for the transaction is required to enter a PIN number or biometric fingerprint recording the date, time, and reason for the transaction.

§11-850-92 Packaging and labeling for retail sale.

(b) Each package shall be labeled using only black lettering on a white background with no pictures or graphics and shall include:

(1) Information about the contents and potency of the marijuana and manufactured marijuana product, including but not limited to:

(A) Net weight in ounces and grams or volume; and for manufactured marijuana products, also the equivalent physical weight of the marijuana used to produce the manufactured marijuana product;

(B) The concentration of tetrahydrocannabinol or 9 tetrahydrocannabinol, total tetrahydrocannabinol and activated tetrahydrocannabinol-A, and cannabidiol;

(2) The dispensary licensee's license number and the name of the production center where marijuana in the product was produced;

(3) The batch number and date of packaging;

(4) Includes a computer tracking inventory identification number barcode generated by tracking software;

(5) Date of harvest or manufacture and "Use by date";

(6) Instructions for use;

(7) The phrases "For medical use only" and "Not for resale or transfer to another person";

(8) The following warnings:

(A) "This product may be unlawful outside of the State of Hawaii and is unlawful to possess or use under federal law";

(B) "This product has intoxicating effects and may be habit forming";

(C) "Smoking is hazardous to your health";

(D) "There may be health risks associated with consumption of this product";

(E) "This product is not reconunended for use by women who are pregnant or breast feeding";

(F) "Marijuana can impair concentration, coordination, and judgment. Do not operate a vehicle or machinery under the influence of this drug"; and "When eaten or swallowed, the effects of this drug may be delayed by two or more hours";

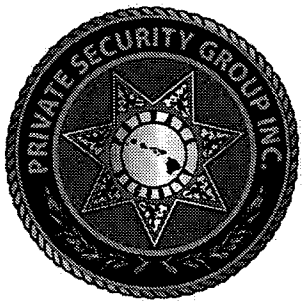
(6) A disclosure of the type of extraction method, including any solvents, gases, or other chemicals or compounds used to produce the manufactured marijuana product; and

(9) The name of the laboratory that performed the testing;

provided that the information in paragraphs (1) through (7) shall appear on the package, and the remainder may appear on a package insert or on the package.

(c) A dispensary licensee shall not label as organic any marijuana or manufactured marijuana product unless permitted by the United States Department of Agriculture in accordance with the Organic Foods Production Act.

BioTrackTHC™'s label creation tool enables licensed producers to create custom container-client labels with any fields necessary to comply with applicable law. All aforementioned required fields can be added as variables. In addition to this a user can add custom disclaimers and warnings. The system will automatically print the container-client specific label upon completion of the sale.



January 22, 2016

To whom it may concern,

Please find this letter, written on behalf of PSG Security as evidence of our intention to provide future security services and solutions for the medical marijuana license applicant Hawaiian Ethos. We have discussed Hawaiian Ethos intentions and understand their potential needs as an entity aspiring to provide services in the complex and emerging medical marijuana industry. We feel confident writing this letter as public notice of our intention to provide security services.

About PSG: Launched in January 2016, the PSG is a coalition of strategic partners and business leaders providing innovative security solutions while mitigating risks. The PSG Advisory Board brings together individuals with years of collective experience in law enforcement, government, and private sectors. PSG's expertise encompasses all facets of security risk management.

We are encouraged by Hawaiian Ethos' mission to ensure the qualifying Hawai'i Island residents access to evidence-based treatment choices for medical-grade cannabinoids and are looking forward to contributing our expertise to their endeavors.

If you have any questions about our intentions to collaborate, feel free to contact me at 808-479-8216. Thank you.

Sincerely,

Charles Long

Charles Long

CEO PSG Inc.

7192 Kalanianaole Highway G-102A Oahu
Honolulu, Hawaii 96825

16-166 William Street Hilo
Keaau, Hawaii 96749

GUSKE & COMPANY, INC.
Certified Public Accountants

P 425.455.2080
F 425.453.1334
dean@deanguske.com

1215 120th Avenue NE, Ste. 110, Bellevue, WA 98005 | www.deanguske.com

December 10, 2015

[redacted]

Dear [redacted]

This letter is to specify the terms of our engagement with Hawaiian Ethos, LLC, to clarify the nature and extent of the services we will provide, and to confirm an understanding of our mutual responsibilities.

We will provide ongoing tax and accounting consulting as requested. We will also be available to provide bookkeeping and accounting services including: entering original transactions, reconciling bank and credit card statements, processing payroll, preparing payroll tax returns and local tax reports, and preparing forms 1099, W-2, and W-3. Preparation of any federal and state income tax returns is not covered under this agreement. We will prepare a separate agreement letter for those services prior to beginning any of those tax returns.

We will not audit or review your financial statements, or any other accounting documents and information you provide, in accordance with generally accepted auditing standards. Accordingly, we ask that you not in any manner refer to this as an audit or review. Nor will we otherwise verify the data you submit for accuracy or completeness. Rather, we will rely on the accuracy and completeness of the documents and information you provide to us. Accordingly, our engagement cannot be relied upon to disclose errors, fraud, or other illegal acts that may exist. However, it may be necessary to ask you for clarification of some of the information you provide, and we will inform you of any material errors, fraud or other illegal acts that come to our attention, unless they are clearly inconsequential. In addition, we have no responsibility to identify and communicate significant deficiencies or material weaknesses in your internal controls as part of this engagement, and our engagement cannot, therefore be relied upon to make disclosure of such matters.

You are responsible for adopting sound accounting policies, for maintaining an adequate and efficient accounting system, for safeguarding assets, for authorizing transactions, for retaining supporting documentation for those transactions, and for

devising a system of internal controls that will, among other things, help assure the preparation of proper financial statements. Furthermore, you are responsible for management decisions and functions, for designating a competent employee to oversee any of the services we provide, and for evaluating the adequacy and results of those services.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the Company involving (a) management (b) employees who have significant roles in internal control, and (c) others where the fraud could have a material effect on the financial statements. You are also responsible for informing us of your knowledge of any allegations of fraud or suspected fraud affecting the Company received in communications from employees, former employees, regulators, or others. In addition, you are responsible for identifying and ensuring that the entity complies with applicable laws and regulations.

In order for us to complete this engagement, and to do so efficiently, we require unrestricted access to the following documents and information concerning your company:

1. Copies of basic documents reflecting your financial transactions, including check stubs, summaries of cash receipts and sales (cash and charge), bank statements and canceled checks, listings of accounts receivable and accounts payable, and documentary support of property and equipment transactions-purchases, trades, sales, and other dispositions;

2. Information concerning any mortgage or pledge of business assets on business debts, any personal guarantees or debt, leases, or other information that effects or may affect the results of operations of the business;

3. Any other financial information necessary for purpose of reflection on your accounting records, trial balance and tax returns;

4. Identification of all cash receipts as to source (i.e., loans, sales, etc.), and information concerning all transactions that are consummated with cash.

Any failure to provide such documents and information, and to do so on a timely basis, will impede our services, and may require us to suspend our services or withdraw from the engagement. You agree to accept responsibility for any effect on your accounting records and financial statements of basic financial information or transaction documents not submitted to us for processing and entry, or losses that may result from their absence.

For purposes of entry of the financial information from your basic transaction documents, classification according to the agreed-upon chart of accounts will be

performed by you or your employees. As business conditions change, we may mutually agree to change/modify this arrangement.

Our fee for these services will be based upon the amount of time required at standard billing rates plus out-of-pocket expenses. A late payment charge of 1.5% percent per month will be assessed on any balance that remains unpaid after deduction of current payments, credits and allowances after 30 days from the date of billing. This is an annual percentage rate of 18%.

You may terminate your engagement of our services at any time. Should you do so, however, you remain liable for all unpaid fees as discussed above. We reserve the right to withdraw from this engagement at any time because of unpaid fees, the guidance of our Professional Standards, or for any other reason. We will notify you in advance of any decision by us to withdraw, and will take all reasonable steps to assist in the orderly transfer of your tax and accounting services.

In connection with this engagement, we may communicate with you or others via email transmission. As emails can be intercepted and read, disclosed, or otherwise used or communicated by an unintended third party, or may not be delivered to each of the parties to whom they are directed and only to such parties, we cannot guarantee or warrant that emails from us will be properly delivered and read only by the addressee. Therefore, we specifically disclaim and waive any liability or responsibility whatsoever for interception or unintentional disclosure of emails transmitted by us in connection with the performance of this engagement. In that regard, you agree that we shall have no liability for any loss or damage to any person or entity resulting from the use of email transmissions, including any consequential, incidental, direct, indirect, or special damages, such as loss of revenues or anticipated profits, or disclosure or communication of confidential or proprietary information.

It is our policy to retain engagement documentation for a period of seven years, after which time we will commence the process of destroying the contents of our engagement files. To the extent we accumulate any of your original records during the engagement those documents will be returned to you promptly upon completion of the engagement.

In the event we are required to respond to a subpoena, court order or other legal process for the production of documents and/or testimony relative to information we obtained and/or prepared during the course of this engagement, you agree to

compensate us at our standard hourly rates then existing for the time we expend in connection with such response, and to reimburse us for all of our out-of-pocket costs incurred in that regard.

In the event that we are or may be obligated to pay any cost, settlement, judgment, fine, penalty, or similar award or sanction as a result of a claim, investigation, or other proceeding instituted by any third party, and if such obligation is or may be a direct or

indirect result of any inaccurate or incomplete information that you provide to us during the course of this engagement, you agree to indemnify us, defend us, and hold us harmless as against such obligation.

Any litigation arising out of this engagement, except actions by us to enforce payment of our professional invoices, must be filed within one year from the accrual of the cause of action, notwithstanding any statutory provision to the contrary. In the event of litigation brought against us, any judgment you obtain shall be limited in amount, and shall not exceed the amount of the annual fee charged by us, and paid by you, for the services set forth in this engagement letter

This engagement letter is contractual in nature, and includes all of the relevant terms that will govern the engagement for which it has been prepared. The terms of this letter supersede any prior oral or written representations or commitments by or between the parties. Any material changes or additions to the terms set forth in this letter will only become effective if evidenced by a written amendment to this letter, signed by all of the parties.

If the foregoing fairly sets forth your understanding for our services, please sign the enclosed copy of this letter in the space indicated and return it to our office. The commencement of our services constitutes your acceptance of the terms of this letter, even if this engagement agreement is not signed.

We want to express our appreciation and thank you for this opportunity to work with you.

Sincerely,

GUSKE & COMPANY, INC.

Dean G. Guske, CPA

Accepted By: _____

Date: _____

indirect result of any inaccurate or incomplete information that you provide to us during the course of this engagement, you agree to indemnify us, defend us, and hold us harmless as against such obligation.

Any litigation arising out of this engagement, except actions by us to enforce payment of our professional invoices, must be filed within one year from the accrual of the cause of action, notwithstanding any statutory provision to the contrary. In the event of litigation brought against us, any judgment you obtain shall be limited in amount, and shall not exceed the amount of the annual fee charged by us, and paid by you, for the services set forth in this engagement letter

This engagement letter is contractual in nature, and includes all of the relevant terms that will govern the engagement for which it has been prepared. The terms of this letter supersede any prior oral or written representations or commitments by or between the parties. Any material changes or additions to the terms set forth in this letter will only become effective if evidenced by a written amendment to this letter, signed by all of the parties.

If the foregoing fairly sets forth your understanding for our services, please sign the enclosed copy of this letter in the space indicated and return it to our office. The commencement of our services constitutes your acceptance of the terms of this letter, even if this engagement agreement is not signed.

We want to express our appreciation and thank you for this opportunity to work with you.

Sincerely,

GUSKE & COMPANY, INC.

Dean G. Guske, CPA

Accepted By: _____ Manager, Hawaiian Ethos, LLC

Date: Dec. 15, 2015

Supremus Group LLC
855 SE Bell Ct, Suite 300
Waukee, IA 50263
Phone: (515) 865-4591
Tax ID: 55-0912916
Invoice Date:1/22/2016
Invoice number:20160122

Invoice

Invoice to

[redacted]

Invoice Order	Dated
email	1/22/2016

SKU	Product Description	Unit	MSRP Unit Price (USD)	Discounted Unit Price (USD)	Total Price (USD)
OCT_1_2	Online Classroom Training (OCT) Comprehensive HIPAA Security and Privacy (level 1 and 2)	1	$3,900.00	$3,200.00	$3,200.00
CHPSE_exam	CHPSE Exam & Practice Test	1			$279.00
OCT_1	Online Classroom Training (OCT) Comprehensive HIPAA Privacy (level 1)	2	$2,100.00	$1,800.00	$3,600.00
CHPE_exam	CHPE Exam & Practice Test	2			$225.00
HIPAA_Reference	Concise HIPAA Reference Book	11	$39.99	$19.99	$219.89
CHPA_Course	CHPA Online training with unlimited exam	8		$174.00	$1,392.00
HIPAA_Reference	Concise HIPAA Reference Book	11	$39.99	$19.99	$219.89
				Shipping Cost:	$50.00
				Sales Tax:(Iowa sales tax 6%)	$0.00
				Total Amount Due:	**$9,185.78**

Payment Terms: Immediate

1) HIPAA SECURITY CONTINGENCY PLAN TEMPLATE SUITE

Documents in HIPAA Contingency Plan Template Suite:

Sub Section: Conducting a Business Impact Analysis (BIA)

- Conducting a Business Impact Analysis (Guide) (23 pages)
- Long Version Business Impact Analysis Template (21 pages)
- Short Version Business Impact Analysis Template (6 pages)
- Applications and Data Criticality Analysis Template (24 pages)
- Final Business Unit Report Template includes following sub documents (8 pages)
- Department Financial Impact Chart Template (1 page)
- Department Operational Impact Chart Template (1 page)
- Department Legal/Regulatory Chart Template (1 page)
- Final Executive Management Report Template includes following sub documents (23 pages)
- Combined Financial Impact Chart Template (2 pages)
- Combined Operational Impact Chart Template (3 pages)
- Combined Legal/Regulatory Chart Template (1 page)
- Combined People Over Time Chart Template (3 pages)

Sub Section: Conducting a HIPAA Risk Assessment

- Conducting a Risk Assessment (Guide) (15 pages)
- Risk Assessment Template (17 pages)
- Risk Assessment Worksheet (14 pages)
- Executive Risk Assessment Findings Report (15 pages)
- Preventative Measures Examples (6 pages)
- Final Facility Risk Assessment Report (10 pages)
- Executive Report Charts Template (5 Charts) (5 pages)

Sub Section: Selecting and Implementing Recovery Strategies

- Implementing Recovery Strategies includes following sub documents (15 pages)
- Contingency Planning Process (8 pages)

Sub Section: Sample Documents

- Example of Completed Long Version BIA (24 pages)
- Example of Completed Short Version BIA (4 pages)

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- Example of Completed App & Data Criticality Analysis (39 pages)
- Example of Completed Business Unit Final Report (8 pages)
- Example of Charts to support Business Unit Final Report (3 Charts) (3 pages)
- Example of Completed Executive Management Report (40 pages)
- Example of Completed Risk Assessment (17 pages)
- Example of Completed Final Risk Assessment Report (16 pages)
- Example Completed Risk Assessment Worksheet (14 pages)

Sub Section: Contingency Program Policy & Standards

- Business Impact Analysis Policy includes following sub document (12 pages)
- Business Impact Analysis Standard (14 pages)
- Risk Assessment Policy includes following sub document (11 pages)
- Risk Assessment Standard (11 pages)
- Contingency Planning Policy includes following sub documents (10 pages)
- Disaster Recovery Planning Standard (69 pages)
- Emergency Mode Operation Plan Standards (14 pages)
- Business Resumption Planning Standards (20 pages)
- Testing and Revision Policy will includes following sub documents (17 pages)
- Testing & Revision Standards (14 pages)
- Data Backup Plan Policy Template will include following sub documents (15 pages)
- Data Backup Standard (8 pages)
- Training & Awareness Standard (7 pages)
- Instructions on how to update all standards (3 pages)

Sub Section: Appendix Documents (Help Guides / Templates)

- Types of Contingency Plans (9 pages)

Sub Section: Data Backup and Storage Plan

- Data Backup Plan (DBP) Template (18 pages)
- Data Backup Plan (DBP) development Guide (11 pages)

Sub Section: Disaster Recovery Plan

- Application Recovery Template (23 pages)
- Application Recovery Plan Development Guide (18 pages)
- Network Recovery Template (20 pages)
- Network Recovery Plan Development Guide (15 pages)
- Database Recovery Template (19 pages)

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- Database Recovery Plan Development Guide (16 pages)
- Server Recovery Template (19 pages)
- Server Recovery Plan Development Guide (15 pages)
- Telecommunications Recovery Template (19 pages)
- Telecom Recovery Plan Development Guide (17 pages)
- Disaster Recovery Plan Overview (38 pages)
- Disaster Recovery Plan Development Guide (17 pages)

Sub Section: Emergency Mode Operation Plan

- Dept. Business Resumption Plan Template (16 pages)
- Emergency Operation Plan (18 pages)
- Emergency Mode Operation Planning Standards (38 pages)
- Emergency Mode Operations Plan Development Guide (11 pages)

Sub Section: Testing And Revision Plan

- Testing and Revision Program including following sub documents (18 pages)
- Business Unit Test Plan (16 pages)
- Business Unit Test Plan Development Guide (10 pages)
- Technology Test Plan (18 pages)
- Technology Test Plan Development Guide (10 pages)
- Test Schedule (2 pages)
- Business Unit Plan Audit Checklist (6 pages)
- Application Plan Audit Checklist (7 pages)
- Database Plan Audit Checklist (6 pages)
- Disaster Recovery Audit Checklist (6 pages)
- Network Plan Audit Checklist (6 pages)
- Server Plan Audit Checklist (6 pages)
- Telecom Plan Audit Checklist (6 pages)
- Audit Notification Memo (1 page)
- Plan Audit Final Report Template (1 page)
- Test Notification Memo (1 page)
- Type of Tests (1 pages)

Sub Section: Sample Documents

- Example of Completed Data Backup Plan (18 pages)
- Example of Completed Disaster Recovery Plan (38 pages)
- Example of Completed Application Recovery Plan (23 pages)
- Example of Completed Emergency Mode Op Plan including following sub documents:
- Accounting EMOP (42 pages)
- BIOMED EMOP (37 pages)

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2) HIPAA SECURITY POLICY TEMPLATE SUITE

I. Policies on the Standards for Administrative Safeguards

- Breach Notification Policy
- Security Management Process
- Risk Analysis
- Risk Management
- Sanction Policy
- Information System Activity Review
- Assigned Security Responsibility
- Workforce Security
- Authorization and/or Supervision
- Workforce Clearance Procedure
- Termination Procedures
- Information Access Management
- Access Authorization
- Access Establishment and Modification
- Security Awareness & Training
- Security Reminders
- Protection from Malicious Software
- Log-in Monitoring
- Password Management
- Security Incident Procedures
- Response and Reporting
- Contingency Plan
- Data Backup Plan
- Disaster Recovery Plan
- Emergency Mode Operation Plan
- Testing and Revision Procedure
- Applications and Data Criticality Analysis
- Evaluation
- Business Associate Contracts and Other Arrangements
- Business Associate Agreement
- Execution of Business Associate Agreements with Contracts

II. Policies on the Standards for Physical Safeguards

- Facility Access Controls
- Contingency Operations
- Facility Security Plan
- Access Control and Validation Procedures
- Maintenance Records
- Workstation Use
- Workstation Security
- Device and Media Controls
- Disposal

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3) HIPAA PRIVACY POLICY TEMPLATE SUITE

The templates suite includes following HIPAA Privacy policies and procedures.

- Accept Access Request
- Accounting for Disclosures
- Acknowledgement of Receipt
- Amendment to Record Form
- Authorization for Release of Protected Health Information
- Authorization To Use Disclose Protected Health Information
- Business Associate Agreement
- Business Associate Contracts and Other Arrangements
- Complaint Process
- Data Use Agreement Template
- De-identified Information and Limited Data Sets
- Denial Access Request
- Denial Request to Amend Form
- Disclosure Accounting Log for Medical Information
- Disclosure of PHI with and without authorization Template
- Disclosures Record Form
- Document Retention Requirements
- EHR accounting of disclosures
- Employee Confidentiality Agreement
- Execution of Business Associate Agreements with Contracts
- Health Plan Notice of Privacy Practices
- HIPAA Accept Amend Request Form
- Identifying PHI and Designated Record Sets
- Minimum Necessary
- Multi-Organization Arrangements
- Notice of Privacy Practices
- Patient Right to Access PHI
- PHI Release by Whistleblowers
- Privacy Officer
- Receipt of Payment when Disclosing PHI
- Release for Abuse Neglect or Domestic Violence
- Release for Confidential Communications
- Release for Fundraising Purposes
- Release for Health Oversight
- Release for Judicial or Administrative Proceedings
- Release for Law Enforcement
- Release for Marketing Purposes
- Release for Public Health
- Release for Research Purposes
- Release for Specific Government Functions
- Release for Workers Compensation
- Release of Information for Deceased Patients or Plan Members
- Release of Information for Legal Representatives
- Release of Information to a Minor
- Release of Information to a Minor's Parents

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6) SMALL BUSINESS DISASTER RECOVERY PLAN AND BUSINESS CONTINUITY TEMPLATE SUITE

This template suite contains templates for:

1. Business Impact Analysis (BIA)
2. Risk Assessment
3. Data Backup and Storage Plan
4. Disaster Recovery Plan (DRP)
5. Business Continuity Plan (BCP)
6. BCP & DRP Policy and Standards
7. Recovery Strategies

Business Impact Analysis

- Enterprise Business Impact Analysis Survey - Short (15 pages)
- Example - BIA Survey Short Version (13 pages)
- Guide to Conducting a Business Impact Analysis (27 pages)

Department Recovery Plan

- Department Recovery Plan Template (28 pages)
- Guide to Documenting Department Continuity Plans (19 pages)
- Example Plans - Accounting Recovery Plan (27 pages)
- Example Plans - Corporate Communications Recovery Plan (25 pages)
- Example Plans - Human Resources Recovery Plan (26 pages)

Disaster (Technology) Recovery Plan

- Disaster Recovery Plan Template (47 pages)
- Example - Disaster Recovery Plan (42 pages)
- Guide to Documenting Disaster Recovery Plans (25 pages)

Data Backup Plan

- Data Backup Plan Template (18 pages)
- Data Backup Plan Development Guide (11 pages)
- Example Data Backup Plan (19 pages)

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Tel: 515-865-4591 email: Bob@training-hipaa.net

HELIX TCS

[redacted]

From: John DeLue, Director of Sales, Heli xTCS

Date: January 25, 2016

Subject: Proposal for transportation services

Dear [redacted]

Thank you for your interest in Helix TCS.

Helix is a company founded and run by highly experienced former law enforcement and military personnel. We founded Helix to provide clients with secure operating environments for their retail, grow, and transport activities. Our mission is to enable our clients to minimize risk while improving their operations. Please review our proposal, and call my cell (720-409-7172) anytime with questions.

Hawaii brings a unique set up challenges for transporting product and cash. Helix TCS would set up transportation sub-divisions on each island, which would be managed by one main headquarters on the big island.

All cash transports would require 2-man transport teams. Product runs without cash can typically be done with a 1-man transport. [redacted] Product deliveries are done at least twice/week, and more for a high volume store and is also dependent on vault storage at the dispensary. [redacted]

Local transports are defined as within 20 miles of the city center. Long distance transports fall outside that area. Helix can perform local transport your product and cash for [redacted]

Long distance transports would be performed on an hourly basis, with [redacted] Cash and product and be transported at the same time with no extra delivery costs incurred.

These prices are estimates only, and could change based on costs of labor, office space and vehicle costs.

HELIX TCS

HELIX TCS

Sincerely,

John DeLue,

Director of Sales

Helix TCS

Cell: 720-409-7172

See below for the bio's of our team.

Zachary L. Venegas

C.E.O./Owner

Zachary leads Helix TCS Group, with responsibilities that include being the C.E.O, day to day operations and strategic growth worldwide. Before joining Helix TCS, Zac led Spruce Investment Advisors' Strategic Advisory group closing a NAV of $500mm USD assets with responsibilities that include cooperate advisory. He was the co-founder and managing partner of Scimitar, a Dubai-based private equity and venture firm focused on Europe, Africa and the Middle East. At Scimitar Zachary drove the firm's deal sourcing, negotiations, fundraising, and macroeconomic and geopolitical analysis, leading investments across four continents and multiple industries. He represented Scimitar in numerous media appearances, including Bloomberg Television, CNBC, and Barron's.

In addition, he was the founder and CEO of Omega Strategic Services, a dynamic corporate/competitive intelligence and security advisory firm with operations in the Middle East and Africa that supported investors and corporations in creating successful operating environments. Earlier in his career, he worked at the JPMorgan Private Bank in Geneva, Switzerland focused on the Middle East, and went on to lead the bank's Bahrain office.

Zachary received his MBA from NYU's Stern School of Business and a BS in Classical Arabic and Portuguese Languages from the United States Military Academy, West Point. Prior to his business career, he served with distinction in the U.S. Army as an Infantry officer. He has lived throughout the Middle East, Asia, Europe, and Africa and speaks Arabic, French, Spanish, Portuguese, and Roman

HELIX TCS

HELIX TCS

Grant Whitus

National Trainer

Sergeant Grant Whitus is a 26-year veteran of a Colorado sheriff's office. He served 17 years on SWAT, the last seven as the Team Leader.

Grant is a certified Explosive Breacher and a Colorado POST Certified Instructor for the Law Enforcement Training Academy. He teaches Officer Survival, Building Searches, Rapid and Immediate Deployment (RAID), Single Officer Response (Lone Wolf), SWAT, Responding to In-Progress Calls, Law Enforcement Driving, Precision Immobilization Technique, Building Searches, Close Combat Techniques, Traffic Stops, and Civil Law for the Patrol Officer, as well as many other disciplines.

Grant attended Arapahoe and Red Rocks Community Colleges.

Grant has received 16 Medals, including five Medals for Valor, and is the most decorated employee the a sheriff's office. In 2002, Grant and his SWAT Team were honored as "Police Officer of the Year". Mr. Whitus leads Helix TCS as the V.P. of Operations and Training, with an additional 2 years' experience in the cannabis security arena.

Sgt. Grant Whitus

Grant was the Lead SWAT Team member during the Columbine High School shooting. He gave aid to the teacher who was shot and then was the first to enter the library and locate the shooters. Grant was also the Team Leader during the Bulldozer Incident in Granby, CO. Additionally, he was the Team Leader who devised and executed the explosive tactical plan for the Hostage Rescue at Platte Canyon High School in September 2006, the only one of its kind. Most recently, Grant was the Team Leader during an Officer Rescue where over thirty rounds were fired. The officer was rescued without injury while the suspect was shot by SWAT.

HELIX TCS

HELIX TCS

John DeLue

Director of Sales

Mr. DeLue leads Helix's national sales efforts by developing strong, trusted relationships with the most prominent players in the lawful cannabis industry. Not only does he bring extensive sales experience, Mr. DeLue brings 27 years of law enforcement experience to the table as well.

As a deputy at the Jefferson County Sheriff's Office, Mr. DeLue was instrumental in developing training procedures for new recruits, providing officer safety and operational guidance to ensure that new law enforcement officers were properly trained to provide the highest level of public service to the community.

In addition to being a field training instructor to new officers, Mr. DeLue was also involved in tactical police activities, being on the front lines in riot response operations in Denver and Boulder, Colorado. Mr. DeLue also served as a school resource officer, ensuring student safety and developing trusted relationships between students, school administrative staff and law enforcement.

Mr. DeLue's customer relationship, sales and law enforcement experience have enabled him to provide unique insights into the lawful cannabis industry and help shape best practices for new and existing businesses facing the particular local, state and federal regulation challenges. His leadership and public speaking talents have served Helix TCS well in creating positive relationships with clients, at professional business forums and in front of government regulatory authorities.

Sincerely,

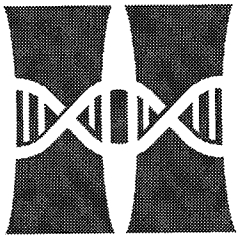
Zach Venegas

Cell: 720-662-4861

HELIX TCS

ABOUT TCS

Who is Helix TCS



HELIX TCS

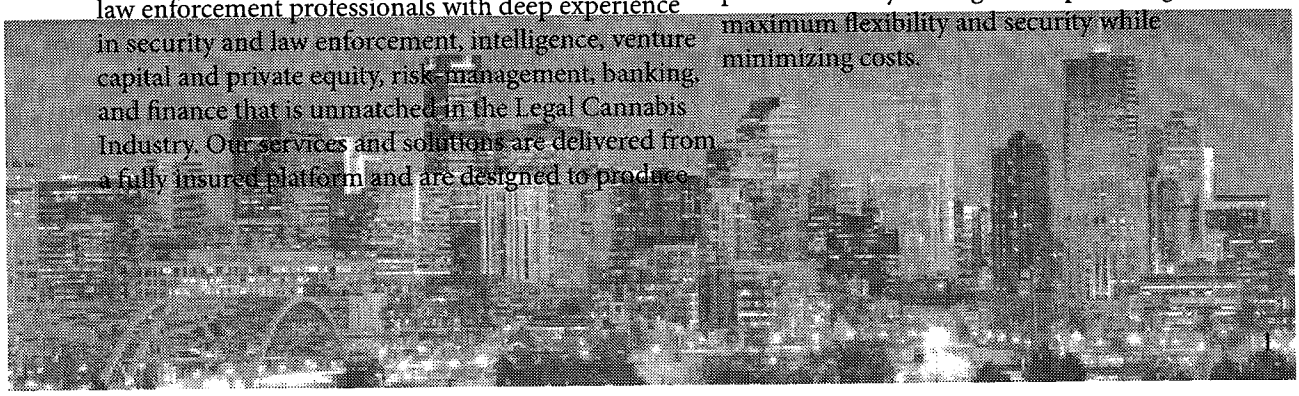
The rapid growth of the Legal Cannabis Industry has created powerful demand for adaptive systems that allow growers, dispensary owners, and other firms to manage their operating environments. Legal cannabis businesses must manage changing, and often conflicting, county, state, and federal regulations, while satisfying customers and fending off competitors. In such an environment, failure to recognize or manage key risks can result in the loss of a license, and thus destroy a business at the stroke of a pen. Helix TCS exists to safeguard clients against such risk.

Helix TCS's mission is to provide clients with integrated operating environment solutions, allowing our clients to manage risk and focus on their core business, thus making them more secure, competitive, and successful.

We accomplish this through a unique combination of business, logistics, risk-management, and investment skills, delivered through a proprietary software suite and partnership platform.

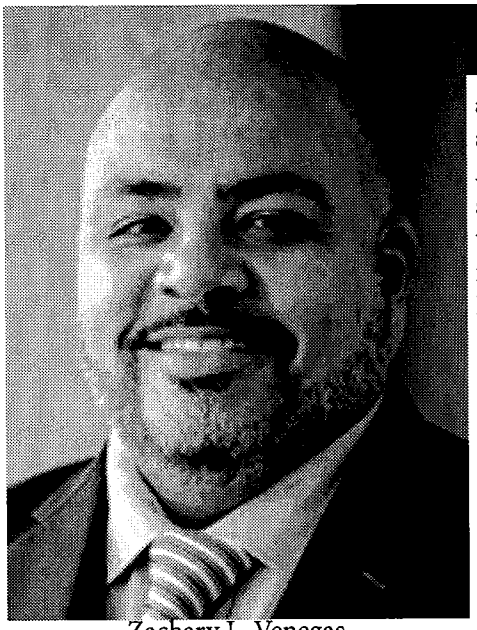
Our team is composed of former military and law enforcement professionals with deep experience in security and law enforcement, intelligence, venture capital and private equity, risk-management, banking, and finance that is unmatched in the Legal Cannabis Industry. Our services and solutions are delivered from a fully insured platform and are designed to produce the specific outcomes required by the client.

Helix TCS provides clients with comprehensive or a la carte solutions as required, and our software and technology platforms are system agnostic, providing maximum flexibility and security while minimizing costs.



ABOUT TCS

CEO



Zachary L. Venegas
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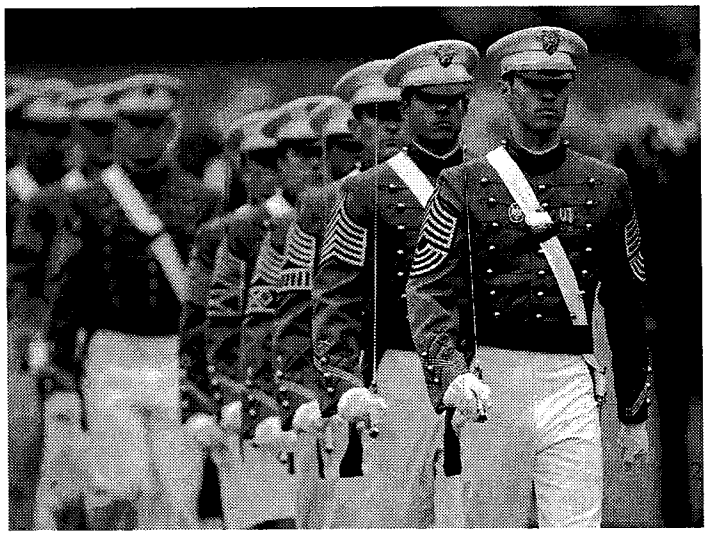

ABOUT TCS

Director of Operations

Grant Whitus
Vice President of Operations

Sergeant Grant Whitus is a 26-year veteran of a Colorado sheriff's office. He served 17 years on SWAT, the last seven as the Team Leader.

Grant is a certified Explosive Breacher and a Colorado POST Certified Instructor for the Law Enforcement Training Academy. He teaches Officer Survival, Building Searches, Rapid and Immediate Deployment (RAID), Single Officer Response (Lone Wolf), SWAT, Responding to In-Progress Calls, Law Enforcement Driving, Precision Immobilization Technique, Building Searches, Close Combat Techniques, Traffic Stops and Civil Law for the Patrol Officer, as well as many other disciplines.

Grant has led SWAT teams in some of the most significant tactical operations in the nation's history. He has received 16 Medals, including five Medals for Valor, and was the most decorated employee in the Jefferson County Sheriff's office. In 2002, Grant and his SWAT Team were honored as "Police Officer of the Year."

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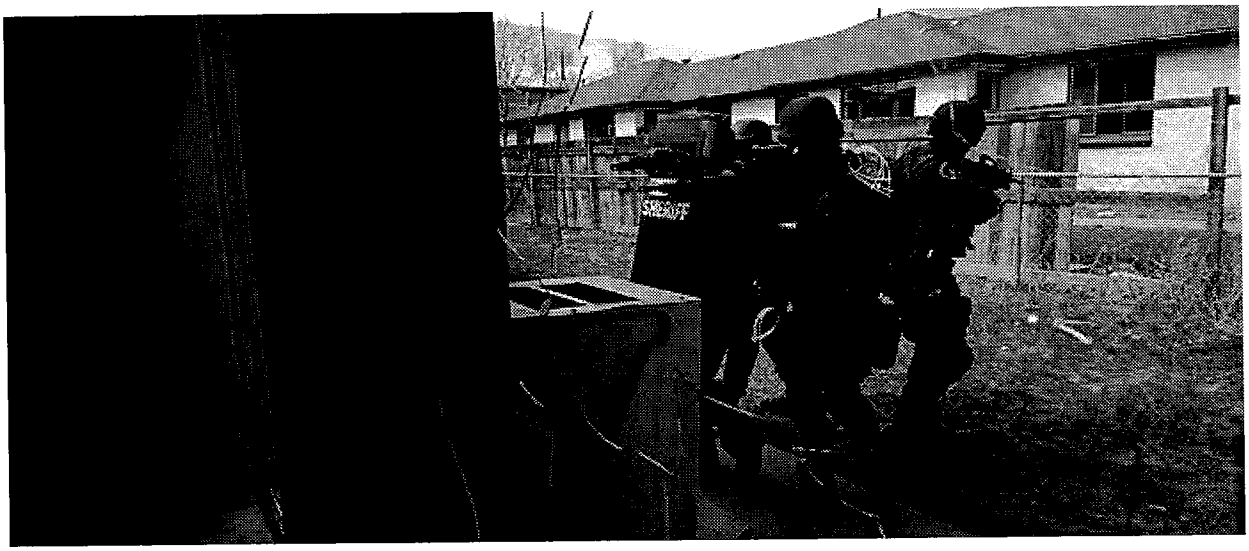
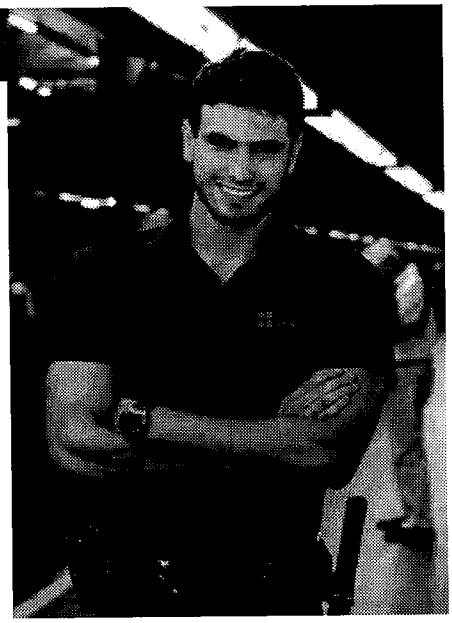


TCS

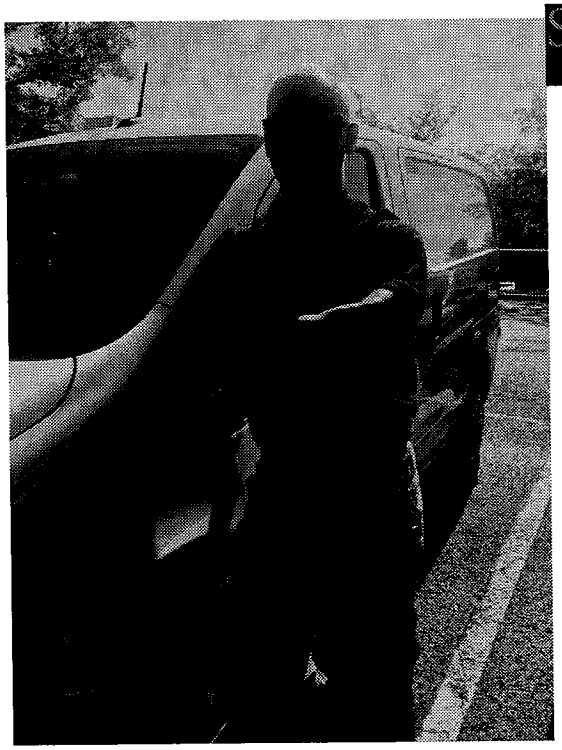
SERVICES

Armed/Unarmed Guard Services



Helix guards are comprised almost entirely of U.S. Military veterans and former law enforcement personnel. All Helix guards receive 40 hours of training before they are allowed to work.

- Accomplished, professional, courteous, and friendly
- Trained and proficient in local laws and city ordinances
- Expertly trained to respond to active shooter threats
- Schooled by former SWAT leaders and U.S. Military combat personnel
- Specialized, practiced, and highly skilled in hand-to-hand combat. Certified by law enforcement defensive tactics instructors; black belt Brazilian Jiu-Jitsu experts; and black belt Kung Fu San Soo instructors



Secure Transports

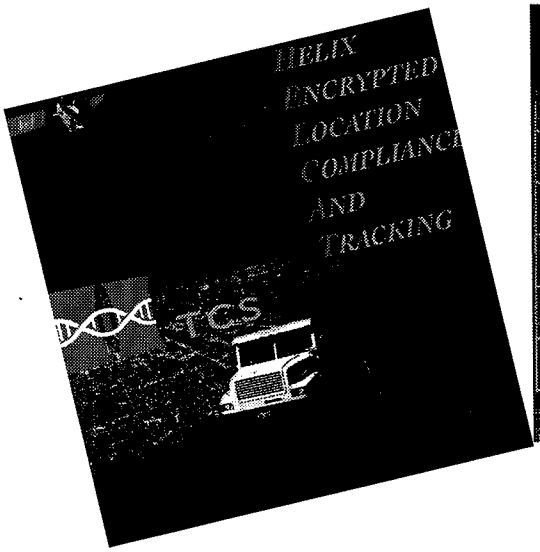
Helix can handle all of your transportation needs. We transport cash and all legal cannabis products.

What you get when you choose Helix for your transportation needs:

- All transports self-insured up to $100,000
- Transports are tracked via real time GPS satellite tracking
- All transport personnel are highly trained U.S. military veterans
- Personnel specially trained how to transport cannabis products according to the law
- All personnel trained how to handle all cannabis products

SERVICES

TCS

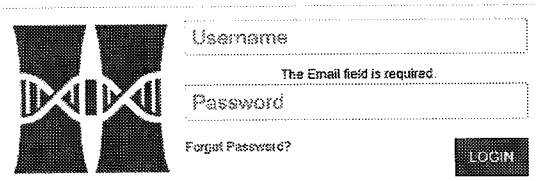


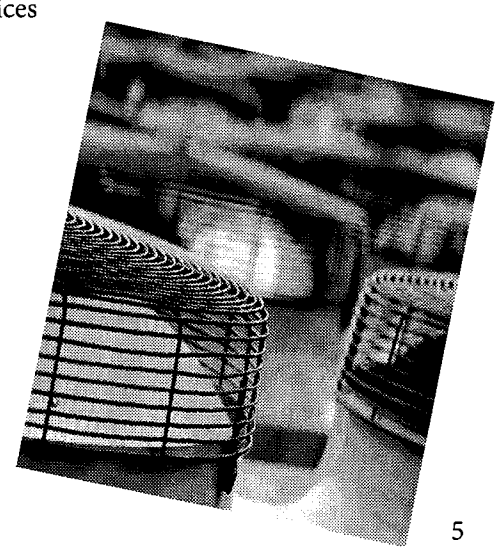
Additonal Services

You've come to your final one stop shop when it comes to securing your legal cannabis business. Helix has more to offer then just guard services and secure transports:

- Pharmaceutical laboratory grade HVAC systems
- State compliant security systems and cameras
- Helix Encrypted Location Compliance and Tracking (HELCAT) software suite which integrated with BioTrackTHC, banking compliance services, real time GPS satellite tracking and many more
- HR and PEO services
- Banking referrals

HELIX
TCS

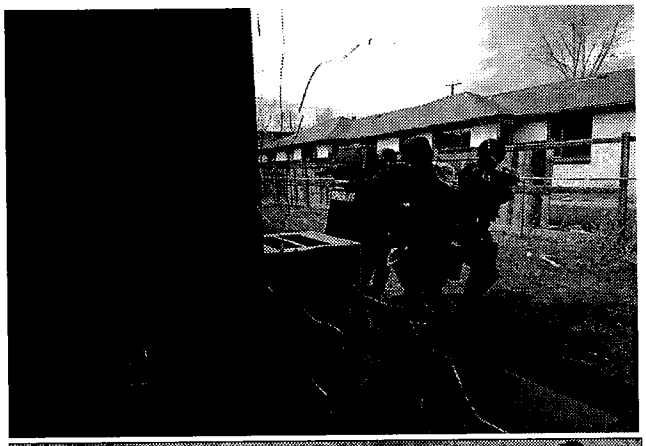


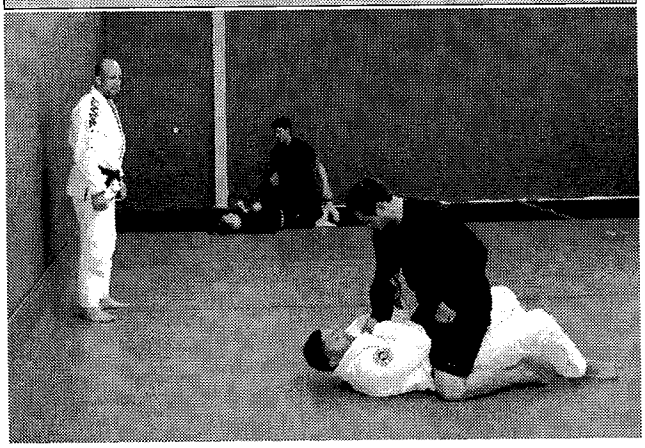


5

TCS TRAINING

Training That Is Second To None





Day 1
- About Helix TCS
- EEOC
- Employee Performance
- Issue Employee Equipment / Familiarization
- Transportation Familiarization / Operating Procedures
- State Marijuana Laws
- Importance of Ethics At Work
- Helix Technology Services (HELCAT)
- ID Verification

Day 2
- Close Quarter Battle - Classroom
- Writing Effective Reports
- Creating a Security Minded Business
- Customer Service
- Helix and Media
- Improving Effective Communication
- Knowing What a Crime Scene Is
- Executive Protection

Day 3
- NRA Basic Pistol Course
- Defensive Driving
- Vehicle Assaults
- Close Quarter Battle - Simunitions

Day 4
- Arrest Control
- Use of Force
- De-escalation of Force
- Contacting Suspects
- Impact Weapons
- Personal Weapons
- Live Fire at the Shooting Range

TCS

CONTACT US

www.HelixTCS.com

HELIX TCS

HELIX SALES TEAM

Contact:
John DeLue
Sales Director
jdelue@helixtcs.com
720-409-7172

Contact:
Andrew Ross
Sales Director
aross@helixtcs.com
720-486-7693

Find Us On Social Media!

instagram.com/helixtcs/

plus.google.com/u/2/111426111591654449305

twitter.com/Helix_TCS

facebook.com/HelixUSA

7

LETTER OF INTENT

John DeLue
Director of Sales
Helix TCS
4950 S Yosemite ST, Suite F2-220
Greenwood Village, CO 80111

January 25,2016

[redacted]

Dear [redacted]

This letter of intent will establish the basic framework for an agreement between La'au Pono Inc. (" La'au Pono Inc.") and Helix TCS (**"Helix TCS"**) relating to the security and transportation of cash and marijuana and marijuana related products in the state of Hawaii.

La'au Pono Inc. will utilize Helix TCS or its certified partner for the transportation of all cash and marijuana and marijuana related products for its cultivation and dispensary operations in the state of Hawaii. Helix TCS will utilize its expertise in fully compliant third party transportation, and will utilize its logistics software known as Helix Encrypted Location Compliance And Tracking, "Helcat" to provide third party verification and compliance of all Hawaii regulations when handling all marijuana and marijuana related products and cash.

The letter of intent is conditional on La'au Pono Inc. becoming a licensed cultivation and dispensary provider in the State of Hawaii, and Helix TCS or its certified partner becoming licensed in Hawaii as required by state law.

This letter of intent is no binding agreement from Helix TCS. Any services provided by Helix TCS will need to be negotiated and executed through a formal contractual agreement.

HELIX TCS

Helix TCS

John DeLue

Director of Sales

Jan 26, 2016

La'au Pono Inc.

[redacted]

HELIX TCS

HawaiianEthos

Strategic Advisors

STACEY MARIE KERR MD
3344 Cypress Way
Santa Rosa, CA 95405
707-526-2540
drkerr@smkerr.com
January 10, 2016

Education:

1989-1992:	Family Practice Residency, Community Hospital, Santa Rosa, CA
1985-1989:	University of California Davis (UCD), School of Medicine M.D.
1967-1971:	University of Missouri, Columbia, Missouri B.S., Education/Special Education
1967	Punahou Academy, Honolulu, Hawaii High School Degree

Current Licensure:

CA physician/surgeon license # GFE69395, 1990-current

Board Certification:

American Board of Family Practice, 1992-2006

Professional Work Experience:

2011 – 2015

Treasurer/Educator/Executive Board Member – Society of Cannabis Clinicians. Managed finances and legal filings for the nonprofit organization, dedicated to research and education about cannabis as medicine.

Co-created a 12 unit CME program to educate health care professionals on the endocannabinoid system and the clinical uses of cannabinoids in practice. (http://themedicalcannabisinstitute.org/course/clinical-cannabinoid-medicine-curriculum)

2005 – current

Medical Director – Sonoma County Breastfeeding Coalition

2004-2011

Medical columnist, Santa Rosa Press Democrat, a New York

Times owned newspaper

1998-2004: Family Physician, independent private solo practice, family medicine and obstetrics, Santa Rosa, CA

1992-1999 Assistant Clinical Professor, Family Practice residency program associated with University of California San Francisco, School of Medicine, Department of Family and Community Medicine, Santa Rosa, CA.

1992-1998: Family Physician, independent private practice with three associates, practicing family medicine and obstetrics, Santa Rosa, CA

Honors and Awards:

Outstanding Freshman Chemistry Student, CSUS, 1983-1984
President, UCD Medical School, Class of 1989
Merck Company Foundation Medical School Scholarship, 1986-1987
Ruth G. White Scholarship (PEO), 1987-1989
MacKenzie Scholarship, 1987-1989
Award for Excellence in Family Practice, Graduating Class of 1989, UCD Medical School
American Academy of Family Physicians Certificate of Recognition for Support of Medical Student Interest in Family Practice, 1989
Mead Johnson Award for Excellence in Graduate Education in Family Practice, 1991
Sonoma County Medical Association award for Outstanding Contribution to the Community, 2010

Activities:

UCD Family Practice Pathway, member, 1985-89
UCD Family Practice Steering Committee, member, 1985-89
Assisted in organizing and planning three statewide conferences:
*Serving the Medically Underserved, 1986
*California Student Association of Family Physicians (CSAFP) Annual Conference, 1986
*Relationships for People in the Medical Professions, 1988
CSAFP, member, 1985-89
CSAFP, newsletter editor, 1985-86
California Academy of Family Physicians (CAFP), Board of Directors, student voting member, 1987-89
CAFP, Board of Directors, resident voting member, 1990-1992

CAFP Committee on Resident and Student Affairs, member, 1987-89
Survival Skills Group, UCD Medical School, facilitator, 1987
Admissions Committee, UCD School of Medicine, student interviewer 1987-1988
Family Practice Resident's Association of California (FAMPRAC) member and treasurer, 1989-1990
FAMPRAC, organizing yearly conference, 1990
Community Hospital Association of Resident Physicians (CHARP), Chief negotiator with County of Sonoma for contract negotiations, 1989-1990
CHARP, treasurer, 1990-1992
CAFP, member, 1985-present
American Academy of Family Physicians, member, 1985-present
Sonoma County Medical Association, member, 1992-2008
California Medical Association, member, 1992-2008
CAFP, Scientific Program Committee, active member, 1993
CAFP, Public Outreach Committee, active member, 1994
CAFP, Public Outreach Committee, chair, 1995-96
SCMA, Editorial Board member, 1997-2008
CAFP, Technology Committee member, 2000-2002
Sutter Medical Center of Santa Rosa, Interdisciplinary Practices Committee Chair, 2001-2003
Board member: Better Beginnings, a nonprofit organization for better birth practice, 2008-2010
Guest lecturer, Santa Rosa Family Practice Residency Program, 2009
Medical Director & Communications Director: Sonoma County Breastfeeding Coalition, 2004-current
Academy of Breastfeeding Medicine, Member, 2009-current

Speaking Engagements & Lectures:

Birth: Age-Old New Perspectives –
Regional Association of Childbirth Educators, keynote speaker
Annual Conference, Seattle, WA
March, 2012

Homebirth in the Hospital – BirthMattersVirginia, keynote speaker
Annual Awards Event, Richmond, Virginia
November, 2010

How to Treat a Laboring Woman – Mother Nature and Medicine
Institute for Women's Health, Virginia Commonwealth University
Richmond, Virginia
November 2010

Homebirth in the Hospital – Why Do We Need It?
Virginia Commonwealth University, Dept of OB/GYN

Richmond, Virginia
November, 2010

Vitamin D – The Sunshine Steroid – Speaker
California Medical Assistants Association Fall Conference
Santa Rosa, CA, September 11, 2009

Controversies in Childbirth – Speaker
Homebirth in the Hospital – The Possibilities
Ft. Worth Convention Center, March 2009

Evidence-Based Maternity Care – Resident Lectures
Santa Rosa Family Practice Residency, 2009

Migraines: Taking Control
Sponsored by GlaxoWellcome, September, 1999

The OB/GYN history & physical
Contraception; an overview
Normal Labor and Delivery
Touro University, College of Osteopathic Medicine
Mare Island - Vallejo, CA
Guest faculty lectures, 1999

Oral Contraceptives, a lecture for midlevel practitioners
Sponsored by Wyeth-Ayerst, September, 1998

Alternative Medicine, An Overview
California Academy of Family Physicians, Speaker
General Scientific Assembly, San Francisco, 1997

Publications:

The Doctor's Inn, Webmaster and host, 1998-2010
www.the-doctors-inn.com (website retired in 2010)

Homebirth in the Hospital – Integrating Natural Childbirth with Modern Medicine
Sentient Publications; 176 pages
November, 2008

Monthly Medical Columns
Santa Rosa Press Democrat Newspaper
2006-2011

Keeping the Fire Alive
A Piece of My Mind
Journal of the American Medical Association (JAMA)
April 21, 2004

Teaching Children Responsibility
Sonoma Medicine, Summer 2003

Editorial: The Importance of Well Being
Cover photograph
Sonoma Medicine, Spring 2003

Medicine and War – On The Front Lines
Sonoma Medicine, Winter 2002

Incorporating E-mail into Daily Practice
California Family Physician, Summer 2001

Consulting Online at The Doctor's Inn
Sonoma Medicine, Fall 2000

Gazing into The Future
Cover photograph
Sonoma County Physician, Nov/Dec 1999

Teenage Sexuality for Adults
Sonoma County Physician, May/June 1999

Editorial: Helping the Medically Underserved
Sonoma County Physician, November/December 1998

What Impact Will the Internet Have on The Physician-Patient Relationship?
Group Practice Data Management, Fall 1998

Editorial: The Healing Power of Faith
Sonoma County Physician, November/December 1997

Communicating With Patients On-Line
Sonoma County Physician, January/February 1996

Beginning Computer Literacy
California Family Physician, September/October 1995

Stacey M Kerr M.D.
3344 Cypress Way
Santa Rosa CA 95405
707-526-2540
drkerr@smkerr.com

January 21, 2016

To: Application Review Personnel – Hawaii DOH

First and foremost, this letter is being provided to show my support for Hawaiian Ethos in their endeavor to ensure qualifying Hawai'i Island residents access to evidence based treatment choices for medical grade cannabinoids.

I have discussed Hawaiian Ethos' objectives and I wholeheartedly agree with the mission to provide safe access to high quality medical cannabis to patients living on Hawai'i Island. I am providing this document as a formal and public demonstration of our pending collaboration and of my intention to provide advisory support to Hawaiian Ethos.

I am a Board eligible family physician with many years' experience in the field of medical cannabis research and education. In my clinical practice I have seen the clear benefits of appropriately recommended medical cannabis. For over five years I served on the Executive Board of the Society of Cannabis Clinicians with the goal to learn about and educate others regarding cannabis as medicine. I co-created an online 12 unit continuing education course on clinical cannabinoid medicine (http://cannabisclinicians.org/medical-cannabis-continuing-education-cme-course/). This course was the first of its kind and has been accessed by over 250 health care providers. My interests continue to lie in the field of research and education so more patients may safely benefit from the appropriate use of cannabinoids.

Based on my experience in the medical cannabis field, I see great potential in the work that Hawaiian Ethos is planning. Their goal to gather information from dispensary patients to create a database on effective cannabinoid ratios, side effects, and condition-specific recommendations is completely aligned with my own professional interests. By collaborating with the Hawaiian Ethos community I hope to meaningfully impact the lives of patients living in Hawai'i.

Having graduated from Punahou Academy, with family still living in the islands, I have a personal interest and connection to the Hawaiian Islands. I look forward to serving.

If you have any questions about my practice or this agreement, please feel free to contact me as above.

Sincerely,

Stacey Marie Kerr, MD

Fred Floyd, RPh

(209) 662-5486

fredfloyd@rockmail.com

- 30 years experience in a variety of secure dispensary settings including hospital, nuclear and penal institution pharmacies
- Pharmacist Licensure: OR, CA, AZ, NV, MT, ID, WA

PROFESSIONAL EXPERIENCE

4/07 – 2014 Soliant Health, Inc.

Completed numerous 13 week contract assignments in inpatient and outpatient hospital settings throughout California (RPH Lic. 51625)

6/04 – 10/06

Managed or staffed pharmacies in California correctional institutions, including California Correctional Center, Susanville, CA, Solano State Prison, Vacaville, CA, Mule Creek State Prison, Ione, CA,

2/00 – 1/03 Staff Pharmacist, Smiths Food and Drug, Elko, NV

7/97 – 12/99 Staff Pharmacist, Oregon Central Pharmacy, Eugene, OR

Pharmacy was certified as user of radioactive medications and I was pharmacy's chief radiation officer responsible for safety and liaison with regulatory agencies

6/90 – 6/95 Staff Pharmacist, St. Patrick Hospital, Missoula, MT

6/85 – 6/90 Staff Pharmacist, Missoula Community Hospital

EDUCATION

1968 – University of Montana, Bachelor of Science Pharmacy, Missoula, MT

Khalil Moutawakkil

KindPeoples Collective

3600 Soquel Drive

Santa Cruz, Ca 95062

(831) 471-8562

To: Hawaii Department of Health,

I am writing this letter to serve as a formal intention to provide advisory support to Hawaiian Ethos for its two proposed dispensary locations. Zachary Taffany, Chris Whidden, and I have discussed Hawaiian Ethos' objectives and mission to provide safe access to high quality medical marijuana to patients living on Hawai'i Island. We have defined terms for an agreement regarding my commitment to an advisory role. I am confident in providing this document as a public demonstration of our collaboration and my intention to provide advisory support to the organization.

Over the past 14 years, I have worked extensively in various sectors of the cannabis industry in California, including production, manufacturing, government relations and dispensary operations. I am the co-founder and president of KindPeoples, a professional cannabis organization with production and manufacturing facilities, as well as two storefront dispensaries in Santa Cruz, California. Our operations consist of 60 employees and are one of the few cannabis businesses in California to be locally permitted and in compliance with California State guidelines. Currently, my top responsibility is to provide consistent, reliable access to lab tested medicine to over 21,000 cannabis patients.

My passion is for engaging with the local community and forging strong relationships with local policy makers and enforcement agencies. I have been a passionate advocate and speaker for safe patient access for the past decade and have served on the board of directors of the Association for Standardized Cannabis (ASC) since 2012. The ASC works to educate the public and government on medical cannabis and cannabis businesses best practices. ASC has been instrumental in developing policy for several south bay area cities including Santa Cruz.

I have worked with numerous California municipalities to help secure permits for compliant cannabis businesses serving medical patients. I will provide broad oversight to Hawaiian Ethos dispensary location managers, which includes measuring the overall effectiveness of the dispensary sites with respect to their ability to provide safe access to patients. Hawaiian Ethos will also rely on Khalil to see that the organization is thriving and constantly improving. I will provide guidance on workflow, patient experience optimization, as well as best practices for policies, procedures, and guidelines that will keep the facility running smoothly.

Based on my experience in the Medical Marijuana industry, I see great potential in the work that Hawaiian Ethos is planning. By collaborating with the Hawaiian Ethos community I hope to meaningfully impact the lives of patients living in Hawai'i.

If you have any questions about our agreement, feel free to contact me directly at (831) 332-7155.

Thank you,

Sincerely,

Khalil Moutawakkil

Collaboration between Khalil Moutawakkil & Hawaiian Ethos LLC.

In exchange for future advisory support from Khalil Moutawakkil, Hawaiian Ethos LLC. would like to provide, in advance consideration for Mr. Moutawakkil's support a sum of [redacted] as show of good faith and intention to collaborate.

In the event and only in the event that Hawaiian Ethos receives a license to cultivate and dispense medical marijuana from the State of Hawaii Department Of Health, Mr. Moutawakkil agrees to provide advisory support to Hawaiian Ethos on matters related to dispensary operations.

Advisory support may take place in person or via phone and at Mr. Moutawakkil discretion. The extent (including time allocated, service commitments, and availability) to which Mr. Moutawakkil will provide advisory support to Hawaiian Ethos may be entirely determined by Mr. Moutawakkil.

The term of this commitment will not exceed one-year, and will begin on the date that licensure is awarded.

It is understood that this agreement may be a precursor to future agreements, which Mr. Moutawakkil may enter into with Hawaiian Ethos LLC. for the purposes of establishing a more involved collaboration and in exchange for additional consideration.

[redacted]

Khalil Moutawakkil

_____ Date, 1/24/16

Hawaiian**Ethos**

Research Endeavors

Hawaiian Ethos Research Endeavors

Introduction: Why we feel Medical Marijuana research is important

Medical marijuana is well-known for its "entourage" characteristics. These are interactions between agonist and antagonists compounds in the botanical preparation. This is evident when examining the tens of cannabinoids, delta-9 tetra hydro cannabinol (THC), being the most prominent for its psychoactive properties, the hundreds of terpenes (mostly associated with fragrances, but also have significant medicinal value), and the hundreds of flavonoids (mostly anti-oxidants) known and unknown in medical marijuana.

While high THC marijuana lends itself to body or mental or sometimes both body and mental "highs" (euphoria), this is reshaped when marijuana contains other cannabinoids like cannabidiol (CBD). CBD is known to attenuate THC's psycho activity. Biochemically we can view THC is an agonist and CBD an antagonist when measuring marijuana's "high." In most cases the THC:CBD ratios between marijuana strains and products affects the outcome of the drug experience.

Patients with different symptoms, e.g., pain in its many forms, nausea, depression, anxiety, respond differently when using marijuana strains with different cannabinoid content. It's not all about the "high" (euphoria). In fact, marijuana with little or no THC (less than 0.3% THC), but high CBD is effective in minimizing spasticity (especially in multiple sclerosis (MS) patients) and significantly reducing epileptic seizures, with no psycho active effects. As relevant is current dosage for MS patients is 20 mg CBD, while Dravet's Epileptic children sometimes require 200 mg CBD.

Most veterans suffering from Post Traumatic Stress Syndrome (PTSD) use one strain of medical marijuana in the morning to help them function during the day; and a second strain at night to help relax and sleep and minimize their nightmares. This drug protocol was developed by the veterans themselves by trial and error.

Objectives: The kinds of research we intend to conduct

Our objective is to capture these drug experiences and to record and share outcomes with prescribing physicians and patients. Traditional drug discovery approaches separate and purify compounds to simplify investigation and research and development. This is not amenable with medical marijuana because it consists of interacting compounds. Further, marijuana's effects, the medicinal outcomes, are complex and differ between individual patients.

With complex botanical preparations and complex patient outcomes, we can't easily condense causative outcomes. We may be consoled no one has died from a marijuana overdose, but this hardly diminishes other possible physical and mental consequences.

This is why we monitor marijuana drug effectiveness. What is the desired outcome and rationale for individual patient's marijuana prescription? Whether the patient is a first time user or a long-time use veteran is important, because this affects dosage and delivery parameters. What are appropriate and inappropriate side-effects? What is the efficacy of the drug experience on the patient's prescribed syndromes?

Data collection: How we plan to collect information

Data collection is required by the state seed to sale software. Patient and physician information is included. Our intent is to capture and monitor additional information, which can be shared with patient and physician and (with permission) other patients and physicians.

Physician-derived questions specific to each condition permitted by the state for marijuana prescription will be developed by our Medical Advisory Board. In addition, marijuana use information including strain chemotypes, dosage, and delivery means can be monitored. This information will be asked and answered by participating individual patients (volunteers). Minimally we provide communication between individual patients and their prescribing physician.

The long view is collecting enough data to statistically analyze drug efficacy (if any). We intend to collaborate with research organizations to correlate chemistries and manufacturing and processing methodologies and symptom outcome. We want input from any and all organizations desiring to participate in formulating feedback and questions to assist individual patient symptom management.

We want to monitor our own efficacy providing consistent quality medicines to our patients. This means more than monitoring chemotype profiles. It means monitoring patient outcome. Working with botanical preparations is not easy compared with pharmaceutical single compound drugs; but this is where we start because single drug approaches have stumbled.

HawaiianEthos

Letters of Support

1050 ALA MOANA BOULEVARD, SUITE 2550
HONOLULU, HAWAII 96814
(808) 528-3058 PHONE
(866) 846-8078 FAX

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EXECUTIVE DIRECTOR
Kathleen Stofocik

January 15, 2016

Dr. Virginia Pressler
Department of Health
State of Hawaii
1250 Punchbowl Street
Honolulu, HI 96813-2416

Dear Dr. Virginia Pressler,

The purpose of this letter is to support the application by Hawaiian Ethos, LLC. for one of two medical marijuana dispensary licenses on Hawaii Island.

Epilepsy is the 4th most common neurological condition after migraines, stroke, and Alzheimer's disease. Epilepsy is more prevalent than autism spectrum disorders, Parkinson's disease, multiple sclerosis, and cerebral palsy combined. There are over 15,000 individuals living with epilepsy in the State of Hawaii and not all individuals can control their seizure activity through routine drug therapies. Therefore, the Epilepsy Foundation of Hawaii (EFH) supports Act 241 and understands the need for alternative therapies as options for individuals living with epilepsy who have not been able to reduce seizure activity through routine drug therapies.

From our conversations, Hawaiian Ethos, LLC. has committed to providing patients with top quality medical grade cannabis and will meet the State's 6 point requirements for testing. Hawaiian Ethos, LLC. will also stock marijuana that is cannabidiol rich and low in THC which will benefit individuals living with epilepsy. We believe in the mission of Hawaiian Ethos, LLC. and embrace the idea of joining with Hawaiian Ethos, LLC. to collect and analyze data on how effective medical marijuana is in benefiting patients, how their conditions have progressed and how their seizures have been mitigated.

The Epilepsy Foundation of Hawaii (EFH) would like to work with Hawaiian Ethos, LLC. to conduct research on the medicinal benefits of marijuana, to educate the public and medical professionals on the beneficial effects of medical marijuana and to create a program for financial assistance for patients to obtain medical marijuana who currently cannot afford it. Hawaiian Ethos, LLC.'s commitment to high quality medical grade marijuana, research on medicinal benefits of marijuana and commitment to donations for EFH's programs and services, makes Hawaiian Ethos, LLC. worthy of the receipt of one of the two licenses on Hawaii Island.

The Epilepsy Foundation of Hawaii is dedicated to stopping seizures, finding a cure and helping individuals in overcoming the challenges created by epilepsy, and we believe a relationship with Hawaiian Ethos, LLC. may further that mission.

The mission of the Epilepsy Foundation of Hawaii is: To stop seizures and Sudden Unexpected Death in Epilepsy (SUDEP), find a cure and overcome the challenges created by epilepsy through efforts including education, advocacy and research to accelerate ideas into therapies.
The Epilepsy Foundation of Hawaii is an affiliate of the Epilepsy Foundation of America. It is a Hawaii nonprofit organization and a 501(c)(3) organization. Federal ID: 23-7216782.

1050 ALA MOANA BOULEVARD, SUITE 2550
HONOLULU, HAWAII 96814
(808) 528-3058 PHONE
(866) 846-8078 FAX

Sincerely,

Kathleen Stofocik

Kathleen Stofocik, MPH, CHES
Executive Director

The mission of the Epilepsy Foundation of Hawaii is: To stop seizures and Sudden Unexpected Death in Epilepsy (SUDEP), find a cure and overcome the challenges created by epilepsy through efforts including education, advocacy and research to accelerate ideas into therapies.
The Epilepsy Foundation of Hawaii is an affiliate of the Epilepsy Foundation of America. It is a Hawaii nonprofit organization and a 501(c)(3) organization. Federal ID: 23-7216782.

Letter of Support for a Medical Marijuana License for Hawaiian Ethos, LLC

January 22, 2016

Dr. Virginia Pressler
Department of Health
State of Hawaii
1250 Punchbowl Street
Honolulu, Hawaii 96813-2416

Dear Dr. Pressler,

The purpose of this letter is to support Hawaiian Ethos, LLC in its application for a medical marijuana license under Act 241 of the Hawaii State Legislature.

It is time to reduce suffering and offer medical marijuana as an alternative treatment for a variety of ailments. Medical marijuana can help those who have complex diseases such as cancer, glaucoma, positive status for human immunodeficiency virus, acquired immune deficiency syndrome, or the treatment of these conditions; cachexia or wasting syndrome, severe pain, severe nausea, seizures, including those characteristic of epilepsy, severe and persistent muscle spasms, including those characteristic of multiple sclerosis or Crohn's disease; or post-traumatic stress disorder. Medical marijuana is also effective for pain relief due to arthritis and insomnia. However, suppliers of medical marijuana should be credible and serious in the preparation of such medications for the health and wellbeing of our citizens. The owners of Hawaiian Ethos ,LLC. combined with the company's mission and vision suggests that they have the credibility to undertake such an endeavor.

As a medical professional and a long-time Hospice volunteer, I am aware of the suffering associated with the ailments listed above. Rigorous scientific studies have shown that cannabinoids can be effective in the treatment of patients with these conditions. The focus of Hawaiian Ethos on the science of the use of cannabinoids as medications makes this organization worthy of the receipt of one of the two licenses for Big Island.

Thank you for your time.

Aloha,

Linda Clifford

Linda Clifford

Hope all is well with you, Ginny :)

Section Two Response

Hawaiian Ethos is committed to providing the qualifying residents of Hawai'i county safe access to medical marijuana in a timely and professional manner. In order to ensure the best possible outcomes for patients, great care has been taken to design comprehensive plans for Hawaiian Ethos' two dispensary locations and cultivation center. The planning materials describe every aspect of the businesses activities, including operational plans for all locations, employee manuals and training resources, timelines for opening the cultivation center and dispensary locations, descriptions of strategic business partners, and detailed financial projections. All policies and practices for Hawaiian Ethos and its cultivation subcontractor La'au Pono have been designed to specifically comply with the rules set forth in DOH rules Chapter 11-850 as well as all local and state laws governing the operation of a licensed business entity.

Essential Organizations: The applying entity, Hawaiian Ethos, will operate and manage all business functions related to its two dispensary locations. Dispensary operations will include: maintaining dispensary sites, interfacing with patients, providing educational materials, complying with all safety & security requirements, maintaining a public website, managing the company's exclusive mobile phone application, and ultimately facilitating the sale of cannabis-based medicines to qualifying patients. Hawaiian Ethos will rely on its exclusive subcontract with La'au Pono for the cultivation, extraction, manufacturing, packaging, and transportation of all medical marijuana and medical marijuana products to be sold at Hawaiian Ethos dispensaries. La'au Pono will also be contractually responsible for complying with all safety and security requirements, which include laboratory testing and all other rules set forth in DOH Rules Chapter 11-850 (See Appendix Pg 4 Organizational Chart, Pg 5-14 agreement between the entities).

Dispensary Operations Plan: Hawaiian Ethos has created a specific plan for managing its dispensaries in such a way that upholds the rules set for in DOH rules Chapter 11-850 and optimally serves the essential needs of local qualifying patients. The plan includes: policies and procedures and employee manuals for all activities taking place at the dispensary, employee position descriptions, training requirements, hours and days of operation, and daily workflow. The dispensaries will be open 6 days a week and will provide phone support for orders for easy pickup at the dispensaries. (See Appendix Dispensary Operations Plan Pg 15-49) (Dispensary Employee Manual Pg 50-112)

Cultivation Operations Plan: Operating the cultivation center will require careful management and detailed planning. In collaboration with Hawaiian Ethos, La'au Pono has created an operations plan and an employee manual, which describe the organization's essential responsibilities and precise processes for managing the center, which includes plant propagation, vegetation, and flowering of medical marijuana. (See Appendix Pg 113-222 Operations Plan and Cultivation site employee manual)

Timeline For Opening the Dispensary: Hawaiian Ethos has documented the entire schedule for the roll out of the dispensaries and cultivation center in a visual (Gantt-style) calendar chart. The chart shows the timeline for opening and also key dependencies, which need to be satisfied in order to open according to schedule. (See Addenda Gantt Chart Pg 293-295)

La'au Pono Timelines & Phases: The timelines leading up to the opening of the dispensaries are broken into multiple phases, which will span from April 15 to August 15th, when the dispensaries will be scheduled to open to qualifying patients. As an exclusive subcontractor working under the licensure of Hawaiian Ethos, La'au Pono will construct facilities for the cultivation and manufacturing of medical marijuana and medical marijuana

products. The facilities will be constructed in two phases. In the first phase, a conservative interim facility will be built quickly in order to allow cultivators to begin growing under an accelerated timeline—this will allow La'au Pono to begin supplying Hawaiian Ethos dispensaries medical marijuana by August 15th. On May 1st La'au Pono will begin construction of the permanent [redacted] square-foot) cultivation and manufacturing facility, which will be completed on August 1st. The first manufactured medical marijuana products will ready to transport to Hawaiian Ethos dispensaries on November 7th. (See Appendix Interim Cultivation Facility Pg 296-348 and Appendix Permanent Cultivation Facility Pg 349-414)

Dispensary Locations: Hawaiian Ethos has chosen two primary dispensary sites and also a two additional contingency sites to be used in the event that either of the two primary locations becomes unavailable for reasons unforeseen. Ethos has secured letters of intent from the property owners and managers for all locations (See Appendix Primary and contingent dispensary locations in appendix for Leases & Letters of Intent Pg 415-466). The first site is located in Hilo where an existing building is set to undergo remodeling in order to ideally suite our needs. The second site, in Kona, is conveniently located at the site of a previous medical facility and will also undergo some modifications prior to Hawaiian Ethos using the facilities. Alternative sites are located in and in Kailua Kona. The sites selected will comply with all local, state, and county building and zoning regulations as well as all rules set forth in DOH rules Chapter 11-850. The sites have adequate patient and handicapped parking and close access to public transit lines for easy patient access. (See Appendix: Primary Dispensary Locations Pgs 415-447; Contingent Dispensary Locations Pg 448-466)

Cultivation Sites: La'au Pono has secured prospective leases for the interim and permanent cultivation sites. The sites are located in Kailua Kona on land zoned Agricultural A-5.

Plans for the new, permanent building, have been approved by an engineer (See maps, and lease in appendix pages 296-414 for interim and permanent cultivation center) and the interim facility is an existing building, which is ready to house cultivation operations immediately. The building shell for the permanent facility will be completed on August 1st. Plans for both locations have been reviewed by our architectural partners, Rhoady Lee Architect & Design for feasibility. Plans for the site have been generated to comply with all state, local law and regulations, including all rules set forth in DOH Rules Chapter 11-850. The completed locations will be capable of producing medical marijuana at the rates of [redacted] pounds per month at the interim facility and [redacted] pounds per month at the permanent facility, which we estimate will be capable of adequately meeting the needs of Hawai'i county patients (based on patient needs assumptions See appendix Pg 467-470 market assumptions)

Financial Projections: conservative and aggressive independent financial projections have been developed for Hawaiian Ethos LLC and for its cultivation subcontractor La'au Pono. Conservative projections have been based on serving 500-2500 patients. Aggressive projections are based serving on 500-3500. Both sets of projections span a period of three years. Financial documents prepared for the entities include: Cash-flow, Profit & Loss Statements, Sales Projections, Wages, Start-up Costs, and Market Assumptions for projections. (See Appendix aggressive / conservative / common financial projections Pg 471-695) Aggressive financials show the entities reaching profitability in their [redacted] year of operations servicing 2500 patients. Conservative estimates shows reaching profitability in the [redacted] year servicing 1500 patients. Conservative profit margins have been established for both entities in order put the needs of patients first by keeping prescription costs fair and accessible.

Payroll Partners: SimplicityHR is a service provided by ALTRES, who has served as the human resources "back office" for more than 1,000 local businesses for over forty-years. While Hawaiian Ethos and La'au Pono will qualify, hire, and train their own staff, the company will rely on ALTRES to manage: payroll administration, workers' compensation and claims administration, and to offer choices for quality health care plans. ALTRES provides a simple way to conduct payroll smoothly by delivering paper currency to single entity that can then provide consistent checks, direct deposits, and insurance to all Hawaiian Ethos and La'au Pono employees. (See Appendix Altres HR Services Pg 223-262) (Appendix Pg 263-277 CannaSure Insurance and workers compensation)

Employee Training: Employees working at Hawaiian Ethos dispensaries and the La'au Pono cultivation center will be required to undergo extensive training in order to perform their duties safely and efficiently. Employees will receive in-house training related to the exact nature of their work at the facilities. Additionally an employee handbook, which specifically describes work duties, company policies and procedures, and employee rights, will be provided to all individuals working for the entities.

Additionally, employees will receive training in the following areas from third party experts: Basic Medical Cannabis Education provided by Clover University, HIPAA Patient Confidentiality Training from by Supremus Group LLC, and software training on job-specific aspects of using the software system developed by our partners at BioTrackTHC. (See addenda Pg 278-292 for details on training partners).

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Hawaiian**Ethos**

Hawaiian Ethos Organizational Chart

Hawaiian Ethos Organization Chart

LLC MEMBERS

Vernon Oi
Shelby Floyd
Robert Bonar
Dale Bonar
Agorastos Hui, LLC
Rhoady Lee
Alan Gartenhaus
Chris Agorastos
John Osterhaus
Mary Osterhaus
Jock Agorastos

EXECUTIVE COMMITTEE

Shelby Anne Floyd, President
Manager of Hawaiian Ethos LLC.

Vernon Oi, Chief Science Advisor
Science Advisor for Executive Committee

John Osterhaus, Chief Operating Officer
General Business MGMT & Strategy

OPERATIONS MANAGEMENT TEAM

Malia Bolton, Dispensary Operations Manager
Management of Dispensaries

Zachary Taffany, Manufacturing Operations
La'au Pono Manufacturing Oversight

CULTIVATION TEAM - LA'AU PONO INC.

Bob Shaffer - Master Cultivator
Soil Engineer & Agronomist

Kris Jacobson - Facility Manager
Cannabis Cultivator & Consultant

MEDICAL ADVISORY BOARD

Dale B. Bonar Ph.D.
Biologist & Research Director

Michael Snyder Ph.D.
Stanford B. Ascherman Professor

Dan Lieberman M.D.
Board Certified Psychiatrist

Lawrence Steinman, M.D.
Professor, Stanford University & NIH Fellow

Mark David Noble Ph.D.
Professorship in Biomedical Genetics

STRATEGIC PARTNERS / VENDORS

SC Labs
Laboratory Guidance & Support

Hawaiian Ola
Beverage Co., Manufacturing Advisors

La'au Pono Cutivation
Manufacturing & Cultivation Subcontractor

CannaGuard
Alarm, Access, Camera Installation

BioTrackTHC
Software System Providers

PSG Security
Security Consulting Services

Guske & Company Inc.
Certified Public Accountant

Supremus Group LLC.
HIPAA/Confidentiality Compliance Training

STRATEGIC ADVISORS

Stacey Marie Kerr MD - Medical Advisor
Clinical Integration Specialist

Fred Floyd RPh - Anti-Diversion Specialist
Pharmacy Security Consultant

Khalil Moutawakkil - Dispersary Owner
Dispensary Operations Advisor

Hawaiian**Ethos**

Agreement Between La'au Pono & Hawaiian Ethos

PRODUCTION AGREEMENT

THIS PRODUCTION AGREEMENT (this "Agreement") is entered into this [redacted] day of January, 2016, but effective as of the Effective Date (defined below), by and between HAWAIIAN ETHOS, LLC, a Hawaii limited liability company ("Buyer"), whose address is [redacted] and LA`AU PONO, INC., a Hawaii corporation ("Seller"), whose address is [redacted]

RECITALS.

A. Seller has facilities (the "Facilities") for the cultivation, processing, production, manufacture, storage and transport of marijuana and marijuana products (the "Regulated Goods").

B. Buyer desires to purchase certain Regulated Goods exclusively from Seller, and Seller desires to sell such Regulated Goods to Buyer.

C. In consideration of the foregoing and the mutual agreements contained in this Agreement and other good and valuable consideration, the receipt and sufficiency of which are acknowledged, and intending to be legally bound, Buyer and Seller agree as follows:

AGREEMENT.

1. Condition Precedent. Buyer is applying for a license (the "MMJ License") from the State of Hawaii Department of Health (the "DOH") to own and operate medical marijuana dispensaries and production centers in the County of Hawaii, as defined in Hawaii Revised Statutes Chapter 329D ("Chapter 329D," and including applicable administrative rules, and any other state or county laws related to medical marijuana (such laws collectively, the "Hawaii Medical Marijuana Laws"). This Agreement shall be effective immediately upon the receipt by Buyer of notification of award of the MMJ License to Buyer (the "Effective Date"). **In the event that the DOH does not grant Buyer the MMJ License, this Agreement shall be null and void and of no further force and effect.**

2. Term. The initial term of this Agreement shall commence on the Effective Date and shall continue for a period of [redacted] years from the Effective Date (the "Initial Term" or the "Term"), unless sooner terminated or extended as set forth in this Agreement.

3. Automatic Renewal. Unless terminated by agreement of Buyer and Seller, in writing, within sixty (60) days prior to the end of the Initial Term, the Term shall automatically extend for an additional [redacted] period.

4. Supply and Purchase Obligations. Seller shall produce dried, trimmed flowers (the "Product") from marijuana plants grown and processed at the Facilities. Buyer shall be the sole customer of Seller. Seller shall offer for sale a minimum of [redacted] pounds of Product or equivalent manufactured goods. The Product will be measured, tested, packaged,

labeled and delivered in accordance with the conditions and restrictions imposed by the Hawaii Medical Marijuana Laws.

5. Purchase Price. The purchase price for each pound of the Product shall be [redacted] plus Hawaii general excise tax (the "Purchase Price"). Buyer shall make payment to Seller within fifteen (15) days of Seller's delivery, and Buyer's acceptance, of the Product.

6. Interest on Late Payments. If Buyer shall become delinquent in the payment of any amounts in respect of the Purchase Price, Buyer shall also pay to Seller as an additional fee, interest on the delinquent Purchase Price from the respective due dates thereof until fully paid at the rate of twelve percent (12%) per year.

7. Delivery and Acceptance.

(a) Delivery by Appointment Only. Prior to each delivery, Seller shall arrange with Buyer an appointment to deliver the Product to Buyer's licensed dispensaries on the Island of Hawaii ("Licensed Dispensaries"), which shall be at least [redacted]

(b) Transport and Delivery. [redacted]

(c) Receiving and Inspection. Upon Seller's scheduled delivery of the Product at the Licensed Dispensaries, Buyer's representative will: (i) inspect the Product for indications of tampering; (ii) weigh the Product; and (iii) confirm proper order fulfillment.

(d) Rejection. At the time that Buyer inspects the Product prior to final sale, Buyer may reject any portion of the Product that Buyer determines is wet, damaged or otherwise not fit for sale to consumers (as determined by Buyer in its reasonable discretion). Buyer shall secure rejected Product until Seller's next scheduled delivery. Seller shall reclaim such Product rejected by Buyer and remove it from the Licensed Dispensaries at Seller's cost.

(e) Acceptance and Purchase. Seller's Product is deemed "accepted and purchased" upon Buyer's completion of its gross weighing process. At such time, Buyer will issue a bill of sale to Seller summarizing Seller's delivery. Any Product later discovered to be defective shall be treated as rejected Product, in accordance with Section 7(d), and amounts paid in respect of such defective Product shall be credited to Seller's account.

8. Passage of Title and Risk of Loss. All risk of loss and damage to Seller's Product shall remain Seller's responsibility until such Product is delivered to and accepted by Buyer pursuant to Section 7. Title and risk of loss and damage shall pass to Buyer at the time Seller's Product is accepted by Buyer pursuant to Section 7.

9. Seller's Representations, Warranties and Covenants. Seller represents and warrants as of the date of this Agreement, and at all times during the Term, that Seller does and shall continue to:

(a) operate in accordance with the Hawaii Medical Marijuana Laws (which shall include conducting employee background checks, restricting access to the Facilities, and security measures, among other requirements);

(b) maintain ownership or possession of all property and equipment, and maintain access to the labor, reasonably necessary to produce the amount of Product to be sold to Buyer under this Agreement;

(c) implement good agricultural practices (including, but not limited to, pest management and sound water management systems), maintain records with regard to fertilizer usage and application, and implement any practices which have been identified as best management practices under Hawaii state law;

(d) utilize only those herbicides, fungicides, insecticides, nematicides, growth regulators and ripening agents that are labeled for use on the Regulated Goods in the United States and strictly adhere to all label recommendations, requirements and application rates for any product used;

(e) maintain records as required by the Environmental Protection Agency, the DOH and any other governmental agency with regard to the purchase and application of agriculture chemicals; and

(f) remove or cause to be released all liens and financing interests with respect to the Product, effective as of the time Seller delivers the Product to the Licensed Dispensaries.

10. Hawaii Medical Marijuana Laws. As the holder of the MMJ License, Buyer is subcontracting to Seller its rights under the MMJ License to cultivate and produce the Product. Seller shall not initiate contact with the DOH without the prior express approval of Buyer. Any provision of this Agreement to the contrary notwithstanding, Buyer and Seller covenant and agree that each party will perform its respective obligations under this Agreement only in compliance with the conditions and restrictions imposed by the Hawaii Medical Marijuana Laws. Seller and Buyer further covenant and agree that each shall take all steps necessary to facilitate compliance by the other party with the Hawaii Medical Marijuana Laws.

11. Right of Entry and Inspection. Buyer shall have reasonable access to the Facilities and shall be entitled to monitor and inspect all phases of Seller's marijuana cultivation, including, but not limited to, the monitoring of crop progress, the inspection of production or drying practices, and the testing and sampling of marijuana or soil; provided, however, that

Buyer shall access the Facilities only in compliance with the Hawaii Medical Marijuana Laws. Seller shall cooperate with Buyer in such inspection, monitoring and testing.

12. Takings. If the Product shall be seized, attached, executed, confiscated or levied upon under any legal process or under claim of legal right, or under forfeiture proceedings under state or federal laws, this Agreement shall terminate immediately upon seizure. In any such event, Buyer shall be entitled to prosecute a claim for the taking independent of any action by Seller.

13. Force Majeure. Neither party shall be liable to the other for its failure to perform any of its obligations under this Agreement during any period in which such performance is delayed by circumstances beyond its reasonable control, including, without limitation, acts of God, fire, flood, war, strike, riot, or inability to secure transportation facilities, or the intervention of any governmental authority. If any such delaying cause continues for more than sixty (60) days, the party continuing to perform shall have the right to terminate this Agreement.

14. Insurance. Seller shall maintain, at all times, the insurance required by those two certain Ground Leases, dated January [redacted] 2016, by and between [redacted] and Seller pursuant to which Seller leases the Facilities from [redacted]

15. Termination of this Agreement.

(a) Triggering Events. Either party may terminate this Agreement at any time upon written notice to the other with immediate effect in the event that:

(i) the other party enters into voluntary bankruptcy or a petition for involuntary bankruptcy of the other party is not dismissed for a period of sixty (60) days;

(ii) the other party becomes insolvent or unable to pay its debts as they mature, ceases to pay its debts as they mature in the ordinary course of business, or makes an assignment for the benefit of its creditors;

(iii) a receiver is appointed for the other party or its property; or

(iv) the other party is in material breach of any of the provisions of this Agreement in a manner which is not capable of remedy, or, where such breach is capable of remedy, such other party does not, following receipt of a notice requiring that the breach be remedied, remedy the breach within the reasonable time specified in the notice.

(b) Effect of Termination. Upon termination of this Agreement pursuant to Section 15(a), Seller shall:

(i) deliver, at Seller's expense (unless the termination is as a result of the default by Buyer in which case at the expense of Buyer), all Product in Seller's possession or

the possession of its agents to one or both of Buyer's Licensed Dispensaries or a disposal site approved by the DOH;

(ii) execute all documents reasonably necessary to enable Buyer to carry out its obligations to customers and make commercially reasonable efforts to cooperate with Buyer in making the necessary transition; and

(iii) make commercially reasonable efforts to cooperate with Buyer in the preparation of a final accounting. The balance owed to either party as evidenced by the final accounting shall be paid within thirty (30) days of the termination of this Agreement.

(c) MMJ License. Any provision in this Agreement to the contrary notwithstanding, in the event that Buyer's MMJ License expires or terminates prior to expiration of the Term, including, without limitation, due to the DOH's revocation of, or failure to renew, Buyer's MMJ License, this Agreement shall terminate on the last day that the MMJ License is in effect. Buyer shall promptly notify Seller of the expiration or termination of the MMJ License. The balance owed to either party as evidenced by the final accounting shall be paid within thirty (30) days of the termination of this Agreement.

(d) Seizure. If the Facilities or any part thereof shall be seized, attached, executed, confiscated, levied upon under any legal process or under claim of legal right, or under forfeiture proceedings under state or federal laws, this Agreement shall terminate immediately upon seizure. The balance owed to either party as evidenced by the final accounting shall be paid within thirty (30) days of the termination of this Agreement.

16. Assignment. This Agreement shall be binding upon the parties and their respective representatives, agents, successors and assigns. Seller shall not assign this Agreement without the express written consent of Buyer, which consent shall not be unreasonably withheld.

17. No Waiver. No failure on the part of either party, or any of their respective agents, to exercise, and no course of dealing with respect to, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise by either party or any of their respective agents of any right, power or remedy under this Agreement preclude any other or further exercise thereof or the exercise of any other right, power or remedy. The remedies herein are cumulative and are not exclusive of any remedies provided by law.

18. Section Headings. The headings of sections in this Agreement are inserted only for convenience and reference and shall in no way define or limit the scope or intent of any provision of this Agreement.

19. Severability. If any provision of this Agreement is invalid and unenforceable in any jurisdiction, then, to the fullest extent permitted by law: (i) the other provisions of this Agreement shall remain in full force and effect in such jurisdiction and shall be liberally

construed in favor of Buyer in order to carry out the intentions of the parties to this Agreement as nearly as may be possible, (ii) such provision shall be ineffective, but only to the extent of such invalidity and unenforceability, and (iii) the invalidity or unenforceability of any provision of this Agreement in any jurisdiction shall not affect the validity or enforceability of such provision in any other jurisdiction.

20. Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement and supersedes all prior agreements and understandings between the parties to this Agreement. No amendment or modification of any provision of this Agreement shall be binding upon either party unless made in writing and signed by each party.

21. Independent Contractors. The parties to this Agreement are independent contractors. Nothing in this Agreement is intended nor shall it be deemed to constitute a partnership, agency, franchise, or joint venture relationship between the parties. No party shall incur any debts or make any commitments for the other except to the extent, if at all, specifically provided in this Agreement.

22. Notices. All notices, demands or documents which are required or permitted to be given or served hereunder shall be in writing and sent by: (i) first class, registered, or certified mail, postage prepaid, (ii) hand delivery or (iii) electronic mail, provided the other party to this Note confirms in writing the receipt of notice, addressed as follows:

If to Buyer: HAWAIIAN ETHOS, LLC

[redacted]

If to Seller: LA`AU PONO, INC.

[redacted]

Any such address may be changed from time to time by serving notice to all other parties as above provided. Service of such notice or demand shall be deemed complete on the day of actual delivery or at the expiration of the second day after the date of mailing, whichever is earlier.

23. Governing Law. This Agreement shall be governed by, and construed in accordance with, the law of the State of Hawaii, without regard to the choice of laws provisions thereof.

24. Time of Essence. Time is of the essence in the performance of any obligations under this Agreement.

25. Neither Party Deemed Drafter. All provisions of this Agreement have been negotiated at arm's length and with full opportunity to be represented of legal counsel and neither party shall be deemed to be the drafter of this Agreement. If this Agreement is ever construed by a court of law or by a board of arbitrators, such court or board shall not construe this Agreement or any provision of this Agreement against either party as the drafter of this Agreement.

26. Maximum Rate of Interest. Any interest payable under the terms of this Agreement shall not exceed the maximum rate permitted by law.

27. Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and either of the parties to this Agreement may execute this Agreement by signing any such counterpart.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have executed these presents as of the day and year first above written.

HAWAIIAN ETHOS, LLC,
a Hawaii limited liability company

By:_____
Name: Stacy Floyd
Title: Manager

Buyer

LA`AU PONO, INC.,
a Hawaii corporation

By:_____
Name:
Title:

Seller

IN WITNESS WHEREOF, the parties hereto have executed these presents as of the day and year first above written.

HAWAIIAN ETHOS, LLC,
a Hawaii limited liability company

By:_____
Name:
Title:

Buyer

LA'AU PONO, INC.,
a Hawaii corporation

By:_____
Name: Vernon Toshiak. Oi
Title:

Seller

HawaiianEthos

Dispensary Operations Plan

HAWAIIAN ETHOS

DISPENSARY

POLICIES AND PROCEDURES

1

2

HAWAIIAN ETHOS MISSION

Ensuring qualifying Hawaii Island residents access to evidence-based treatment choices for medical-grade cannabinoids.

***

Vision

Hawaiian Ethos will develop and maintain state-of-the-art organic medical marijuana cultivation, product development and quality assurance in GMP-certified manufacturing facilities to provide Hawaii Island with medical-grade cannabinoid treatments for approved medical and health conditions.

Hawaiian Ethos will provide a choice of medical marijuana products with different ratios of cannabinoids, e.g., tetrahydrocannabinol (THC) and cannabidiol (CBD) and terpenes from distinct cannabis varietals for different approved medical conditions.

Hawaiian Ethos will maintain scientific and medical expertise, in order to provide patients, physicians, and the general public with educational information about cannabis pharmacology and usage of cannabis varietals and their development. Our medical advisory board will assist in developing appropriate feedback questionnaires and forms to protect patient privacy and safety.

Hawaiian Ethos will collect and record patient input using a software application to share evidence-based patient feedback with physicians and fellow patients. This information will be limited to responses about different product lines having different cannabinoid and terpene content.

Front End of the Distribution:

Hawaiian Ethos Dispensary is committed to providing safety and quality to their patient and employees. Dispensary locations shall remain locked at all times. Hawaiian Ethos is dedicated to providing a dispensing facility that meets all the needs of our patients.

DISPENSARY OPERATIONS POSITION OUTLINE

Dispensary Employees

At Hawaiian Ethos, we strive for excellence not only in our product and the medicinal functionality of our products, but also in our staff. When hiring employees, Hawaiian Ethos looks for individuals who not only fit the minimum requirements for the position, but have the ability to maintain patient relationships. Employees should have an inherent understanding that safety and security, patient service, knowledge of medicinal products, rules and regulations, and knowledge of dispensary amenities of the utmost importance.

At Hawaiian Ethos we require that all employees are twenty-one years and above. All employees will wear a All dispensary employees, regardless of position, will have the same foundation and training of current laws and regulations on medicinal marijuana. Educating our patients with accessible information is our number one priority. In order to do so we must ensure our staff are trained and oriented in such a way that provides our patients with the knowledge to make informed decisions. Please refer to the Training and Professional Development section below.

All state and local laws and regulations will be strictly adhered to by Hawaiian Ethos. Dispensary Managers will make sure that all employees of the dispensary are well-versed in all rules and regulations and will abide by them in their entirety.

Dispensary Facility General Manager

General Manager will oversee all day-to-day operations. The General Manager provides leadership to all positions in the dispensary including Assistant Managers, Pharmacists or Sales Representatives, Patient Advocates, Receptionists and Security for building. The general manager is ultimately responsible for the overall well-being of the facility including but not limited to, over all patient experience, building maintenance, cleanliness, safety and security of the dispensary. Most importantly, the General Manager (GM) is ultimately responsible for a strict adherence to laws and regulations concerning medical marijuana.

Dispensary Facility Assistant Manager(s)

Dispensary Facility Assistant Manager will report to the General Manager. The Assistant Manager will assist GM with day to day tasks and as well as delegated management responsibilities from GM.

Counselor/Patient Advocate(s)

Responsible for patient consultations, intake and acceptance of new referrals, and providing new patients with Introductory Informational Materials. Counselor/Patient Advocate reports to the GM of the Dispensary.

Sales Associate(s)

Responsible for sales of medical marijuana medicines. Sales Associates will report directly to the Assistant manager.

Receptionist(s)

Responsible for checking in patients who submit proper identification for either patient or caregiver (valid medical card, identification cards, etc.) Upon receipt of positive verification of pre-requisite identification, receptionists will refer new patients and/or to a Counselor or Patient Advocate, while existing patients and/or caregivers will be directed into the dispensary for purchase of medicinal marijuana products. Receptionists will report directly to the Assistant Manager.

Security Guard(s)

Responsible for safe-guarding all entry's to dispensary as well as handling emergency security situations. Security Guards report directly to the General Manager.

TRAINING AND PROFESSIONAL DEVELOPMENT

All new hires at Hawaiian Ethos will be issued a photo identification badge on their first training day, and must wear it at all times during the dispensary hours of operation. New employees will go through an in-depth training on all particulars necessary to successfully run the dispensary to bring the best service to our patience, best medicinal products, all of which will enforce the utmost respect to rules and regulations.

The entire Hawaiian Ethos staff will go through a training that adheres to all current laws and regulations. Training will be administered by the dispensary General Manager as well as out-sourced professionals from their areas of expertise. Hawaiian Ethos maintains a strict, zero tolerance rule for any and all violations to state laws and regulations. Each employee will be tested on laws and regulations surrounding all medical marijuana state laws and other relevant information to their job title.

All new medical marijuana and dispensary facility laws and regulations must be administered on the date of publication.

Methods of Training:

Hawaiian Ethos employees will receive specialized training in the following areas from third party experts: Basic Medical Marijuana Education provided by Clover University, HIPAA Patient Confidentiality Training from by our partners at Supremus Group, Safety and Security

from PSG and software training on job-specific aspects of using the company wide software systems developed by our partners at BioTrackTHC.

Safety and Security:

All approved and licensed facilities owned and operated by Hawaiian Ethos and La'au Pono including medical marijuana dispensaries and the cultivation facility will be equipped with commercial grade, non-residential locking mechanisms on all points of entry, exit and on all windows that open. All locking mechanisms will be fully integrated with the professionally installed and centrally monitored alarm system. (See security overlay of facility floor plan)

[redacted]

8

[redacted]

[redacted]

Disaster Response and System Failure Protocols: In the event of a breach or failure of the security system, alerts will immediately be sent out to the licensee, the department and all authorized representative. The facility manager will immediately suspend operations and secure the licensed premises according to our disaster response protocols until the system is fully operational. Upon returning the system to working order, the dispensary will notify the department prior to it resuming operation.

HIPAA Patient Confidentiality Training by our partners at Supremus Group:

Prior to beginning employment with Hawaiian Ethos, all employees will be required to complete comprehensive training, which includes education on client/patient confidentiality and HIPAA

pursuant to the standards set forth in the 1996 Health Insurance Portability and Accountability Act.

**At Hawaiian Ethos patient confidentiality is of the utmost importance; any and all patient information is confidential and is to remain secured on location. Any unauthorized release of patient information will be grounds for immediate job termination. See Appendix ## - ##Hawaiian Ethos Employee Manual (sub section) on HIPAA training for more details on confidentiality training.

CHPA level training will prepare all Hawaiian Ethos employees with everything they need to know in order to complete the HIPAA (CHPA) certification exam. The course program is designed for members of the workforce who need a comprehensive understanding of HIPAA. The course will also be tailored to meet all of the job-role based training requirements for each employee. Trainees will be educated on every aspect that a healthcare worker needs to know about HIPAA Privacy and security through this comprehensive course. The course can be taught in a classroom setting or online and is updated with the latest HIPAA changes under ARRA's HITECH act in 2009 as well as the Omnibus rule of 2013.

Hawaiian Ethos management will attend CHCE Level HIPAA Training that educates individuals on the HIPAA law requirement for Privacy rules and basic overview on HIPAA security rules. The course will also guide managers on how to keep the organization HIPAA compliant. All the amendments to the HIPAA regulations due to Health Information Technology for Economic and Clinical Health (HITECH) Act, which is part of American Recovery and Reinvestment Act of 2009 (ARRA) and Omnibus rule of 2013 are included in this training.

Medicinal Marijuana Training by our partners at Cloverleaf University

Hawaiian Ethos will partner with Cloverleaf University to educate all employees on pertinent information in the medical marijuana industry. These courses will be designed for employees who will have daily face-to-face contact with patients at the dispensary. A weekend long certification course covers all the basic fundamentals of Medical Marijuana , including an examination of the industry and science of growing, compliance and business to a wide variety of topics to fit our needs as a business. Please refer to Section Two for a comprehensive overview of Clover Leaf University course descriptions and qualifications.

POS System BioTrackTHC

Hawaiian Ethos has partnered with BioTrackTHC, a leading industry seed-to-sale Medical Marijuana Point of Sale software. BioTrackTHC is designed to not only offer a turn-key POS software system to meet state regulations, but to actually enhance and streamline every aspect of Hawaiian Ethos. Not only will

See Appendix ##-##for a comprehensive BioTrackTHC user guide.

EMPLOYEE DATA PROTECTION

In connection with your employment, Hawaiian Ethos may ask you to provide certain information, including, but not limited to, your name, mailing address, telephone numbers, citizenship, country of residence, country of origin, gender, birth date, marital status, name of dependents, birth date of dependents, occupation of dependents and national identification number. Additionally we may maintain information relating to your employment with Hawaiian

Ethos including, but not limited to, your employee identification number, business unit/division of employment, department, physical work location, job code, compensation rate, supervisor, work shift, hire and termination date, appraisal dates and ratings, training, skills, educational background, language proficiency, certifications and licenses.

The information collected by Hawaiian Ethos will be used for various administrative and record keeping purposes by Hawaiian Ethos.

Disclosure of Employee Information:

Unless you withdraw your consent, in writing, you agree to and accept the proposed use, disclosure and transmission of your Employee Information by Hawaiian Ethos as set forth in this Policy. Upon any modification of this Policy, Hawaiian Ethos will prominently post a revised Policy within five (5) business days of its adoption and provide employees with an opportunity to withdraw his or her consent to any new use or disclosure of his or her Employee Information. If any employee objects toHawaiian Ethos collection of information, use, disclosure or transmission of certain Employee Information, Hawaiian Ethos will make reasonable efforts to address the concerns of the employee. In no case will an employee be subject to sanction or retaliation for objecting to the collection, use, disclosure or transmission of Employee Information. Any employee who withholds Employee Information or prohibits its collection, use, disclosure or transmission, however, may be disadvantaged as a result of not making the information available. For example, unwillingness to provide information required to use a service or receive a benefit may make an employee ineligible for that service or benefit.

Your Rights Regarding Your Employee Information

Although your Employee Information is the physical property of Hawaiian Ethos, the information contained in the record belongs to *you*. Upon request in a reasonable notice period, each employee has the right to:

- Obtain a copy of all Hawaiian Ethos Protection Policy upon request.
- Inspect his or her Employee Information and be able to correct or amend information where it is inaccurate, except where the burden or expense of providing access would be disproportionate to the risks to the individual's privacy in the case in question, or where the rights of persons other than the individual would be violated. All requests to inspect, correct, amend, or delete information must be submitted in writing to Hawaiian Ethos' Director of Human Resources.
- Review Hawaiian Ethos' process and procedures for electronically transmitting Employee Information, as set forth in Practice for Protection and Transmission of Employee Data as well as the Hawaiian Ethos' Policy Statements referred to therein.
- Withdraw his or her consent to the continued or future use and disclosure of his or her Employee Information, except as to that Employee Information that Hawaiian Ethos' determines to be necessary for continued employment.
- In the event that Hawaiian Ethos modifies the terms of this Policy, we will promptly post a revised which describes all intended uses and disclosures of Employee Information, within five (5) business days of its adoption, and provide employees with an opportunity to withdraw his or her consent to any new use or disclosure of his or her Employee Information.

Complaints

If you believe Hawaiian Ethos has been breached any of its policies by permitting an unauthorized use, disclosure or transmission of your Employee Information, you may contact or file a complaint with your supervisor. If you are not satisfied with the response or action taken by your supervisor, all such complaints and concerns may then be directed to the Director of Human Resources. You will not be penalized for filing a complaint.

Record of Training: Hawaiian Ethos Dispensary managers are responsible for maintaining a training record for each distribution facility team member. Such records will include, at a minimum, documentation of all required training, including:

- The name of the person receiving the training;
- The dates of the training;
- A general description of the topics covered;
- The name of the person supervising the training; and
- The signatures of the person receiving the training and the production facility compliance manager.

Hawaiian Ethos is committed to providing ongoing education and professional development for all employees and their respective positions. All educational content materials will be up to date and in congruence with standards of the DOH.

Service to our Patients: Hawaiian Ethos holds the service to our patients to be one of our most important company values. All employees are expected to act friendly, courteous, respectful, and

polite when interacting with all patients. In addition all Examples of prompt and courteous service to our patients include but are not limited to the following actions:

- Answering the telephone before three (3) rings;
- Answering the telephone stating the company name(s) and location, your name, and a question relative to helping the caller with the information they are requesting.
- Transferring calls to the individual or department that is best fit to assist the caller;
- Greeting patients and caregivers when they enter the building;
- Assisting patients and caregivers as best you can; and
- Treating patients and caregivers as you expect to be treated.
- Calls from potential vendors should be escalated to the Dispensary Manager.

CHRONOLOGICAL DAILY DISPENSARY OPERATIONS

Hours of Operation

Monday - Saturday 8am-8pm

The following state and federal holidays will be recognized by dispensary and result in closure of the business.

- New Year's Day
- Martin Luther King Jr. Day
- Presidents Day
- Prince Jonah Kuhio Kalanianaole Day
- Memorial Day
- King Kamehameha I Day

- Independence Day
- Statehood Day
- Labor Day
- Thanksgiving Day
- Day After Thanksgiving
- Christmas Day

In the event of severe weather conditions or natural disasters, Hawaiian Ethos will take all necessary precautions to ensure the safety and well-being of both patients and staff.

Opening Dispensary

Secured Entry See Security plans for dispensary

All employees must be punctual to clock in and out for the start and end of shifts. Employees who fail to abide by these rules will be subject to disciplinary actions.

Opening Responsibilities:

Opening responsibilities will mainly be for floor staff, of whom will prepare dispensary for the day, as well as maintain areas throughout the day as needed. Responsibilities include but are not limited to:

- Maintenance checklist: assuring a presentable and welcoming environment for all patients and caregivers visiting the dispensary throughout the day.
- Balancing cash drawers and assigning them to POS systems. Please refer to BioTrackTHC user manual.

- Initiate Inventory Checklist log:
    1. remove inventory from dispensary products safe
    2. Stocking and counting for new products
    3. Count and removal of expired products
        - Any discrepancies found in inventory log will be resolved by management.
- Assuring Display cases, counters and display floor are adequately organized, displayed and stocked for day of sales.

All opening duties must be verified and checked by General Manager.

Shift Meeting

At Hawaiian Ethos, shift meetings will be held each day to keep all staff up to date on relevant company information. These meetings will include but are not limited to:

-recap of previous day

-new policies and procedures

-new laws and regulations relevant to our business

-adjustments of scheduling

-goals and workflow of the shift

Shift Meetings will be held prior to opening the doors.

Patient In-take:

Patients must present a valid medical marijuana license, authenticated through an electronic verification system before entering the facility. Patients will then enter the facility and sign in with the receptionist.

- All new patients will fulfill an initial New Patient In-take process in which they will of verification of paperwork (state identification as well as medical marijuana license etc.). The on-site Counselor or Patient Advocate will review all new patient information as well as provide them with helpful information illustrating safe use of medications. At this time all information will be submitted to POS system in order to track inventory, sales and visits of the new patient. *All* new patients are required to fulfill this introductory visit before entering the dispensary retail area. Please See Patient Education Documents
- Existing patients will need to show both forms of identification (state ID as well as medical marijuana license) through the electronic verification system before entering dispensary.

Keeping in mind that our patients are the main reason and focal point of the medical marijuana industry, it is our priority to educate our patients with up to date information on medical marijuana. Hawaiian Ethos will provide a resource informational packet, which will be delivered upon intake of a new patient, to any patient upon request, as well as offered in digital form found at www.hawaiianethos.com as well as our smartphone app. (Appendix ##-##-Hawaiian Ethos App) The packet is composed of important and helpful information to ensure comprehension of Hawaiian Ethos' resources and amenities. Our goal at Hawaiian Ethos is to inform our patients

with well-rounded and thorough information, so as to give all patients equal opportunities to make informed choices.

Hawaiian Ethos educational material for patients is information readily available for a brief outline of Hawaii's medical marijuana history, and the plethora of potential medical uses of marijuana. This section also indicates procedures in which one might comply with in order to obtain a license, from contacting medical expertise to application and registration and regulations surrounding medical marijuana. At Hawaiian Ethos, it is important to us that our patients are well-informed specifically to the medicinal properties and strains of medical marijuana. With an understanding of distinguishing classifications of strains, cannabinoids and their uses, patients will be better informed when making their medicinal choices. All content is solely for supplemental education and does not take the place of patients' Dr. recommendations and diagnosis.

Sales Transactions

Prior to initializing a sale, Hawaiian Ethos team members' must verify confirm that patient has an existing record and that the information is correct and up to date in the POS system. This information indicates the amount of medicine that is prescribed to patients as well as the amount purchased in previous visits. Once Hawaiian Ethos has determined prescription and diagnosis from existing records, they are given recommendations patients are permitted to review and purchase medicinal marijuana products.

Patients and/or caregivers are not permitted, under any circumstance to test or sample any medicinal marijuana products. Should there be any instance of violating this rule, team members will be subject to disciplinary action that could result in termination. Please See Ethos Menu
All purchases will be subject to applicable sales tax. All taxes will be programmed into our POS system to ensure that it is being recorded.

Cash Handling

All cash handing at the POS system should be done in view of surveillance camera. Not only will this reduce the risk of employee theft but also ensure the safety of staff from potential robbery. Please See Bank Information (Zachary)

Hawaiian Ethos is dedicated to our patients satisfaction and any concerns they may have about the medicinal marijuana. In the event of an unsatisfied patient would like to return medicinal product, under the supervision of management, a team member will refund the purchase. Refunded purchases must go directly through the disposal and destruction process.

Closing Responsibilities:

Closing of Hawaiian Ethos will comprise of closing dispensary sales floor as well as inventory and the dispensary safety and security throughout the night until opening the following morning.

Closing responsibilities include and may not be limited to:

- Finalize Inventory Checklist log manually as well as through POS System

- Stocking and providing count for new products
  - Inventory and removal of expired products
  - Assuring all products from display cases have been removed and returned to dispensary product safe.
- Cash balancing
- Closing and Balancing POS system

All closing responsibilities will be checked and verified for quality by the Dispensary General Manager.

Upon exiting the dispensary, employees must be checked out by dispensary manager, clock out, and exit the premises through a secured entry/exit.

Dispensary Inspections: Hawaiian Ethos is confident that all operations at the dispensary are in line with expectations from the department. All employees will be well informed and trained on these rules and regulations and will be subject to annual or unannounced inspections of operations by the DOH. Hawaiian Ethos will also submit reports of complying operations to the DOH upon request.

Audits and Secret Shoppers :

It is of the utmost importance that our patients are given a service that reflects the care and in depth knowledge that the patients of Hawaiian Ethos can count on. During the employee selection process, we strive to find well informed, passionate and genuine individuals that carry out our vision. In order to assure our team at Hawaiian Ethos is providing the best services we

will have consistent audits by the third party company called *CatchFire CX see appendix ##-## CatchFire* . Catch fire will provide services including but not limited to:

- Mystery Shopping - deploy field agents to evaluate customer service, sales processes, wait times, courtesy, cleanliness, transactional processes, and product knowledge within the dispensaries. This can be for a single dispensary, or a dispensary with multiple locations. Mystery shoppers will also take note of Hawaiian Ethos' adherence to state and local laws, including but not limited to:Survey employees for ongoing job satisfaction awareness and to gather new insights for improving the environment or operations (from seed to sale).
- Conduct Entrance Interviews (when a new employee is hired) to determine why the employee wanted to work for the organization, what they hope to learn, and what the employee on boarding process was like.
- Exit Interviews (when employee quits or is let go) to determine what issues the employee may have had with the organization. Determine Vendor's satisfaction and ease of working with the business or organization and what could be improved.

Inventory Management

Inventory management is a critical factor at every facility within the organization. The tracking of all medical marijuana from seed to sale will be done through inventory management through the use of template log sheets. Physical inventory counts will be done on a daily, weekly, and monthly basis at the distribution facility. This is the primary way to determine if there has been

any product diversion and to ensure that all medical marijuana and medical marijuana products are only being distributed to licensed patients.

Physical inventory template log sheets will be filled out each morning before the start of business, and then again inventories will be recorded at the closure of business. These inventory figures will be cross-references with the POS system inventories and data to determine that there are no quantity discrepancies. In the case of a discrepancy within inventory we will investigate the root cause of the discrepancy to determine the cause. If the discrepancy came at the hands of employee theft or diversion, we will act quickly to terminate the employment of the perpetrator and contact all necessary authorities for further action.

Again, Hawaiian Ethos will utilize BIoTrackTHC POS software and hardware for inventory management, seed-to-sale tracking and for the sales procedure. See Appendix ##-## 'BioTrackTHC' Addenda educational materials.

Receiving inventory:

All practices regarding receiving inventory from La'au Pono will adhere to all rules and regulations set forth by the DOH. Each step from the cultivation site will be closely monitored and recorded by the General Manager and Head Security of the Dispensary. Upon the arrival of the transport vehicle, delivery personnel will present a Transportation Manifest (see appendix ##-## Transportation Manifest), and the receiving party will inventory transported materials, indicate the time and date received, take custody of all transported materials and sign off on the completed transport manifest.

Because contents of delivery are tagged from seed to sale, managers of both the La'au Pono cultivation site and the dispensary assure incredibly low risk or error. In the event of a discrepancy in actual inventory versus the expected inventory declared in the transport manifest, the delivery personnel and Dispensary Manager will do an inventory count to discover all missing materials. Materials determined to be missing will be recorded and noted to their last defined point in the chain of custody. Any discrepancies will be reported to the Director of Operations for further investigation.

Return of Inventory for Disposal:

From time to time there will be inventory that must be returned to the cultivation site for disposal Description of and reason for the marijuana being disposed of. Employees of Hawaiian Ethos will create a manifest including the following:

- Date of disposal;
- Method of disposal; and
- Name and registry identification number of the dispensary agent responsible for the disposal.
- Inputted into BioTrackTHC as Damaged Inventory.

Until the said inventory is retrieved, it will be stored in a designated safe marked *Inventory for Disposal.* Upon delivery of new inventory, transportation personnel will retrieve *inventory for disposal* with return manifest attached. Once all material has been verified and through the BioTrackTHC POS system and verified that all *inventory for disposal* is accounted for, material will be loaded into delivery vehicle and returned to the La'au Pono Cultivation site. Materials

with then be tracked and disposed of through the disposal methods (See Appendix ##-## Incinerator Addenda)detailed in the La'au Pono Cultivation Operations Guide (See Appendix ##-## La'au Pono Cultivation Operations Guide).

Transportation: All applicable state and local laws and regulations will be strictly adhered to by all organization team members. The distribution facility manager will be responsible for creating and implementing a process for the transportation of various products to other distribution facilities. ## see Appendix Transportation guide.

Inventory Control:

The Dispensary Manager will be responsible for oversight of the inventory control system. Medical marijuana dispensary shall establish and implement an inventory control system that documents:

- Each day's starting inventory
- Acquisitions
- Sales
- Disbursements
- Disposal of unusable Medical Marijuana inventory

If Hawaiian Ethos identifies a reduction in the amount of medical marijuana in the inventory of the dispensary not due to documented causes, the manager shall determine where the loss has occurred and take and document corrective action. If the reduction in the amount of medical marijuana in the inventory of the medical marijuana dispensary is due to suspected criminal

custody of the videotape. The Manager of Branch Operations will surrender the film or cassette to the designated law enforcement officer collecting evidence. See safety and Security

FIRE PREVENTION

The elimination of fire hazards protects, among other things, the personal safety of all employees, College property, and valuable records. Extreme caution must be exercised at all times to avoid causing a fire. To assist in fire prevention, each employee should become familiar with the location and operation of the fire extinguishers that are provided in his/her work areas. Fire hazards should be reported and eliminated at once.

In the case of a fire, employees should immediately:

- Dial 911 or the local fire department;
- Contact a supervisor and evacuate all employees from the area;
- If it's a small fire, locate the nearest fire extinguisher and attempt to extinguish the fire;
- If it's a large fire, immediately leave the area and make no attempts to fight the fire; and
- Upon their arrival, direct the fire department crew to the fire; do not re-enter the building unless directed to do so by the fire department.

Questions regarding this policy should be directed to your supervisor.

SECURITY INSPECTIONS

Hawaiian Ethos wishes to maintain a work environment that is free of illegal drugs, alcohol, firearms, explosives, or other improper materials. To this end, Hawaiian Ethos prohibits the possession, transfer, sale, or use of such materials on its premises. Hawaiian Ethos requires the cooperation of all employees in administering this policy.

Desks, lockers, and other storage devices may be provided for the convenience of employees but remain the sole property of Hawaiian Ethos. Accordingly, they, as well as any articles found within them, can be inspected by any agent or representative of Hawaiian Ethos at any time, either with or without prior notice.

Hawaiian Ethos likewise wishes to discourage theft or unauthorized possession of the property of Hawaiian Ethos, employees, visitors and patients. To facilitate enforcement of this policy, employees, or its representative may inspect not only desks and lockers but also persons entering and/or leaving the premises and any packages or other belongings. Any employee who wishes to avoid inspection of any articles or materials should not bring such items onto employees, premises.

Hawaiian Ethos has comprehensive security protocols in place to limit risk to its operations and ensure the safety of its employees, customers, and facilities.

- In the event the dispensary facility experiences a security system breach or failure, facility management will secure the facility and immediately suspended all operations and the following measures will be followed:

[redacted]

- Activation of the Hawaiian Ethos Incident Management Team
  - The Incident Management Team (IMT) consists of Hawaiian Ethos executive management representatives, operational management, security, facilities, and embedded internal or external partners depending on the severity of the incident. The IMT process is a proven incident management framework to quickly identify risks and issues

allowing management to formulate action plans to address and limit risk and ensure the safety and security of the facilities are maintained

- Resumption of Operations
  - Once the failure or breach has been addressed and the IMT is satisfied that required security systems are fully operational, the facility can resume operations
- After Action Reports (AAR)
  - Within 72 hours of the resumption of operations, an after action report will be completed identifying the causes of the failure or breaches and corrective measures put in place to mitigate future failures or breaches
- Notifications to the Hawaii Department of Health:
  - Hawaiian Ethos will notify the Hawaii Department of Health that there was a breach or failure and protocols followed to ensure the security and safety of the facilities and mitigation strategies

DISCIPLINARY ACTION

Disciplinary action at Hawaiian Ethos is intended to fairly and impartially correct behavior and performance problems early on and to prevent reoccurrence. Disciplinary action may involve any of the following: verbal warning, written warning, suspension with or without pay, and termination of employment, depending on the severity of the problem and the frequency of occurrence. Hawaiian Ethos reserves the right to administer disciplinary action at its discretion and based upon the circumstances. Hawaiian Ethos recognizes that certain types of employee

behavior are serious enough to justify termination of employment, without observing other disciplinary action first.

These violations include but are not limited to:

- Workplace violence;
- Harassment;
- Theft of any kind;
- Vandalism or destruction of company property;
- Presence on company property during non-business hours;
- Use of company equipment and/or company vehicles without prior authorization;
- Divulging Hawaiian Ethos business practices or any other confidential information; and
- Violating any state or local law regarding the sale, production, or distribution of medical marijuana.

HawaiianEthos

Hawaiian Ethos Employee Manual

HAWAIIAN ETHOS

EMPLOYEE HANDBOOK AND CODE OF ETHICS

1

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RECEIPT OF HAWAIIAN ETHOS EMPLOYEE HANDBOOK

The Employee Handbook is a compilation of personnel policies, practices and procedures currently in effect at Hawaiian Ethos, an equal opportunity employer. The Manual handbook and the information within it are confidential.

This handbook is designed to introduce employees to the organization, familiarize you with Hawaiian Ethos policies as they pertain to you as an employee, provide general guidelines on work rules, disciplinary procedures and other issues related to your employment, and to help answer many of the questions that may arise in connection with your employment.

This handbook and any other provisions contained herein do not constitute a guarantee of employment or an employment contract, express or implied. You understand that your employment is "at-will" and that your employment may be terminated for any reason, with or without cause, and with or without notice. Only the CEO or other authorized representative(s) of Hawaiian Ethos has the authority to enter into a signed written agreement guaranteeing employment for a specific term. This handbook is intended solely to describe the present policies and working conditions at Hawaiian Ethos. This handbook does not purport to include every conceivable situation; it is merely meant as a guideline and, unless laws prescribe otherwise, common sense shall prevail. Of course, federal, state and local laws will take precedence over Hawaiian Ethos policies when applicable.

Personnel policies are applied at the discretion ofHawaiian Ethos. Hawaiian Ethos reserves the right to change, withdraw, apply or amend any of our policies or benefits, including those covered in this handbook, at any time. Hawaiian Ethos may notify you of such changes via email, or via a printed memo, notice, amendment to or reprinting of this handbook, but may, in its discretion, make such changes at any time, with or without notice and without a written revision of this handbook.

By signing below, you acknowledge that you have received a copy of Hawaiian Ethos Employee Handbook, and understand that it is your responsibility to read and comply with the policies contained within it and any revisions made to it. Furthermore, you acknowledge that you are employed "at-will" and that this handbook is neither a contract of employment nor a legal document.

_____ _____

Signature Date

_____

Please print your full name

Please sign and date one copy of this notice and return it to Human Resources. Retain a second copy for your reference.

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WELCOME MESSAGE

Dear Valued Employee,

Welcome to Hawaiian Ethos! We are pleased with your decision to join our team.

Hawaiian Ethos is committed to providing superior quality and unparalleled customer service in all aspects of our business. We believe each employee contributes to the success and growth of our company.

This handbook is designed to acquaint you with Hawaiian Ethos and provide you with general information about working conditions, benefits and policies affecting your employment.

The information contained in this handbook applies to all employees of Hawaiian Ethos. Following the policies detailed within the handbook is considered a condition of continuous employment. The contents of this manual shall not constitute nor be construed as a promise of employment or as a contract between Hawaiian Ethos and any of its employees. The handbook is a summary of our policies, which are presented here only as a matter of information.

You are responsible for reading, understanding and complying with the provisions of this handbook. Our objective is to provide you with a work environment that is constructive to both personal and professional growth.

Welcome aboard. We look forward to working with you!

Sincerely,

CEO

CHANGE POLICY

Hawaiian Ethos understands that change is a very important part of growth. Therefore, we reserve the right to modify, suspend, cancel or question all provisions of this handbook with or without notice; any and all parts of our policies, procedures, and benefits at any time. Changes will be effective and updated on the dates designated by Hawaiian Ethos, and subsequently all previous policies and regulations will be applicable.

Please note that individual managers or supervisors do *not* have the authority to alter or change any policies on their own.

Please consult a supervisor or the Director of Human Resources with any clarifying questions on unclear policies and/or procedures.

HAWAIIAN ETHOS EVENTS

At times, social events will be hosted by Hawaiian Ethos for employees to attend. These events may take place due to the hiring or promotion of an employee, or for other reasons.

Some events will be celebrated with a group luncheon, arranged by management. Other events (such as employee birthdays or service anniversaries) will be recognized with a card or gift from Human Resources. At times, Hawaiian Ethos may also host parties or social gatherings outside of working hours. These events may take place to celebrate holidays or Hawaiian Ethos successes, or for many other reasons.

At all Hawaiian Ethos social functions, employees are responsible for behaving in a professional manner. While alcohol may be served, employees should refrain from becoming intoxicated in order to avoid disruptive behavior.

Even at social functions, employees must remember that they are representing Hawaiian Ethos and need to ensure that they are upholding Hawaiian Ethos' positive reputation at all times.

GENERAL EMPLOYMENT

NATURE OF EMPLOYMENT

The policies set forth in this employee handbook are the policies that are in effect at the time of publication. They may be amended, modified, or terminated at any time by Hawaiian Ethos, except for the policy on at-will employment, which may be modified only by a signed, written agreement between Hawaiian Ethos partners and the employee act issue. Nothing in this

handbook may be construed as creating a promise of future benefits or a binding contract between Hawaiian Ethos and any of its employees.

EQUAL OPPORTUNITY

Hawaiian Ethos is committed to creating a diverse environment and is proud to be an Equal Opportunity employer. Hawaiian Ethos hires employees based upon qualifications and capabilities to perform the essential functions of the particular job. Pursuant to this commitment, Hawaiian Ethos does not discriminate on the basis of sex, gender or gender identity; race; color; national origin; religion; creed; age; disability; citizenship; marital or domestic partnership status; sexual orientation or affectional status; genetic predisposition or carrier status; military or veteran status.

This Equal Opportunity policy is a constant throughout all aspect of employment and including, but not limited to, selection, job assignment, compensation, discipline, termination, and access to benefits and training.

In order to maintain a safe and supportive work environment, Hawaiian Ethos strongly urges the report of all instances of discrimination and prohibits retaliation against any individual who reports discrimination or participates in an investigation of such report.

ETHICS

At Hawaiian Ethos, employees are held to the utmost ethical standard at all times. Because our employees are all representations of Hawaiian Ethos, and all actions of each individual are a reflection of Hawaiian Ethos itself. We encourage our employees to practice sound decision-making and to take actions that will preserve Hawaiian Ethos' culture of practicing the highest standards of both personal and business integrity. It is the responsibility of each employee to become familiar with and adhere to the policies and any supplemental policies and procedures to which your business and legal entity is subject.

We expect that *all* Hawaiian Ethos staff comply with our ethics policy and to refrain from engaging in any acts of illegal, dishonest, or unethical behavior. In the event that employees do not adhere to ethical standards, they may be subject to a number of disciplinary action including but not limited to suspension or termination. We encourage all employees to consult a supervisor if there is any question of ethical clarity.

CONFIDENTIALITY

At Hawaiian Ethos, we hold a high value our internal company information. It is the responsibility of all current and former employees to adhere to all aspects of confidentiality. In the event that employees do not adhere to confidentiality stated in this agreement, they may be subject to a number of disciplinary action including but not limited to suspension or termination. Confidential business information include but is not limited to:

- Any material developed using company resources and/or time;
- Compensation data;
- Computer processes;
- Computer programs and codes;
- Conversations between any persons associated with the company;
- Customer lists;
- Customer preferences;
- Financial information;
- Genetics library;
- Labor relations strategies;
- Marketing strategies;
- Medical cannabis research and developments;
- New materials research;
- Pending projects and proposals;
- Proprietary production processes;
- Personnel/payroll records;
- Research and development strategies;
- Scientific data;
- Scientific formulae;
- Scientific prototypes;
- Strains;
- Technological data; and
- Technological prototypes.

INTELLECTUAL PROPERTY

Hawaiian Ethos restricts employees' use and disclose of the company's confidential information and intellectual property (see above). Beyond these mandatory restrictions, you should treat Hawaiian Ethos valuable knowledge and other confidential information and intellectual property accordingly, so as not to jeopardize them through any vehicle of delivery. In addition, you should

avoid misappropriating or infringing the intellectual property of other companies and individuals, as it could create potential liability for yourself and for Hawaiian Ethos.

Do not use Hawaiian Ethos' logos, brand names, tag-lines, slogans or other trademarks, or post any confidential or proprietary information of the company, without prior written permission.

Intellectual property includes, but is not limited to the following:

- Inventions;
- Discoveries;
- Trade secrets;
- Trademarks;
- Writings;
- Software;
- Marketing campaigns; and
- Product formulas

SOLICITATION

In an effort to ensure a productive and harmonious work environment, persons not employed by Hawaiian Ethos may not solicit or distribute literature in the workplace at any time for any purpose.

Hawaiian Ethos recognizes that employees may have interests in events and organizations outside the workplace. However, employees may not solicit or distribute literature concerning these activities during working time. (Working time does not include lunch periods, work breaks, or any other periods in which employees are not on duty.)

Examples of impermissible forms of solicitation include:

- The collection of money, goods, or gifts for political groups
- The circulation of petitions
- The distribution of literature not approved by the employer
- The solicitation of memberships, fees, or dues

In addition, the posting of written solicitations on company bulletin boards is restricted. These bulletin boards display important information, and employees should consult them frequently for:

- Affirmative Action statement
- Employee announcements
- Internal memoranda
- Organization announcements

- Workers' compensation insurance information
- State disability insurance/unemployment insurance information

If employees have a message of interest to the workplace, they may submit it to the Human Resources Director for approval. All approved messages will be posted by the Human Resources Director.

EMPLOYEE RELATIONS

Hawaiian Ethos sees an immense value in providing paramount work environments, wages and benefits for our team. In doing so we also encourage that employees communicate openly with supervisors and peers alike to cultivate and maintain a standard openness and positivity. Based on prior experience, we have found that positive working environment increases not only moral, but promotes positive work ethic, and raises overall happiness of employees.

If any Hawaiian Ethos employees develop concerns about work conditions and or compensation, they are strongly encouraged to discuss these concerns with their supervisors and/or the Director of Human Resources.

OPEN DOOR POLICY

Hawaiian Ethos is always willing and open to discuss business-related concerns as well as suggestions for improvements that are in relations to the well-being of the company and its successes.

Please contact the Director of Human Resources with any questions, concerns, and suggestions and we will be happy to address them.

EMPLOYEE IDENTIFICATION CARD REQUIREMENTS

In order to protect the welfare of the clients, customers, employees, and resources of Hawaiian Ethos, it is our policy– as well as a requirement under the law – to require employees to possess a Hawaii Department Health-issued Employee Identification Card. An employee of Hawaiian Ethos must keep his or her employee identification card visible at all times when on any Hawaiian Ethos property and during the transportation of medical cannabis to a distribution facility.

Applicants who apply for positions in which the essential job duties require the use of vehicles must have a driving record in good standing. A driving record check will be made only after a

conditional job offer has been made pending the results of the check. For all employees, continued use of company vehicles is contingent on their maintenance of a good driving record, which will be assessed annually.

DRUG TESTING

In order to promote and maintain the well-being of our work environment, Hawaiian Ethos refrains from employing individuals use illegal drugs. Due to this policy, Hawaiian Ethos reserves the right to mandate any and all employees to adhere to a drug test as a continuing practice throughout the duration of their employment.

Drug tests will be administered as part of the application process as well as once they have been offered an employment opportunity. Refusal to submit initial drug test, or results testing positive for illegal drug use will result in denial of employment. Employees refusing to submit to a drug test, or employees who test positive, may be suspended from duty pending further investigation and subject to disciplinary action, up to and including termination of employment.

MEDICAL EXAMINATIONS

Purpose: Hawaiian Ethos requires current employees and applicants to whom a conditional offer of employment has been extended to undergo medical examinations whenever management determines that these are necessary for the safe operation of the organization or job-related as consistent with business necessity.

Scope: Successful applicants for employment may be required, as a condition of employment, to take a medical examination to establish their fitness to perform the jobs for which they have applied without endangering the health and safety of themselves or others. If management determines that an examination is appropriate to a particular position, all applicants for the job to whom a conditional offer of employment has been made should be examined.

Employees may be required to have a medical examination on other occasions when the examination is job-related and consistent with business necessity. For example, a medical examination may be required when an employee is exposed to toxic or unhealthful conditions, requests an accommodation for a particular disability, or has a questionable ability to perform essential job functions due to a medical condition.

Cost of Required Examinations: Medical examinations required by Hawaiian Ethos will be paid for by Hawaiian Ethos and will be performed by a physician or licensed medical facility designated or approved by the company. Medical examinations paid for by Hawaiian Ethos are the property of the company, and the examination records will be treated as confidential and kept in separate medical files. However, records of specific examinations, if required by law or regulation, will be made available to the employee, persons designated and authorized by the employee, public agencies, relevant insurance companies or the employee's doctor.

Use of Prescription Drugs at Work: Employees who need to use prescription or nonprescription legal drugs while at work must report this requirement to their supervisor if the use might impair their ability to perform the job safely. Depending on the circumstances, employees may be reassigned, prohibited from performing certain tasks or prohibited from working if they are determined to be unable to perform their jobs safely while taking prescription or nonprescription legal drugs.

CHARACTER REFERENCE CHECKS

Hawaiian Ethos is committed to a building a quality team if employees, skilled and cable of the position which they are hired for. To ensure that individuals who join our team maintain a safe and productive work environment, we maintain the right to perform pre-employment character reference on all applicants who accept employment opportunities from Hawaiian Ethos, which may also include criminal record check. Please note that criminal convictions do not automatically bar an applicant from employment. Background checks for Hawaiian Ethos are subject to include verification of any information on the applicant's resume or application form.

Should there be information obtained from these reference check that will lead to denial of employment by Hawaiian Ethos, the applicant will be provided a copy of the report and subsequently have the opportunity to dispute the report's accuracy.

CONFLICT OF INTEREST

Employees of Hawaiian Ethos must avoid any relationships or activity that could impair, outwardly or internally, their ability to act objectively in their position. Employees should not find themselves in any situation in which their exterior responsibilities affect any aspect of their work within Hawaiian Ethos. In addition, employees should not utilize company property, information, or business opportunities in any instance for personal gain.

Conflicts of interest in Hawaiian Ethos may arise in the a diverse situations, therefore we insist that our employees be mindful and aware under all circumstances. Such circumstances include but are not limited to hiring and supervising family members; accepting gifts, favors, and /or discounts; being employed by and/or acting as a consultant to a competitor, serving on the board of a competitor's company. Should an employee at Hawaiian Ethos find themselves an a situation that may involve any conflicts of this nature, employees must notify their supervisor or the Director of Human Resources so as to preemtively mitigate any potential conflict.

OUTSIDE EMPLOYMENT

Employees of Hawaiian Ethos are permitted to engage in outside work or to hold other jobs, subject to certain restrictions as outlined below.

Activities and conduct away from the job must not compete with, conflict with or compromise Hawaiian Ethos interests or adversely affect job performance and the ability to fulfill all job responsibilities. Employees are prohibited from performing any services for customers on nonworking time that are normally performed by Hawaiian Ethos. This prohibition also extends to the unauthorized use of any company tools or equipment and the unauthorized use or application of any confidential information. In addition, employees are not to solicit or conduct any outside business during paid working time.

Employees are cautioned to carefully consider the demands that additional work activity will create before accepting outside employment. Outside employment will not be considered an excuse for poor job performance, absenteeism, tardiness, leaving early, refusal to travel or refusal to work overtime or different hours. If Hawaiian Ethos determines that an employee's outside work interferes with performance, the employee may be asked to terminate the outside employment.

Employees who have accepted outside employment may not use paid sick leave to work on the outside job. Fraudulent use of sick leave will result in disciplinary action up to and including termination.

EMPLOYEE SUGGESTIONS

As employees of Hawaiian Ethos you have the opportunity to contribute to our future success and growth by submitting suggestions for practical work-improvement or cost-savings ideas.

All regular employees are eligible to participate in the suggestion program.

A suggestion is an idea that will benefit Hawaiian Ethos by solving a problem, reducing costs, improving operations or procedures, enhancing customer service, eliminating waste or spoilage, or making Hawaiian Ethos a better or safer place to work. Statements of problems without accompanying solutions, or recommendations concerning co-workers and management are not appropriate suggestions.

EMPLOYEE COMPLAINTS

Hawaiian Ethos strives to openly communicate with all employees. Any concerns employees have should be promptly reported to management so that a solution may be devised.

Examples of some complaints employees may have:

- Suggestions for improvement
- Concerns about working conditions
- Issues with co-workers
- Concerns about treatment at work

When a complaint is voiced, management will do its best to remedy the situation. While every employee may not be satisfied with every solution, employee's input is valued and Hawaiian Ethos wants to foster an environment where all employees feel comfortable reporting their concerns.

Please contact your supervisor or Human Resources with all complaints.

EMPLOYEE ORIENTATION

For all employees hired by Hawaiian Ethos, the first 90 days of employment are considered to be an orientation period. During this time, the employee will undergo training and orientation as directed by the employee's supervisor. The employee's supervisor will also monitor the employee's performance during this time period.

During the first 90 days of employment, the employee is encouraged and expected to ask questions concerning his or her job responsibilities, and to determine if he or she is satisfied with the position. If the employee's job performance is found to be unsatisfactory by his or her supervisor at any time during the first 90 days of employment, the employment will be terminated.

All new employees will receive a confidential performance evaluation from their supervisor at the end of the orientation period. At that time, the employee will be eligible for employee benefits.

TRAINING AND PROFESSIONAL DEVELOPMENT

Hawaiian Ethos is dedicated to provide continual opportunities for education and training and professional development in all relevant fields of study fields of study for all employees. In doing so, Hawaiian Ethos will not only provide a thorough training for new hires with all the information and skills necessary to be successful in their position.

Employee training and development is essential in responding to the rapid business changes that occur due to continual economic fluctuations, global economy, enhanced technology, and cultural and demographic factors. Hawaiian Ethos strongly encourages the training and development of employees to aid them in improving their ability to succeed. Hawaiian Ethos employees receive job-specific training regularly.

Hawaiian Ethos sees the benefit in continuing training and staying current on relevant information to give our employees and therefore our customer base the best possible services to the best of our ability.

EMPLOYMENT OF RELATIVES

Hawaiian Ethos wants to ensure that corporate practices do not create situations such as conflict of interest or favoritism. This extends to practices that involve employee hiring, promotion and transfer. Close relatives, partners, those in a dating relationship or members of the same household are not permitted to be in positions that have a reporting responsibility to each other. Close relatives are defined as husband, wife, domestic partner, father, mother, father-in-law, mother-in law, grandfather, grandmother, son, son-in-law, daughter, daughter-in law, uncle, aunt, nephew, niece, brother, sister, brother-in-law, sister-in-law, step relatives, cousins and domestic partner relatives.

If employees begin a dating relationship or become relatives, partners or members of the same household and if one party is in a supervisory position, that person is required to inform management and Human Resources of the relationship.

Hawaiian Ethos reserves the right to apply this policy to situations where there is a conflict or the potential for conflict because of the relationship between employees, even if there is no direct-reporting relationship or authority involved.

EMPLOYMENT OF MINORS

Hawaiian Ethos only hires individuals who are legally authorized to work as provided by federal, state and county laws. In accordance with Hawaii state law, Hawaiian Ethos will only employ individuals 21 years of age and above.

IMMIGRATION LAW COMPLIANCE

The United States immigration laws require that individuals complete an employment verification procedure before they are permitted to work. Any individual who has not completed the specified form (Form I-9) and provided the appropriate verification will not be permitted to work and will not be paid until the procedure is completed.

WHISTLEBLOWER POLICY

Hawaiian Ethos prides ourselves on our high standards of conduct and ethics and place the utmost importance on maintaining those standards. The Whistle Blower Policy is designed to encourage all employees to report any dishonest or fraudulent behaviors (i.e. to act as a "whistleblower") that contradict the act of upholding these values with integrity and ethical foresight, regardless of their position. Process of filing a complaint may include but not limited to:

- Reporting a good faith complaint regarding suspected employee in violation of the law or involved in fraudulent behavior;
- Making a good faith complaint regarding accounting, internal accounting controls, or auditing matters that may lead to incorrect, or misrepresentations in, financial accounting;
- Providing information to assist in an investigation regarding violations of the law; or
- Files, testifies, or participates in a proceeding in relation to alleged violations of the law.

Reports should include any information to substantiate concerns, as well as adequate information to allow an appropriate investigation. Hawaiian Ethos encourages all reports, including anonymous reports, however if these anonymous reports do not have sufficient information supervisors and/or Human Resources will not be able to follow through with an investigation.

Hawaiian Ethos does not tolerate any retaliation against "whistleblowers," and will therefore do our best to protect such individuals against all counteractions. Whistleblower concerns will be handled with confidentiality, discretion and care to the extent allowed by circumstances and the law.

EMPLOYEE BENEFITS

PERFORMANCE AND SALARY REVIEW

Performance appraisals are conducted on an annual cycle. Employees will receive a performance review on the established date each year. The performance appraisal will be discussed, and both the employee and manager will sign the form to ensure that all strengths, areas for improvement and job goals for the next review period have been clearly communicated. Performance evaluation forms will be retained in the employee's personnel file.

Merit increases are based on company performance and financials and are not guaranteed. A performance review does not always result in an automatic salary increase. The employee's overall performance and salary level relative to his/her position responsibilities are evaluated to determine if a salary increase would be warranted.

Budget allocations for merit increases are planned for and allocated before the start of each calendar year. The annual salary increase program is designed to assist management in planning and allocating merit and promotional increases that reward individual performance, that are market competitive and that are internally equitable.

Salary adjustments are occasionally requested or warranted at times other than the employee's scheduled annual salary reviews. Out-of-cycle salary increases must be pre-approved by the department manager, Human Resources and Hawaiian Ethos CEO. Human Resources will review all salary increase/adjustment requests to ensure internal equity and compliance with company policies and guidelines.

HOLIDAYS

Hawaiian Ethos recognizes nine paid holidays each year:

- New Year's Day
- Martin Luther King Jr. Day
- Presidents Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Day After Thanksgiving
- Christmas Day

Should a holiday fall on a weekend, the holiday will be observed on the work day closest to the holiday.

Time off may be granted to employees who desire to observe a religious holiday that is not recognized by Hawaiian Ethos.

VACATION

All full- and part-time Hawaiian Ethos employees are eligible for vacation leave benefits. Part-time employees working 20 to 29 hours per week will earn vacation on a prorated basis. Full-time employees are those working 30-plus hours per week. Vacation accrual begins on the first day of full- or part-time employment. Vacation is accrued according to the schedule in this policy. Vacation can be used only after it is earned. Vacation leave will not be earned during an unpaid leave of absence.

To schedule vacation time, Hawaiian Ethos employees should submit a completed leave form to the supervisor at least two weeks before the requested leave. Employees must ensure that they have enough accrued leave available to cover the dates requested. Requests will be approved based on a number of factors, including department operating and staffing requirements. The supervisor should return the leave request to the employee within three business days of the date it is submitted indicating that the request has been approved or denied. If the request for vacation leave is denied, the supervisor should provide an appropriate reason on the form returned to the employee.

Vacation will be paid at the employee's base rate at the time the leave is taken. Vacation pay is not included in overtime calculation and does not include any special forms of compensation such as incentives, commissions, bonuses or shift differentials. If a holiday falls during the employee's vacation, the day will be charged to holiday pay rather than to vacation pay.

Leave taken beyond an employee's available vacation balance may be unpaid unless otherwise required under state or federal law.

If employment is terminated, accrued unused vacation leave earned through the last day of active employment will be paid at the employee's base rate of pay at termination. In the event of the employee's death, earned unused vacation time will be paid to the employee's estate or designated beneficiary.

SICK PAY

All full-time, regular employees at Hawaiian Ethos accrue sick leave from the date of hire, for a total of 10 days per year. Part-time, regular employees accrue sick leave from the date of hire, in a prorated amount using the full-time total of 10 days per year and the average number of hours the part-time employee works per week.

Sick leave may be used for an employee's personal illness, well-care, and medical and dental appointments. Sick leave may also be used for illness and well-care in an employee's immediate family.

Sick leave may be accrued to a maximum of 120 hours. Sick leave may not be used before accrual. If sick leave is exhausted, any available vacation hours will be used in its place. An employee who has a sick leave absence in excess of three consecutive working days must present medical documentation for the absence. Employees are not paid for unused sick leave upon termination of employment.

JURY DUTY

Upon receipt of notification from the state or federal courts of an obligation to serve on a jury, employees of Hawaiian Ethos must notify their supervisor and provide him/her with a copy of the jury summons. Hawaiian Ethos will pay regular full-time and regular part-time employees for time off for jury duty up to one week of pay.

VOTING TIME

All employees should be able to vote either before or after regularly assigned work hours. However, when this is not possible due to work schedules, employees will receive up to three hours during the work day to vote. Time off for voting should be reported and coded appropriately on timekeeping records.

Hawaiian Ethos employees who are chosen to serve as election officials at polling sites will be permitted to take required time off to serve in this capacity. It is incumbent on employees who are chosen to act as election officials to notify their manager a minimum of seven days in advance of their need for time off in order to accommodate the necessary rescheduling of work periods. Time engaged as an election official should be reported and coded appropriately on timekeeping records.

MILITARY LEAVE

Hawaiian Ethos is committed to protecting the job rights of employees absent on military leave. In accordance with federal and state law, it is Hawaiian Ethos' policy that no employee or prospective employee will be subjected to any form of discrimination on the basis of that person's membership in or obligation to perform service for any of the Uniformed Services of the United States. Specifically, no person will be denied employment, reemployment, promotion or other benefit of employment on the basis of such membership. Furthermore, no person will be subjected to retaliation or adverse employment action because such person has exercised his or her rights under applicable law or company policy. If any employee believes that he or she has been subjected to discrimination in violation of Hawaiian Ethos policy, the employee should immediately contact Human Resources.

Employees taking part in a variety of military duties are eligible for benefits under this policy. Such military duties include leaves of absence taken by members of the uniformed services, including Reservists and National Guard members, for training, periods of active military service and funeral honors duty, as well as time spent being examined to determine fitness to perform such service. Subject to certain exceptions under the applicable laws, these benefits are generally limited to five years of leave of absence.

Employees requesting leave for military duty should contact Human Resources to request leave as soon as they are aware of the need for leave. For request forms and detailed information on eligibility, employee rights while on leave and job restoration upon completion of leave, contact Human Resources for all company policies, procedures and forms.

BEREAVEMENT LEAVE

A Hawaiian Ethos employee who wishes to take time off due to the death of an immediate family member should notify his or her supervisor immediately.

Bereavement leave will be granted unless there are unusual business needs or staffing requirements.

Paid bereavement leave is granted according to the following schedule:

- Employees are allowed five days of paid leave in the event of the death of the employee's spouse, child, father, father-in-law, mother, mother-in-law, brother, sister, stepfather, stepmother, stepbrother, stepsister, stepson or stepdaughter.

- Employees are allowed three days of paid leave in the event of death of the employee's brother-in-law, sister-in-law, son-in-law, daughter-in-law, aunt, uncle, grandparent, grandchild or spouse's grandparent.
- Employees are allowed up to four hours of bereavement leave to attend the funeral of an employee or retiree of Hawaiian Ethos

HEALTH INSURANCE

Hawaiian Ethos employees will receive health insurance through Anthem Blue Cross. This will be available to any full-time employee who has worked thirty (30) or more hours per week or averaged thirty (30) or more hours per week for the reporting period Hawaiian Ethos will also make contributions to the Fund on behalf of any regular part-time employee working less than thirty (30) hours per week. Hawaiian Ethos will pay 100% of the contributions for full-time and part-time participants subsequent to the initial probation period.

WORKERS' COMPENSATION

Hawaiian Ethos will provide workers' compensation, a type of accident and injury insurance, that compensates an employee for lost time, medical expenses and loss of life or dismemberment from an

injury arising out of or in the course of work. Employees must report any work-related injury or disease immediately (or as soon as practicable) to their supervisor and Human Resources so that the necessary paperwork can be completed in a timely manner. Please note that under state laws, employees who fail to report work-related injuries in a timely manner may see a reduction or denial of their workers' compensation benefits.

Employees returning to work from an injury or illness for which they were receiving workers' compensation must provide proof of rehabilitation or treatment from a licensed physician and verification that they are able to complete all job-related tasks. In the event that the employee returns to work under strict medical restrictions, Hawaiian Ethos will make every reasonable effort to accommodate the employee's work ability and job responsibilities. Once a physician removes work restrictions, the employee is expected to perform his or her regular duties and will no longer receive workers' compensation benefits.

TIME KEEPING AND PAYROLL

TIME KEEPING

A work hour is any hour of the day that is worked and should be recorded to the nearest tenth of an hour. The workday is defined as the 24-hour period starting at 12:00 a.m. and ending at 11:59 p.m. The workweek covers seven consecutive days beginning on Sunday and ending on Saturday. The usual workweek period is 40 hours.

Overtime is defined as hours worked by an hourly or nonexempt employee in excess of 40 hours in a workweek and should be recorded to the nearest tenth of an hour. Overtime must be approved in advance by the manager to whom the employee reports.

Employees will submit their time record weekly as directed by their manager. Each employee is to maintain an accurate daily record of his or her hours worked. All absences from work schedules should be appropriately recorded.

PAY DAYS

All employees are paid biweekly every Friday. Each paycheck will include earnings for all work performed through the end of the previous payroll period.

In the event that a regularly scheduled payday falls on a day off such as a weekend or holiday, employees will receive pay on the last day of work before the regularly scheduled payday.

If the normal payday falls on a company-recognized holiday, paychecks will be distributed one workday before the aforementioned schedule.

Employees may be paid by check or through direct deposit of funds to either a savings or checking account at the financial institution of their choice.

In the event of a lost paycheck, the Human Resource department must be notified in writing as soon as possible and before a replacement check can be issued. In the event the lost paycheck is recovered and Hawaiian Ethos identifies the endorsement as that of the employee, the employee must remit the amount of the replacement check to Hawaiian Ethos within 24 hours of the time it is demanded.

If an employee's marital status changes or the number of exemptions previously claimed increases or decreases, a new Form W-4 must be submitted to the Human Resource department.

Except for extreme emergencies and vacation pay, no salary advances will be made.

OVERTIME

Nonexempt employees who exceed 40 hours of work time in a workweek will be paid time and one half. Paid leave, such as holiday, sick or vacation pay, does not apply toward work time. The workweek begins at 12:00 a.m. on Sunday morning and ends at 11:59 p.m. on Saturday night. Supervisors are required to obtain approval from managers prior to the use of overtime.

Employees who anticipate the need for overtime to complete the week's work must notify the supervisor in advance and obtain approval before working hours that extend beyond their normal schedule. During busy periods employees may be required to work extended hours.

ON CALL PAY (NON-EXEMPT EMPLOYEES)

An on-call employee who is called back to work outside his or her normal work schedule shall be paid for the time worked or a minimum of two (2) hours, whichever is greater.

Time worked while on call will be calculated at the employee's regular rate of pay. If an employee is called back to work, he or she will be paid for travel time. If an on-call employee is not called back, no pay will be earned. Overtime compensation is applicable only when total hours worked exceed 40 hours in a workweek.

EMPLOYEE TRAVEL TIME AND REIMBURSEMENTS

Employees will be reimbursed for reasonable expenses incurred in connection with approved travel on behalf of Hawaiian Ethos.

Travelers seeking reimbursement should incur the lowest reasonable travel expenses and exercise care to avoid the appearance of impropriety. If a circumstance arises that is not specifically covered in the travel policies, the most conservative course of action should be adopted.

Travel for staff must be authorized in advance. Travelers should verify that planned travel is eligible for reimbursement before making travel arrangements. Upon completion of the trip, and within 30 days, the traveler must submit a Travel Reimbursement Form and supporting documentation to obtain reimbursement of expenses.

Exempt employees will be paid their regular salary for weeks in which they travel. Nonexempt employees will be paid for travel time in accordance with federal and state wage payment laws.

GARNISHMENTS

Hawaiian Ethos honors federal and state required withholdings from your paycheck upon court order or for the purpose of child support, or repayment of unpaid student loans or federal, state, local municipality or school taxes.

Upon Company receipt of a notice of wage demand, the employee will be immediately notified of the name of the creditor, the amount claimed and whether the demand is based on a wage deduction or a wage assignment. All garnishments will abide by applicable withholding limits as prescribed by law.

Hawaiian Ethos does not discriminate or take any adverse action against an employee whose wages are subject to garnishment.

PAY CORRECTIONS

Hawaiian Ethos works diligently to ensure that all employees receive paychecks on time, with the correct wages.

In the unlikely event that there is an error in the amount of pay, the employee should promptly bring the discrepancy to the attention of the Payroll Director so that corrections can be made as quickly as possible.

DEMOTIONS

Occasions may arise in Hawaiian Ethos when a demotion, or a downgrade of responsibilities and/or wages. Demotions may be proposed for a number of different reasons, including poor employee performance, disciplinary actions, position elimination or organizational restructuring,

and at times an employee-desired reduction in responsibility. Demoting is the best interest of Hawaiian Ethos and the employee in question as an alternative to laying off or termination of employment.

Each circumstance will be carefully considered prior to determining that a demotion is the appropriate action. Subsequently the employee in question will discuss the available role and responsibilities differing from previous contracts.

EMPLOYMENT STATUS AND RECORD KEEPING

EMPLOYMENT CLASSIFICATION

All employees are designated as either nonexempt or exempt under state and federal wage and hour laws. The following is intended to help employees understand employment classifications and employees' employment status and benefit eligibility. These classifications do not guarantee employment for any specified period of time. The right to terminate the employment-at-will relationship at any time is retained by both the employee and Hawaiian Ethos.

Nonexempt employees are employees whose work is covered by the Fair Labor Standards Act (FLSA). They are NOT exempt from the law's requirements concerning minimum wage and overtime.

Exempt employees are generally managers or professional, administrative or technical staff who ARE exempt from the minimum wage and overtime provisions of the FLSA. Exempt employees hold jobs that meet the standards and criteria established under the FLSA by the U.S. Department of Labor.

Hawaiian Ethos has established the following categories for both nonexempt and exempt employees:

- *Regular, full time*: Employees who are not in a temporary status and who are regularly scheduled to work the company's full-time schedule of 37.5 hours per week. Generally, these employees are eligible for the full benefits package, subject to the terms, conditions and limitations of each benefits program.

- *Regular, part time*: Employees who are not in a temporary status and who are regularly scheduled to work less than the full-time schedule but at least 20 hours each week. Regular, part-time employees are eligible for some of the benefits offered by Hawaiian Ethos subject to the terms, conditions and limitations of each benefits program.

- *Temporary, full time*: Employees who are hired as interim replacements to temporarily supplement the workforce or to assist in the completion of a specific project and who are

temporarily scheduled to work Hawaiian Ethos' full-time schedule for a limited duration. Employment beyond any initially stated period does not in any way imply a change in employment status.

- *Temporary, part time*: Employees who are hired as interim replacements to temporarily supplement the workforce or to assist in the completion of a specific project and who are temporarily scheduled to work less than Hawaiian Ethos full-time schedule for a limited duration. Employment beyond any initially stated period does not in any way imply a change in employment status.

Temporary workers are not eligible for company benefits unless specifically stated otherwise in company policy or are deemed eligible according to plan documents.

WORK SCHEDULES:

Work schedules be determined once officially hired into Hawaiian Ethos team. While we aim to have consistently regular schedule for all of our team members Hawaiian Ethos understands that adjustments are inevitable. Schedules will be available on a weekly basis.

Should you have any questions regarding scheduling please address any concerns with your supervisor. While there is no guarantee that these requests will be honored, please inform your supervisor of any changes that you may need in advance so that other scheduling can be arranged.

PERSONNEL FILES

Hawaiian Ethos strives to keep accurate and up-to-date personnel records. Employee personnel files may include the following:

- Employee demographic information
- Job application
- Position description
- Resume
- Training records
- Salary history
- Disciplinary action records
- Performance reviews
- Coaching and mentoring records

To ensure the accuracy of your personnel records, please notify us immediately of the following changes:

- Name
- Address
- Telephone number
- Marital status
- Dependent status
- Tax status

Personnel records are confidential and are not available to anyone outside of Hawaiian Ethos, unless you have personally authorized their release. A release may not be required when reporting certain information as required by law or when an authorized governmental agency inspects certain records. To obtain access to your records, contact Human Resources.

SALARY ADMINISTRATION

The salary administration program at Hawaiian Ethos was created to achieve consistent pay practices, comply with federal and state laws, mirror our commitment to Equal Employment Opportunity, and offer competitive salaries within our labor market. Because recruiting and retaining talented employees is critical to our success, Hawaiian Ethos is committed to paying its employees equitable wages that reflect the requirements and responsibilities of their positions and are comparable to the pay received by similarly situated employees in other organizations in the area.

Compensation for every position is determined by several factors, including the essential duties and responsibilities of the job, and salary survey data on pay practices of other employers. Hawaiian Ethos periodically reviews its salary administration program and restructures it as necessary. Merit-based pay adjustments may be awarded in conjunction with superior employee performance documented by the performance evaluation process.

Employees should bring their pay-related questions or concerns to the attention of their immediate supervisors, who are responsible for the fair administration of departmental pay practices. The Director of Human Resources is also available to answer specific questions about the salary administration program.

INTRODUCTORY PERIOD

The introductory period is intended to give new employees the opportunity to demonstrate their ability to achieve a satisfactory level of performance and to determine whether the new position meets their expectations. Hawaiian Ethos uses this period to evaluate employee capabilities, work habits, and overall performance. Either the employee or Hawaiian Ethos may end the employment relationship at will at any time during or after the introductory period, with or without cause or advance notice.

All new and rehired employees work on an introductory basis for the first 90 calendar days after their date of hire. Employees who are promoted or transferred within Hawaiian Ethos must complete a secondary introductory period of the same length with each reassignment to a new position. Any significant absence will automatically extend an introductory period by the length of the absence. If Hawaiian Ethos determines that the designated introductory period does not allow sufficient time to thoroughly evaluate the employee's performance, the introductory period may be extended for a specified period.

In cases of promotions or transfers within Hawaiian Ethos, an employee who, in the sole judgment of management, is not successful in the new position can be removed from that position at any time during the secondary introductory period. If this occurs, the employee may be allowed to return to his or her former job or to a comparable job for which the employee is qualified, depending on the availability of such positions and Hawaiian Ethos' needs.

Upon satisfactory completion of the initial introductory period, employees enter the "regular" employment classification.

During the initial introductory period, new employees are eligible for those benefits that are required by law, such as workers' compensation insurance and Social Security. After becoming regular employees, they may also be eligible for other Hawaiian Ethos -provided benefits, subject to the terms and conditions of each benefits program. Employees should read the information for each specific benefits program for the details on eligibility requirements.

Benefits eligibility and employment status are not changed during the secondary introductory period that results from a promotion or transfer within Hawaiian Ethos.

HIPAA

To improve the efficiency and effectiveness of the health care system, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Public Law 104-191, included Administrative Simplification provisions that required HHS to adopt national standards for electronic health care transactions and code sets, unique health identifiers, and security. At the same time, Congress recognized that advances in electronic technology could erode the privacy of health information. Consequently, Congress incorporated into HIPAA provisions that mandated the adoption of Federal privacy protections for individually identifiable health information.

HHS published a final **Privacy Rule** in December 2000, which was later modified in August 2002. This Rule set national standards for the protection of individually identifiable health information by three types of covered entities: health plans, health care clearinghouses, and health care providers who conduct the standard health care transactions electronically.

Compliance with the Privacy Rule was required as of April 14, 2003 (April 14, 2004, for small health plans).

HHS published a final **Security Rule** in February 2003. This Rule sets national standards for protecting the confidentiality, integrity, and availability of electronic protected health information. Compliance with the Security Rule was required as of April 20, 2005 (April 20, 2006 for small health plans).

The **Enforcement Rule** provides standards for the enforcement of all the Administrative Simplification Rules.

HHS enacted a final Omnibus rule that implements a number of provisions of the HITECH Act to strengthen the privacy and security protections for health information established under HIPAA, finalizing the Breach Notification Rule.

View the Combined Regulation Text (as of March 2013). This is an unofficial version that presents all the HIPAA regulatory standards in one document. The official version of all federal regulations is published in the Code of Federal Regulations (CFR). View the official versions at 45 C.F.R. Part 160, Part 162, and Part 164.

Your Privacy Rights:

At Hawaiian Ethos, you have the following rights:

- The right to authorize disclosure of your protected health information to third parties;
- The right to revoke previously authorized disclosures;
- The right to request limited disclosure of your health information;
- The right to inspect and copy your protected health information;
- The right to amend information;
- The right to request a listing of personnel who have accessed your information; and
- The right to request to be placed on a mailing list to receive notice of updates to

If you have any questions regarding this material you, please do not hesitate to consult your supervisor and/or the director of HR.

***The Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996 (HIPAA, Title II) require the Department of Health and Human Services (HHS) to adopt national standards for electronic health care transactions and national identifiers for providers, health plans, and employers. To date, the implementation of HIPAA standards has increased the use of electronic data interchange. Provisions under the Affordable Care Act of 2010 will further these increases and include requirements to adopt:

- operating rules for each of the HIPAA covered transactions
- a unique, standard Health Plan Identifier (HPID)

- a standard and operating rules for electronic funds transfer (EFT) and electronic remittance advice (RA) and claims attachments.

In addition, health plans will be required to certify their compliance. The Act provides for substantial penalties for failures to certify or comply with the new standards and operating rules.

For more information regarding HIPAA including additional provisions under the Patient Protections and Affordable Care Act (Affordable Care Act or ACA) of 2010, go to the "Related Links Outside CMS".

EMPLOYEE DATA PROTECTION

In connection with your employment, Hawaiian Ethos may ask you to provide certain information, including, but not limited to, your name, mailing address, telephone numbers, citizenship, country of residence, country of origin, gender, birth date, marital status, name of dependents, birth date of dependents, occupation of dependents and national identification number. Additionally we may maintain information relating to your employment with Hawaiian Ethos including, but not limited to, your employee identification number, business unit/division of employment, department, physical work location, job code, compensation rate, supervisor, work shift, hire and termination date, appraisal dates and ratings, training, skills, educational background, language proficiency, certifications and licenses.

The information collected by Hawaiian Ethos will be used for various administrative and record keeping purposes by Hawaiian Ethos.

Disclosure of Employee Information

Employee Information will be disclosed to a limited number of Hawaiian Ethos employees whose job necessitates that they maintain, compile, or otherwise have access to Employee Information; these employees are authorized by Hawaiian Ethos and have specific employee data responsibilities. Hawaiian Ethos may also disclose Employee Information to a third party when it believes that such disclosure is reasonably necessary to comply with any law or to protect the rights, property or safety of another person. Additionally, Hawaiian Ethos may disclose Employee Information to a third party employee benefit provider, including but not limited to, employee benefit providers and payroll services. If Hawaiian Ethos does disclose information to third party, we will ensure that the third party either subscribes to the privacy principles or is subject to adhere to a written agreement with such third party which requires the third party to provide at least the same level of privacy protection as is required by the relevant Principles. Lastly, Hawaiian Ethos may transfer or otherwise disclose Employee Information in connection with the sale of its business to a third party.

Employee Consent:

Unless you withdraw your consent, in writing, you agree to and accept the proposed use, disclosure and transmission of your Employee Information by Hawaiian Ethos as set forth in this Policy. Upon any modification of this Policy, Hawaiian Ethos will prominently post a revised Policy within five (5) business days of its adoption and provide employees with an opportunity to withdraw his or her consent to any new use or disclosure of his or her Employee Information. If any employee objects to Hawaiian Ethos's collection of information, use, disclosure or transmission of certain Employee Information, Hawaiian Ethos will make reasonable efforts to address the concerns of the employee. In no case will an employee be subject to sanction or retaliation for objecting to the collection, use, disclosure or transmission of Employee Information. Any employee who withholds Employee Information or prohibits its collection, use, disclosure or transmission, however, may be disadvantaged as a result of not making the information available. For example, unwillingness to provide information required to use a service or receive a benefit may make an employee ineligible for that service or benefit.

Your Rights Regarding Your Employee Information

Although your Employee Information is the physical property of Hawaiian Ethos, the information contained in the record belongs to **you**. Upon request in a reasonable notice period, each employee has the right to:

Obtain a copy of all Hawaiian Ethos Protection Policy upon request.

Inspect his or her Employee Information and be able to correct or amend information where it is inaccurate, except where the burden or expense of providing access would be disproportionate to the risks to the individual's privacy in the case in question, or where the rights of persons other than the individual would be violated. All requests to inspect, correct, amend, or delete information must be submitted in writing to Hawaiian Ethos' Director of Human Resources.

- Review Hawaiian Ethos' process and procedures for electronically transmitting Employee Information, as set forth in Practice for Protection and Transmission of Employee Data as well as the Hawaiian Ethos' Policy Statements referred to therein.

- Withdraw his or her consent to the continued or future use and disclosure of his or her Employee Information, except as to that Employee Information that Hawaiian Ethos determines to be necessary for continued employment.

- In the event that Hawaiian Ethos modifies the terms of this Policy, we will promptly post a revised which describes all intended uses and disclosures of Employee Information, within five (5) business days of its adoption, and provide employees with an opportunity to withdraw his or her consent to any new use or disclosure of his or her Employee Information.

Complaints

If you believe Hawaiian Ethos has been breached any of its policies by permitting an unauthorized use, disclosure or transmission of your Employee Information, you may contact or

file a complaint with your supervisor. If you are not satisfied with the response or action taken by your supervisor, all such complaints and concerns may then be directed to the Director of Human Resources. You will not be penalized for filing a complaint.

JOB DESCRIPTIONS

Hawaiian Ethos does it's very best to create opportunities for its staff to succeed. In doing so, it is incredibly important to communicate exactly what is expected of each of our employees. Therefore, Hawaiian Ethos supervisors perform frequent and thorough check in's with employees on progress of projects as well as accuracy of job descriptions. As often as necessary, job descriptions will be modified by supervisors to fit job fulfillment. In addition, Hawaiian Ethos employees may be asked to contribute to these modifications in order to draft accurate expectations.

These job descriptions outlined be employer and employee are not bound or absolute. Hawaiian Ethos employees may be asked to perform tasks that are not outlined in their job descriptions from time to time, and are expected to comply. Should employees choose not to fulfill these tasks outside of their job descriptions, they may be subject to disciplinary action.

HIRING PROCESS

Hawaiian Ethos relies upon the accuracy of information contained in the employment application, as well as the accuracy of other data presented throughout the hiring process and employment. Any misrepresentations, falsifications, or material omissions in any of this information or data may result in the exclusion of the individual from further consideration for employment or, if the person has been hired, termination of employment.

REHIRING

Former employees who left Hawaiian Ethos in good standing and were classified as eligible for rehire may be considered for reemployment. An application must be submitted to the Human Resource department, and the applicant must meet all minimum qualifications and requirements of the position, including any qualifying exam, when required.

Supervisors must obtain approval from the Human Resource director or designee prior to rehiring a former employee. Rehired employees begin benefits just as any other new employee. Previous tenure will not be considered in calculating longevity, leave accruals or any other benefits.

An applicant or employee who is terminated for violating policy or who resigned in lieu of termination from employment due to a policy violation will be ineligible for rehire.

INTERNAL TRANSFER AND PROMOTIONS:

Employees with more than twelve months of service at Hawaiian Ethos may request consideration to transfer to other jobs as vacancies become available and will be considered along with other applicants. At the same time, Hawaiian Ethos may initiate transfers of employees between departments and facilities to meet specified work requirements and reassignment of work requirements. Hawaiian Ethos offers employees promotions to higher-level positions when appropriate. Management prefers to promote from within and may first consider current employees with the necessary qualifications and skills to fill vacancies above the entry level, unless outside recruitment is considered to be in Hawaiian Ethos' best interest.

To be considered, employees must have held their current position for at least 12 months, have a satisfactory performance record and have no disciplinary actions during the last 12 months. Management retains the discretion to make exceptions to the policy.

ATTENDANCE AND PUNCTUALITY

It is important for all employees to project a professional image while at work by being appropriately attired. Hawaiian Ethos employees are expected to be neat, clean and well groomed while on the job. Clothing must be consistent with the standards for a business environment and must be appropriate to the type of work being performed.

All employees must be covered from shoulders to knees at all times (no see-through or sleeveless clothing is permitted at any time). Natural and artificial scents may become a distraction from a well-functioning workplace and are also subject to this policy.

Hawaiian Ethos is confident that employees will use their best judgment regarding attire and appearance. Management reserves the right to determine appropriateness. Any employee who is improperly dressed will be counseled or in severe cases may be sent home to change clothes. Continued disregard of this policy may be cause for disciplinary action, which may result in termination.

SEPARATION OF EMPLOYMENT

Separation of employment within an organization can occur for several different reasons.

Resignation: Although we hope your employment with us will be a mutually rewarding experience, we understand that varying circumstances cause employees to voluntarily resign employment. Resigning employees are encouraged to provide two weeks' notice, preferably in writing, to facilitate a smooth transition out of the organization. Management reserves the right to provide an employee with two weeks' pay in lieu of notice in situations where job or business needs warrant such action. If an employee provides less notice than requested, the employer may deem the individual to be ineligible for rehire depending on the circumstances regarding the notice given.

Retirement: Employees who wish to retire are required to notify their department director and the Human Resource department in writing at least one (1) month before the planned retirement date.

It is the practice of Hawaiian Ethos to give special recognition to employees at the time of their retirement. The recipient must be employed with Hawaiian Ethos for five (5) years to be eligible for a retirement gift. The amount provided for the gift is $100 per year, based on the employee's uninterrupted full-time service. The department director should contact the Human Resource department to purchase a gift or a gift card. Departmental funds may not be used to augment the gift.

Job abandonment: Employees who fail to report to work or contact their supervisor for three (3) consecutive workdays shall be considered to have abandoned the job without notice, effective at the end of their normal shift on the third day. The supervisor shall notify the Human Resource department at the expiration of the third workday and initiate the paperwork to terminate the employee. Employees who are separated due to job abandonment are ineligible to receive accrued benefits and are ineligible for rehire.

Termination: Employees of Hawaiian Ethos are employed on an at-will basis, and the company retains the right to terminate an employee at any time.

Return of Company Property

The separating employee must return all company property at the time of separation, including uniforms, cell phones, keys, PCs and identification cards. Failure to return some items may result in deductions from the final paycheck. An employee will be required to sign the Wage Deduction Authorization Agreement to deduct the costs of such items from the final paycheck.

Exit Interviews

The separating employee shall contact the Human Resource department as soon as notice is given to schedule an exit interview. The interview will be on the employee's last day of work or another day, as mutually agreed on.

Accrued vacation leave will be paid in the last paycheck unless the employee resigned and did not give and work a full two weeks notice.

WORKING CONDITIONS AND HOURS

SAFETY

It is the responsibility of each employee to conduct all tasks in a safe and efficient manner complying with all local, state and federal safety and health regulations and program standards, and with any special safety concerns for use in a particular area or with a client.

Although most safety regulations are consistent throughout each department and program, each employee has the responsibility to identify and familiarize her/himself with the emergency plan for his/her working area. Each facility shall have posted an emergency plan detailing procedures in handling emergencies such as fire, weather-related events and medical crises.

It is the responsibility of the employee to complete an Accident and Incident Report for each safety and health infraction that occurs by an employee or that the employee witnesses. Failure to report such an infraction may result in employee disciplinary action, including termination.

Furthermore, management requires that every person in the organization assumes the responsibility of individual and organizational safety. Failure to follow company safety and health guidelines or engaging in conduct that places the employee, client or company property at risk can lead to employee disciplinary action and/or termination.

The Health and Safety Committee and the safety director shall have the responsibility to develop and the authority to implement the safety and health program in the interest of a safer work environment.

SECURITY

It is Hawaiian Ethos' policy to provide a workplace that is safe and free from all threatening and intimidating conduct. Therefore, Hawaiian Ethos will not tolerate violence or threats of violence of any form in the workplace, at work-related functions or outside of work if it affects the workplace. This policy applies to Hawaiian Ethos employees, clients, customers, guests, vendors and persons doing business with Hawaiian Ethos.

It is a violation of this policy for any individual to engage in any conduct, verbal or physical, that intimidates, endangers or creates the perception of intent to harm persons or property. Examples include but are not limited to:

- Physical assaults or threats of physical assault, whether made in person or by other means (i.e., in writing, by phone, fax or email)
- Verbal conduct that is intimidating and has the purpose or effect of threatening the health or safety of a co-worker
- Any other conduct or acts that management believes represent an imminent or potential danger to workplace safety or security

Anyone with questions or complaints about workplace behaviors that fall under this policy may discuss them with a supervisor or a Human Resources representative. Hawaiian Ethos will promptly and thoroughly investigate any reported occurrences or threats of violence. Violations of this policy will result in disciplinary action, up to and including immediate termination of employees. Where such actions involve non-employees, Hawaiian Ethos will take action appropriate for the circumstances. Where appropriate and/or necessary, Hawaiian Ethos will also take whatever legal actions are available and necessary to stop the conduct and protect Hawaiian Ethos employees and property.

EMERGENCY PROCEDURES

Hawaiian Ethos recognizes that our people drive our business. As our most critical resource, employees are safeguarded through training, provision of appropriate work surroundings, and procedures that foster protection of health and safety. No duty, no matter what its perceived result, is more important than employee health and safety.

General Guidelines in an Emergency

Stay calm and think through your actions. Know important emergency numbers, such as:

- Fire/Police/Ambulance 911
- Human Resources
- Operator

Be aware of your surroundings

- Know where stairwell exits are located
- In the event of an emergency, use only stairs—do not take elevators.
- Do not hesitate to call or alert others if you believe that an emergency is occurring.

Fire Evacuation:

[redacted]

EMERGENCY CLOSINGS

At times, emergencies such as severe weather, fires, power failures, or earthquakes, can disrupt company operations. In extreme cases, these circumstances may require the closing of a work facility.

When operations are officially closed due to emergency conditions, the time off from scheduled work will be unpaid. However, with supervisory approval, employees may use available paid leave time, such as unused vacation benefits.

In cases where an emergency closing is not authorized, employees who fail to report for work will not be paid for the time off. Employees in essential operations may be asked to work on a day when operations are officially closed. In these circumstances, employees who work will receive regular pay.

MEDICAL EMERGENCIES

Medical Emergency:

- Upon discovering a medical emergency, call 911.

- Call the receptionist and page an emergency announcement, if possible.
- Stay with the ill or injured person, being careful not to come into contact with any body fluids unless properly trained and protected.
- Send one person to alert Human Resources so they can notify family members of the ill or injured person.
- Employees in the immediate vicinity of the emergency, but not involved in the emergency effort, should leave the area.

WEAPONS

Unless prohibited by state law, Hawaiian Ethos prohibits the possession of firearms or any other lethal weapon on Hawaiian Ethos property, in a vehicle being used on Company business, in any company-owned or leased parking facility or at a work-related function. This applies to all employees, visitors and customers on Company property, even those who are licensed to carry weapons. The only exception to this is an employee who is required to possess weapons in order to fulfill his or her job duties.

Some examples of prohibited weapons include but are not limited to:

- Firearms (pistols, revolvers, shotguns, rifles and bb guns)
- Knives (switchblades, gravity knives or any knife with a blade longer than three inches)
- Metal knuckles
- Bows and arrows
- Tasers

We prohibit weapons to ensure the safety and security of all employees and persons visiting Hawaiian Ethos. Any employee found in violation of this policy will be subject to disciplinary action, up to and including immediate termination. If you have questions or concerns regarding this policy, please contact Human Resources.

ROBBERY POLICY

[redacted]

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[redacted]

Actions After a Robbery Has Occurred

The institution's Manager of Branch Operations and/or management in charge at the time of the robbery is responsible for the following items:

1. Ensure that the branch is immediately closed and restrict access to the area involved until law enforcement personnel have completed the initial stage of their investigation. Only law enforcement and the institution's administration personnel are to be allowed into the branch until customer service has been restored.

2. Ensure that these Robbery procedures have been followed and a Robber Description Form is prepared. Provide instructions to all appropriate personnel and customers.

3. Isolate witnesses so that law enforcement staff may interview them. Employees and witnesses should not be allowed to compare information prior to being interviewed.

4. Immediate telephone notification must be given in the following order:
    - Local Police, County Sheriff or Highway Patrol
    - FBI Office (if local authorities have not responded)
    - Corporate Security

5. Descriptive information such as direction of travel, description of the car, etc., should be given to the local law enforcement agency so they may provide the information to persons responding to the alarm.

After law enforcement has processed the area for evidence, management must secure the victim's cash drawer and work area until two persons can conveniently audit them. Information related to the crime scene and bait money involved (dollar amount, denomination and serial numbers) should be given to the investigating law enforcement agency.

Still-photo security cameras should be opened in the presence of the FBI or law enforcement officers. If a video camera is used, the bank's Manager of Branch Operations should maintain custody of the videotape. The Manager of Branch Operations will surrender the film or cassette to the designated law enforcement officer collecting evidence.

FIRE PREVENTION

The elimination of fire hazards protects, among other things, the personal safety of all employees, College property, and valuable records. Extreme caution must be exercised at all times to avoid causing a fire. To assist in fire prevention, each employee should become familiar with the location and operation of the fire extinguishers that are provided in his/her work areas. Fire hazards should be reported and eliminated at once.

In the case of a fire, employees should immediately:

- Dial 911 or the local fire department;
- Contact a supervisor and evacuate all employees from the area;

- If it's a small fire, locate the nearest fire extinguisher and attempt to extinguish the fire;
- If it's a large fire, immediately leave the area and make no attempts to fight the fire; and
- Upon their arrival, direct the fire department crew to the fire; do not re-enter the building unless directed to do so by the fire department.

Questions regarding this policy should be directed to your supervisor.

SECURITY INSPECTIONS

Hawaiian Ethos wishes to maintain a work environment that is free of illegal drugs, alcohol, firearms, explosives, or other improper materials. To this end, Hawaiian Ethos prohibits the possession, transfer, sale, or use of such materials on its premises. Hawaiian Ethos requires the cooperation of all employees in administering this policy.

Desks, lockers, and other storage devices may be provided for the convenience of employees but remain the sole property of Hawaiian Ethos. Accordingly, they, as well as any articles found within them, can be inspected by any agent or representative of Hawaiian Ethos at any time, either with or without prior notice.

Hawaiian Ethos likewise wishes to discourage theft or unauthorized possession of the property of Hawaiian Ethos, employees, visitors, and customers. To facilitate enforcement of this policy, employees, or its representative may inspect not only desks and lockers but also persons entering and/or leaving the premises and any packages or other belongings. Any employee who wishes to avoid inspection of any articles or materials should not bring such items onto employees, premises.

HAZARD COMMUNICATION

In accordance with the Occupational Safety and Health (OSH) Act, the Hazard Communication Policy of Hawaiian Ethos provides for the right of both employees and employers to know of any potential dangers to health or physicality in the workplace.

Every chemical used at Hawaiian Ethos is evaluated with regard to its potential physical and health hazards. All known chemical hazards are revealed to employees through the manufacturer's Material Safety Data Sheet (MSDS), or if the chemical was created on Company premises, through an MSDS created by the individual mixing the chemicals. Chemical inventories as well as all MSDS forms are kept in every department with chemical substances present.

In addition, all containers of hazardous chemicals are labeled to reflect the identity of the chemical, the hazard warning, and the name and address of the chemical manufacturer. Chemicals are stored in spill-proof bottles or containers.

All employees are required to participate in training regarding the Company's Hazard Communication standard. Employees with responsibilities that require the routine use of handling of potentially hazardous chemicals are required to participate in additional training conducted by their supervisor.

Questions regarding this policy should be directed to your supervisor.

HAZARDOUS MATERIALS

All employees are responsible for reporting safety concerns and potential hazards. Each employee is expected to obey safety rules and exercise caution and common sense in all work activities. Employees must immediately report any unsafe conditions to their supervisor. Employees who violate safety standards; cause hazardous or dangerous situations; or fail to report or, where appropriate, remedy such situations may be subject to disciplinary action, up to and including termination of employment.

Employees cleaning up hazardous materials must do so in accordance with operation procedures in cleaning hazardous materials. When cleaning hazardous materials, use the hazardous materials kit.

In the case of an accident that results in injury, regardless of how insignificant the injury may appear, employees must notify their supervisor.

HAZARDOUS WASTE

There are a variety of safety provisions that regulate the management, storage, and disposal of hazardous waste. Hawaiian Ethos fully complies with all of these regulations to ensure the safety and health of our employees, clients, and customers.

For the purposes of this policy, "hazardous waste" is defined as any substance no longer in use with chemical and/or biological properties that may harm or endanger employees, material, or the environment if handled improperly.

Employees should ensure that as little hazardous waste is generated as possible. When using hazardous material, use sparingly and carefully in accordance with Hawaiian Ethos' chemical use and storage policies.

Employees are not to use plumbing systems to dispose of hazardous waste, regardless of whether or not they are "chemically resistant". Each department containing hazardous chemicals is equipped with appropriate disposal containers, labeled for each type of waste.

Different types of chemicals waste must be segregated in order to avoid unnecessary mixing. Regular trash containers are not to be used to dispose of such waste.

Questions regarding this policy should be directed to your supervisor.

CHEMICAL STORAGE

Chemical toxins pose a substantial risk to employees in the workplace and may cause injuries or fatalities if handled incorrectly. Hawaiian Ethos recognizes this and intends to defend the safety of all our workers by requiring employees to follow the guidelines set forth in this policy.

All chemicals must be stored in original labeled containers or bottles and must be placed only in authorized storage areas. Furthermore, all chemicals must be stored by category and apart from one another to prevent unplanned blending.

For further information on storing chemicals, employees should see the Material Data Safety Sheets (MSDS), which are found in authorized storage areas. In the event a leak of unknown origin is discovered in the storage area, the employee should alert their supervisor as soon as possible to determine severity and whether evacuation is necessary.

Employees of Hawaiian Ethos are expected to recognize and identify the risk of carelessness in chemical storage and use preventive measures to assure the health and safety of every staff member.

MATERIAL DATA SAFETY SHEET (MSDS)

Hawaiian Ethos considers employee health and safety to be of utmost importance. As such, in accordance with our Hazard Communication standard, we ensure that all departments containing hazardous chemicals are equipped with Material Safety Data Sheets (MSDS's). An MSDS is a detailed informational document prepared by the manufacturer or importer of a hazardous chemical describing the physical and chemical properties of the material and its potential hazards.

The MSDS includes the following information:

- The identity of the hazardous components of the chemical;
- The health and physical hazards of the chemical;
- Protective measures and equipment to be used if exposed to the chemical;
- Appropriate method(s) of disposal; and
- Manufacturer's contact information.

Questions regarding this policy should be directed to your supervisor.

DISABILITY ACCOMODATION

Hawaiian Ethos is committed to complying fully with the Americans with Disabilities Act (ADA) and ensuring equal opportunity in employment for qualified persons with disabilities. All employment practices and activities are conducted on a non-discriminatory basis.

Hiring procedures have been reviewed and provide persons with disabilities meaningful employment opportunities. Pre-employment inquiries are made only regarding an applicant's ability to perform the duties of the position.

Post-offer medical examinations are required only for those positions in which there is a bona fide job-related physical requirement. They are given to all persons entering the position only after conditional job offers. Medical records will be kept separate and confidential.

Reasonable accommodation is available to all disabled employees, where their disability affects the performance of job functions. All employment decisions are based on the merits of the situation in accordance with defined criteria, not the disability of the individual.

Qualified individuals with disabilities are entitled to equal pay and other forms of compensation (or changes in compensation) as well as in job assignments, classifications, organizational structures, position descriptions, lines of progression, and seniority lists. Leave of all types will be available to all employees on an equal basis.

Hawaiian Ethos is also committed to not discriminating against any qualified employees or applicants because they are related to or associated with a person with a disability. Hawaiian Ethos will follow any state or local law that provides individuals with disabilities greater protection than the ADA.

This policy is neither exhaustive nor exclusive. Hawaiian Ethos is committed to taking all other actions necessary to ensure equal employment opportunity for persons with disabilities in accordance with the ADA and all other applicable federal, state, and local laws.

PERSONAL PROPERTY

It is the policy of Hawaiian Ethos to ask employees to refrain from bringing unnecessary or inappropriate personal property to work.

Hawaiian Ethos recognizes that employees may need to bring certain personal items to work. However, personal property that is not related to the employee's job performance may disrupt work or pose a safety risk to other employees.

Employees are expected to exercise reasonable care to safeguard personal items brought to work. Hawaiian Ethos is not responsible for the loss, damage, or theft of personal belongings, and employees are advised not to carry unnecessary amounts of cash or other valuables with them when they come to work.

LOST AND FOUND

Any items found within the facility should be delivered to the Manager. The Manager will keep the item until its rightful owner claims it.

In the event an item is not claimed within 10 days, the Manager will make a posting of the missing item on bulletin boards. If the item is not claimed within 30 days, it will first be offered to the finder, and if refused will be discarded.

Hawaiian Ethos is not responsible for lost or stolen personal items.

RETURN OF COMPANY PROPERTY

Employees are responsible for items issued to them by Hawaiian Ethos or in their possession or control, such as the following:

- Cell phones
- Gate Remotes
- Credit Cards
- Equipment
- Identification badges
- Keys
- Protective Equipment
- Security Passes
- Tools
- Uniforms
- Vehicles
- Written materials

Employees must return all Hawaiian Ethos property immediately upon request or upon termination of employment. Where permitted by applicable laws, Hawaiian Ethos may withhold from the employee's check or final paycheck the cost of any items that are not returned when required. Hawaiian Ethos may also take all action deemed appropriate to recover or protect its property.

SMOKING

In keeping with Hawaiian Ethos intent to provide a safe and healthful work environment, smoking is prohibited throughout the workplace.

This policy applies equally to all employees, customers, and visitors.

COMPANY HOURS

Supervisors at Hawaiian Ethos will advise employees of their scheduled shift, including starting and ending times. Business needs may necessitate a variation in your starting and ending times as well as in the total hours you may be scheduled to work each day and each week.

MEAL AND REST PERIODS

Each workday, full-time nonexempt employees are provided with 2 rest periods of 10 minutes in length. To the extent possible, rest periods will be provided in the middle of work periods. Since this time is counted and paid as time worked, employees must not be absent from their work stations beyond the allotted rest period time.

All full-time Full time nonexempt employees are provided with one meal period of 30 minutes in length each workday. Supervisors will schedule meal periods to accommodate operating requirements. Employees will be relieved of all active responsibilities and restrictions during meal periods and will not be compensated for that time.

EMPLOYEE CONDUCT

STANDARD OF CONDUCT

The work rules and standards of conduct for Hawaiian Ethos are important, and the company regards them seriously. All Hawaiian Ethos employees are urged to become familiar with these rules and standards. In addition, employees are expected to follow the rules and standards faithfully in doing their jobs and conducting business on behalf of Hawaiian Ethos. Please note that any employee who deviates from these rules and standards will be subject to disciplinary action, up to and including termination of employment.

While not intended to list all the forms of behavior that are considered unacceptable in the workplace, the following are examples of rule infractions or misconduct that may result in disciplinary action.

- Theft or inappropriate removal or possession of property
- Falsification of timekeeping records
- Working under the influence of alcohol or illegal drugs
- Possession, manufacture, distribution, sale, transfer, dispensation or use of alcohol or illegal drugs
- Fighting or threatening violence in the workplace
- Immoral actions or intimidating others
- Boisterous or disruptive activity in the workplace
- Negligence or improper conduct leading to damage of Hawaiian Ethos or customer property
- Insubordination or other disrespectful conduct
- Violation of safety or health rules
- Smoking in the workplace
- Sexual or other unlawful or unwelcome harassment or touching
- Excessive absenteeism or any absence without notice
- Unauthorized use of telephones or other Hawaiian Ethos equipment
- Using Hawaiian Ethos equipment for purposes other than business (e.g., playing games on computers or personal Internet usage)
- Unauthorized disclosure of confidential information
- Violation of personnel policies
- Unsatisfactory performance or conduct

These rules apply to any and all interactions with customers, fellow employees or anyone else associated with the workplace.

DISCIPLINARY ACTION

Disciplinary action at Hawaiian Ethos is intended to fairly and impartially correct behavior and performance problems early on and to prevent reoccurrence.

Disciplinary action may involve any of the following: verbal warning, written warning, suspension with or without pay, and termination of employment, depending on the severity of the problem and the frequency of occurrence. Hawaiian Ethos reserves the right to administer disciplinary action at its discretion and based upon the circumstances.

Hawaiian Ethos recognizes that certain types of employee behavior are serious enough to justify termination of employment, without observing other disciplinary action first.

These violations include but are not limited to:

- Workplace violence;
- Harassment;
- Theft of any kind;
- Vandalism or destruction of company property;
- Presence on company property during non-business hours;
- Use of company equipment and/or company vehicles without prior authorization;
- Divulging Hawaiian Ethos business practices or any other confidential information; and
- Violating any state or local law regarding the sale, production, or distribution of medical marijuana.

WORKPLACE ETTIQUETTE

Hawaiian Ethos strives to maintain a positive work environment where employees treat each other with respect and courtesy. Sometimes issues arise when employees are unaware that their behavior in the workplace may be disruptive or annoying to others. Many of these day-to-day issues can be addressed by politely talking with a co-worker to bring the perceived problem to his or her attention. In most cases, common sense will dictate an appropriate resolution. Hawaiian Ethos encourages all employees to keep an open mind and graciously accept constructive feedback or a request to change behavior that may be affecting another employee's ability to concentrate and be productive.

The following workplace etiquette guidelines are not necessarily intended to be hard and fast work rules with disciplinary consequences. They are simply suggestions for appropriate workplace behavior to help everyone be more conscientious and considerate of co-workers and the work environment. Please contact the Office Manager if you have comments, concerns, or suggestions regarding these workplace etiquette guidelines.

- Avoid public accusations or criticisms of other employees. Address such issues privately with those involved or your supervisor.
- Try to minimize unscheduled interruptions of other employees while they are working.
- Communicate by e-mail or phone whenever possible, instead of walking unexpectedly into someone's office or workspace.
- Keep socializing to a minimum, and try to conduct conversations in areas where the noise will not be distracting to others.
- Refrain from using inappropriate language (swearing) that others may overhear.
- Avoid discussions of your personal life/issues in public conversations that can be easily overheard.
- Clean up after yourself and do not leave behind waste or discarded papers.

EMPLOYEE RELATIONSHIPS IN THE WORKPLACE

The employment of relatives or individuals involved in a dating relationship in the same area of an organization may cause serious conflicts and problems with favoritism and employee morale. In addition to claims of partiality in treatment at work, personal conflicts from outside the work environment can be carried over into day-to-day working relationships.

For purposes of this policy, a relative is any person who is related by blood or marriage, or whose relationship with the employee is similar to that of persons who are related by blood or marriage. A dating relationship is defined as a relationship that may be reasonably expected to lead to the formation of a consensual "romantic" or sexual relationship. This policy applies to all employees without regard to the gender or sexual orientation of the individuals involved.

Relatives of current employees may not occupy a position that will be working directly for or supervising their relative. Individuals involved in a dating relationship with a current employee may also not occupy a position that will be working directly for or supervising the employee with whom they are involved in a dating relationship. Hawaiian Ethos also reserves the right to take prompt action if an actual or potential conflict of interest arises involving relatives or individuals involved in a dating relationship who occupy positions at any level (higher or lower) in the same line of authority that may affect the review of employment decisions.

If a relative relationship or dating relationship is established after employment between employees who are in a reporting situation described above, it is the responsibility and obligation of the supervisor involved in the relationship to disclose the existence of the relationship to management. The individuals concerned will be given the opportunity to decide who is to be transferred to another available position. If that decision is not made within 30 calendar days, management will decide who is to be transferred or, if necessary, terminated from employment.

In other cases where a conflict or the potential for conflict arises because of the relationship between employees, even if there is no line of authority or reporting involved, the employees may be separated by reassignment or terminated from employment. Employees in a close personal relationship should refrain from public workplace displays of affection or excessive personal conversation.

WORKPLACE VIOLENCE

- Any employee who feels that he or she has been threatened should immediately report the incident to their supervisor and Human Resources.
- If you observe anyone exhibiting threatening behavior or making threatening statements, warn others in the area and immediately notify Human Resources—stay away from the person exhibiting the threatening behavior.
- Depending upon the level of concern, 911 may be called immediately.

- Never attempt to confront any person exhibiting threatening behavior.

If you have reason to believe that events in your personal life could result in acts of violence occurring at work, you are strongly urged to confidentially discuss the issue with Human Resources so that a prevention plan can be developed.

VISITORS IN THE WORKPLACE

Hawaiian Ethos cares about the safety and security of its employees. In an effort to maintain the maximum safety and security possible at a minimum inconvenience to you, we have guidelines in place regarding facility access and visitors.

All visitors are to be escorted by authorized personnel at all times. Please do not allow visitors to roam the premises unattended.

COMPUTER, EMAIL AND INTERNET USAGE

The following guidelines have been established for using the Internet, company-provided cell phones and e-mail in an appropriate, ethical and professional manner:

- Internet, company-provided equipment (e.g., cell phone, laptops, computers) and services may not be used for transmitting, retrieving or storing any communications of a defamatory, discriminatory, harassing or pornographic nature.
- The following actions are forbidden: using disparaging, abusive, profane or offensive language; creating, viewing or displaying materials that might adversely or negatively reflect upon Hawaiian Ethos or be contrary to Hawaiian Ethos' best interests; and engaging in any illegal activities, including piracy, cracking, extortion, blackmail, copyright infringement, and unauthorized access of any computers and company-provided equipment such as cell phones and laptops.
- Employees may not copy, retrieve, modify or forward copyrighted materials, except with permission or as a single copy to reference only.
- Employees must not use the system in a way that disrupts its use by others. Employees must not send or receive large files that could be saved/transferred via thumb drives. Employees are prohibited from sending or receiving files that are not related to work.
- Employees should not open suspicious e-mails, pop-ups or downloads. Contact IT with any questions or concerns to reduce the release of viruses or to contain viruses immediately.
- Internal and external e-mails are considered business records and may be subject to discovery in the event of litigation. Be aware of this possibility when sending e-mail within and outside the company.

All company-supplied technology and company-related work records belong to Hawaiian Ethos and not to the employee. Hawaiian Ethos routinely monitors use of company-supplied technology. Inappropriate or illegal use or communications may be subject to disciplinary action up to and including termination of employment.

TELEPHONE POLICY

Hawaiian Ethos telephones are intended for the sole use of conducting company business.

Business phone calls - Much of our business is conducted over the phone, making our telephone techniques extremely important. A friendly but businesslike telephone manner should always be projected. When you are away from your work area, make a habit of forwarding your calls to the appropriate extension.

Personal phone calls - We recognize that periodically, personal phone calls must be made or received during the business hours. Such calls should be held at a minimum so that they do not interfere with the workflow.

Personal cellphone calls - In order to provide an optimum work environment, employees are expected to have cellphones turned off during work hours. Ringing cellphones are a distraction to co-workers and can interfere with productivity. Cellphones should only be used during breaks, lunches and outside of the office. Flexibility will be provided in circumstances demanding immediate or emergency attention.

Voicemail - Company telephones are also equipped with voicemail. Voicemail was installed to help maintain our high quality of service for clients and to increase efficiency throughout the office. Voicemail will be an option to the caller; the call will not be put directly through to voicemail. It is recommended that employee greetings be changed daily. They should be brief and communicate your availability to clients.

Please contact Human Resources with questions about our Phone Call Policy.

PHOTOGRAPHY AND VIDEOTAPING IN THE WORKPLACE

Photography and videotaping has the potential to disclose confidential company information and jeopardizes employee privacy rights. As such, Hawaiian Ethos strictly prohibits photography and videotaping in the workplace, unless expressly authorized by Company management.

Employees are prohibited from using any device that has the capacity to capture photographic images or video images; this includes company issued and personal cell phones.

Any employee found to have violated this policy will be subject to disciplinary action, up to and including immediate termination of employment.

PERSONAL APPEARANCE

Dress, grooming, and personal cleanliness standards contribute to the morale of all employees and affect the business image Hawaiian Ethos presents to customers and visitors.

During business hours or when representing Hawaiian Ethos, you are expected to present a clean, neat, and tasteful appearance. You should dress and groom yourself according to the requirements of your position and accepted social standards. This is particularly true if your job involves dealing with customers or visitors in person.

Your supervisor or department head is responsible for establishing a reasonable dress code appropriate to the job you perform. If your supervisor feels your personal appearance is inappropriate, you may be asked to leave the workplace until you are properly dressed or groomed. Under such circumstance, you will not be compensated for the time away from work. Consult your supervisor if you have questions as to what constitutes appropriate appearance. Where necessary, reasonable accommodation may be made to a person with a disability.

Without unduly restricting individual tastes, the following personal appearance guidelines should be followed:

- Personal Protection Equipment (ex. Hearing, Eye, Fall, Back, Dust) must be used when required
- Shoes must provide safe, secure footing, and offer protection against hazards.
- Canvas or athletic type shoes are not appropriate professional attire.
- Tank tops, tube or halter tops, or shorts may not be worn under any circumstances.
- Offensive body odor and poor personal hygiene is not professionally acceptable.
- Jewelry should not be functionally restrictive, dangerous to job performance, or excessive.

HYGIENE

Employee Hygiene
Hawaiian Ethos encourages the practice of appropriate employee hygiene within the workplace. This includes but is not limited to:

- Washing hands after using the restroom;
- Limiting or abstaining from the excessive use of perfumes and colognes;
- Appropriate use of deodorant;
- Appropriate bodily cleanliness;
- Kept hair (pulled back); and
- Containment of communicable diseases.

Workplace Hygiene
Hawaiian Ethos encourages the practice of clean hygiene within the workplace. This includes but is not limited to:

- Washing hands after using the restroom;
- The proper disposal of garbage;
- Proper sanitation in eating areas; and
- Cleanliness of workspace.

Managers and supervisors are responsible for interpreting and enforcing the hygiene policy at their discretion. This includes advising employees with inappropriate hygiene standards. Reasonable accommodation can be made in extreme circumstances.

Business necessity does call for professional standards in order to protect a clean and non distracting work place. Questions or concerns should be handled by an employee's immediate supervisor or the Director of Human Resources. Any employee may be sent home in order to correct a problem. Hawaiian EthoS seeks to remain in compliance with all relevant state and federal laws.

HOUSEKEEPING

Hawaiian Ethos expects all employees to keep work areas, break rooms, and Hawaiian Ethos property clean and well maintained at all times. The use of the break room and Hawaiian Ethos facilities is a privilege and proper care is required.

The break room and coffee station are available for employee use. Employees are permitted to use the refrigerator, microwave, toaster, and coffee maker. Employees are expected to clean all areas after using them.

Employee workspaces are also expected to be kept neat and orderly. Prior to leaving for the day, all employees are required to tidy up their work area and return all items to their proper location.

Any employee found to be contributing to unsanitary conditions will be subject to discipline, up to and including immediate termination of employment.

Questions regarding this policy should be directed to your supervisor.

MEDIA RELATIONS

Hawaiian Ethos is committed to providing the media with accurate information. To avoid discrepancies, specific guidelines should be followed when a media inquiry is received.

All media inquiries regarding Hawaiian Ethos and its operation must be immediately referred to Dispensary Manager, who is authorized to make or approve public statements regarding company business. Unless specifically designated by this person, you are not authorized to make those statements. If you wish to write or publish an article, paper or other publication on behalf of Hawaiian Ethos, you must first obtain approval.

Hawaiian Ethos will generally provide a response to media inquiries within 24 hours. Should the response require a detailed technical explanation, a spokesperson will be designated to address the issue. The spokesperson will be chosen carefully, based on their area(s) of expertise.

Media inquiries include, but are not limited to, official statements, press releases and advertisements.

Please contact Dispensary Manager with any questions or concerns you have regarding the Media Relations Policy.

COMPANY CREDIT CARD

Hawaiian Ethos offers company credit cards for employees who travel frequently for their duties, purchase large volumes of goods for use by the company or incur frequent business expenses that can be paid by credit card.

As a general rule, corporate credit cards cannot be used to obtain cash advances, bank checks or electronic cash transfers for anything other than the expenses incurred by the employee whose name appears on the credit card. The card is not to be used for personal expenses of the employee, either.

- Misuse of a Company credit card will result in cancellation of the card. If the card is used for personal expenses, Hawaiian Ethos has the right to recover these expenses from the cardholder. All employee cardholders will be required to sign an agreement authorizing Hawaiian Ethos to recover any amounts that are incurred for personal reasons out of their salaries.
- Credit card expenditures must be submitted with original receipts to Human Resources at the end of each calendar month. Cardholders who do not submit their expenditures within this time frame will be asked to submit them immediately.
- If a credit card holder does not follow this Policy, his or her card will be cancelled.
- Lost or stolen Hawaiian Ethos credit cards must be reported to Human Resources immediately.

COMMUNITY AFFAIRS

Hawaiian Ethos encourages employee involvement in community and civic activities. However, employees are expected to keep such activities in practical balance with their job requirements,

which take first priority. Employees must also be sure that their involvement in community affairs does not present an apparent or actual conflict of interest with Hawaiian Ethos.

POLITICAL ACTIVITY

Employees of Hawaiian Ethos may engage in political activities outside of work hours, but should not allow their political affiliation to affect the performance of their work responsibilities and duties or relationships with coworkers and other employees.

SOCIAL NETWORKING AND SOCIAL MEDIA

Hawaiian Ethos is committed to maintaining a good relationship with its employees and the marketplace. The way the public views Hawaiian Ethos is vital to maintaining business, gaining new business, retaining first-class employees, recruiting new employees and marketing our products and services.

While Hawaiian Ethos has no intention of controlling employee actions outside of work, employees should practice caution and use discretion when posting content on all social media platforms. Employees have the right to use social media for personal expression on their own time, and Hawaiian Ethos will not violate employee privacy by attempting to access content that has not been made available publicly. This policy serves as a notice on the practice of social networking for all employees to read and understand. As more concerns develop and legislation is released, this policy is subject to change.

The purpose of this policy is to:

- To guarantee a constructive relationship between the company and its employees
- To manage risk and preserve Hawaiian Ethos' positive reputation
- To discourage the use of company time for personal social media activities
- To promote awareness among employees of the number of individuals who can access information presented on social networking sites

Definitions

Social networking and *social media* refer to any activity that involves interaction in online communities. This interaction includes, but is not limited to, browsing profiles and photos, reading messages sent through social networking forums and participating in instant messaging services.

A *social networking site* is any website that links individuals electronically and provides a forum where users can connect and share information. These websites can be tailored to specific interests or to certain types of users.

A *social networking profile* is a user's personalized page within a specific social networking site, usually containing personal information such as name, birthday, photo and interests.

Micro-blogging is the practice of publishing your recent whereabouts, thoughts or activities on a social networking site for other users to see. While not all social networking sites use micro-blogging, this is a primary focus of sites such as Twitter and Facebook.

Business purposes is considered using a social networking site for the company's gain, usually as a task or assignment given by a manager or supervisor. This can be done either through a specific company account on a given social networking site or through a personal account set up for the purposes of recruiting or marketing for Hawaiian Ethos.

The term *Working Hours* includes any time employees are being paid to conduct company business. Standard working hours are from 8:00am to 5:00pm, Monday through Friday. This timeframe may vary based on job type and responsibilities.

Procedures

Prohibited Use

It is important that employees use their time at work for business purposes. Employees are not blocked from access to social networking sites on Hawaiian Ethos computers because, under some circumstances, social networking is a powerful business tool that can be channeled to gain positive publicity for the company and to connect with clients. However, access to such websites should follow company policy. The following actions are prohibited during working hours:

- Using social networking sites to conduct personal or non-company business with a company computer or device.
- Browsing social networking sites for non-company business on company time with a company computer or device.
- Reading e-mail alerts regarding personal social networking account activity or using Hawaiian Ethos e-mail to correspond with personal social networking contacts.
- Updating information, uploading photos or otherwise engaging with one's personal social networking profile for non-business purposes with a company computer or device.
- Micro-blogging for a non-business purpose on a social networking site throughout the day, whether it is on a company-provided computer or a personal smart phone device.

Prohibited Conduct

Having your own individual social networking account and using it on your own time is certainly permissible. However, keep in mind that some actions on your personal site are visible for the entire social networking community and may no longer be considered private matters. Hawaiian Ethos has put it in place a set of conduct guidelines to protect its brand and prevent the unwanted disclosure of confidential information. Please follow these guidelines:

- Do not use micro-blogging features to disclose trade secrets, publish internal reports, provide tips based on inside information or participate in other activities that may be considered insider trading.
- We urge you to consider resolving workplace grievances internally. If you choose to address a grievance using social media, we recommend you refrain from posting comments and materials that could be viewed as malicious, obscene, threatening, intimidating or that could create a hostile environment on the basis of race, sex, disability, religion or any other status protected by law.
- We also recommend you refrain from posting any opprobrious, reckless or maliciously untrue comments. These communications may not be protected by law.
- Do not impersonate Hawaiian Ethos or its employees, make statements on behalf of Hawaiian Ethos without authorization, or make statements that can be construed as establishing Hawaiian Ethos' official position or policy on any particular issue.

As stated above, the purpose of this policy is to protect Hawaiian Ethos' brand and prevent the disclosure of confidential information. It is not Hawaiian Ethos intent to interfere with its employees' legal rights. Whenever state or federal law govern an area of social media participation, Hawaiian Ethos policies should be interpreted as to comply with them.

SUBSTANCE ABUSE

It is Hawaiian Ethos' desire to provide a drug-free, healthful, and safe workplace. To promote this goal, employees are required to report to work in appropriate mental and physical condition to perform their jobs in a satisfactory manner.

While on Hawaiian Ethos premises and while conducting business-related activities off Hawaiian Ethos premises, no employee may use, possess, distribute, sell, or be under the influence of alcohol or illegal drugs. The legal use of prescribed drugs is permitted on the job only if it does not impair an employee's ability to perform the essential functions of the job effectively and in a safe manner that does not endanger other individuals in the workplace.

Violations of this policy may lead to disciplinary action, up to and including immediate termination of employment, and/or required participation in a substance abuse rehabilitation or treatment program. Such violations may also have legal consequences.

To inform employees about important provisions of this policy, Hawaiian Ethos has established a drug-free awareness program. The program provides information on the dangers and effects of substance abuse in the workplace, resources available to employees, and consequences for violations of this policy.

Employees with questions or concerns about substance dependency or abuse are encouraged to discuss these matters with their supervisor to receive assistance or referrals to appropriate resources in the community.

Employees with drug or alcohol problems that have not resulted in, and are not the immediate subject of, disciplinary action may request approval to take unpaid time off to participate in a rehabilitation or treatment program. Leave may be granted if the employee agrees to abstain from use of the problem substance; abides by all Hawaiian Ethos policies, rules, and prohibitions relating to conduct in the workplace; and if granting the leave will not cause Hawaiian Ethos any undue hardship.

Under the Drug-Free Workplace Act, an employee who performs work for a government contract or grant must notify Hawaiian Ethos of a criminal conviction for drug-related activity occurring in the workplace. The report must be made within five days of the conviction.

Employees with questions on this policy or issues related to drug or alcohol use in the workplace should raise their concerns with their supervisor without fear of reprisal.

SEXUAL AND UNLAWFUL HARASSMENT

Hawaiian Ethos is committed to providing a work environment that is free from all forms of discrimination and conduct that can be considered harassing, coercive, or disruptive, including sexual harassment. Actions, words, jokes, or comments based on an individual's sex, race, color, national origin, age, religion, disability, sexual orientation, or any other legally protected characteristic will not be tolerated. Hawaiian Ethos provides ongoing sexual harassment training to ensure you the opportunity to work in an environment free of sexual and other unlawful harassment.

Sexual harassment is defined as unwanted sexual advances, or visual, verbal, or physical conduct of a sexual nature. This definition includes many forms of offensive behavior and includes gender-based harassment of a person of the same sex as the harasser. The following is a partial list of sexual harassment examples:

- Unwanted sexual advances.
- Offering employment benefits in exchange for sexual favors.
- Making or threatening reprisals after a negative response to sexual advances.
- Visual conduct that includes leering, making sexual gestures, or displaying of sexually suggestive objects or pictures, cartoons or posters.
- Verbal conduct that includes making or using derogatory comments, epithets, slurs, or jokes
- Verbal sexual advances or propositions.
- Verbal abuse of a sexual nature, graphic verbal commentaries about an individual's body, sexually degrading words used to describe an individual, or suggestive or obscene letters, notes, or invitations.
- Physical conduct that includes touching, assaulting, or impeding or blocking movements.

Unwelcome sexual advances (either verbal or physical), requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when: (1) submission to such conduct is made either explicitly or implicitly a term or condition of employment; (2) submission or rejection of the conduct is used as a basis for making employment decisions; or, (3) the conduct has the purpose or effect of interfering with work performance or creating an intimidating, hostile, or offensive work environment.

If you experience or witness sexual or other unlawful harassment in the workplace, report it immediately to your supervisor. If the supervisor is unavailable or you believe it would be inappropriate to contact that person, you should immediately contact the Risk Manager or any other member of management. You can raise concerns and make reports without fear of reprisal or retaliation.

All allegations of sexual harassment will be quickly and discreetly investigated. To the extent possible, your confidentiality and that of any witnesses and the alleged harasser will be protected against unnecessary disclosure. When the investigation is completed, you will be informed of the outcome of the investigation.

Any supervisor or manager who becomes aware of possible sexual or other unlawful harassment must immediately advise the supervisor or any member of management so it can be investigated in a timely and confidential manner. Anyone engaging in sexual or other unlawful harassment will be subject to disciplinary action, up to and including termination of employment.

OFF DUTY CONDUCT

While Hawaiian Ethos does not seek to interfere with the off-duty and personal conduct of its employees, certain type of off-duty conduct may interfere with the Hawaiian Ethos legitimate business interests and organizational goals. For this reason, employees should be aware of the following policies:

- Employees are expected to conduct their personal affairs in a manner that does not adversely affect the Hawaiian Ethos' or their integrity, reputation, or credibility. Illegal or immoral off duty conduct that adversely affects the Hawaiian Ethos' legitimate business interests or the employee's ability to perform his or her job will not be tolerated.

- While employed by the Hawaiian Ethos, full time employees are expected to devote their energies to their jobs with the Hawaiian Ethos. For this reason, second jobs are strongly discouraged (unless it clearly does not interfere with the work at the Hawaiian Ethos). The following types of outside employment are strictly prohibited:

1. Employment that conflicts with an employee's work schedule, duties, and responsibilities;

2. Employment that creates a conflict of interest or is incompatible with the employee's employment with Hawaiian Ethos.

3. Employment that impairs or has a detrimental effect on the employee's work performance with Hawaiian Ethos.

4. Employment that requires the employee to conduct work or related activities on the Hawaiian Ethos' property during Hawaiian Ethos' working hours, using the Hawaiian Ethos' property during Hawaiian Ethos' working hours, or using the Hawaiian Ethos' facilities and/or equipment.

5. Employment that directly or indirectly competes with the business or the interests of Hawaiian Ethos. Employees who wish to engage in outside employment that may create a real or apparent conflict or interest must submit a written request to the Unit Director or Human Resources explaining the

details of the outside employment. If the outside employment is authorized, Hawaiian Ethos assumes no responsibility for the outside employment. Hawaiian Ethos shall not provide workers' compensation coverage or any other benefit for injuries occurring from or arising out of outside employment.

PERSONAL PROPERTY WAIVER

Hawaiian Ethos assumes no liability whatsoever for the damage, loss or theft caused by third parties to the personal property of staff members.

All storage facilities, offices and workspaces, including desks and lockers, are the property of Hawaiian Ethos, and Hawaiian Ethos reserves the right to have access to these areas and to such property at any time, without advance notice to any employee. Therefore, employees should not expect that such property will be treated as private and personal to the employee. Likewise, electronic mail and voice mail are also company property and are to be used only for business purposes. Internet accounts are also to be used only for company business. Hawaiian Ethos reserves the right to inspect, monitor and have access to company computers, electronic mail, voice mail messages and Internet communications.

To promote the safety of employees and company visitors, as well as the security of its facilities, Hawaiian Ethos reserves the right to conduct video surveillance of any portion of its premises at any time. Video cameras will be positioned in appropriate places within and around company buildings. The only exceptions to this policy include private areas of restrooms, showers and dressing rooms.

Employee Acknowledgement:

I acknowledge that I have received a copy of Hawaiian Ethos' policy on personal property and expectations of privacy. I have also been given the opportunity to read and ask questions about the policy. I understand that by signing this acknowledgement, I agree to accept the policy as a condition of my employment or continuing employment with Hawaiian Ethos.

Print Name:

Date:

Signature:

REPORT OF JURY DUTY PAY

Employee Name: _____ Date: _____

Employee Location: _____ Employee ID#: _____

This form should be submitted to Human Resources.

I was out of the office on jury duty from _____ to _____, or (if you did not serve on consecutive days) on these dates: _____.

This is a copy of my jury duty pay statement. I understand that, although Hawaiian Ethos' benefits program includes pay continuation during jury duty, the additional money I earn while performing jury duty must be paid to Hawaiian Ethos. I understand, therefore, that my jury duty pay—pay only, not the transportation allowance—will be:

- ❑ Subtracted from a future paycheck
- ❑ Endorsed and paid directly to Hawaiian Ethos.

Signed: _____

RECEIPT OF HARRASSMENT POLICIES

As described in the Harassment Policy and the Sexual Harassment Policy, harassment is prohibited at Hawaiian Ethos.

By signing below, you acknowledge that you have received a copy of Hawaiian Ethos' Harassment Policy and Sexual Harassment Policy, and understand that it is your responsibility to read and comply with both policies and any revisions made to them.

_____ _____

Signature Date

_____

Print your full name

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VACATION REQUEST FORM

Employees of Hawaiian Ethos must submit their vacation requests for approval at least 2 weeks in advance. Vacations may be taken in full days

Employee Name: _____

Supervisor Name: _____

Department: _____

Date: _____ Number of Hours: _____

Reason for Vacation:

Vacation Request is: ❑ Approved ❑ Denied

Supervisor Signature: _____ Date: _____

HawaiianEthos

Cultivation Operations - La'au Pono

LA'AU PONO CULTIVATION OPERATIONS AND PROCEDURES

JOB DESCRIPTIONS

Cultivation Manager(s): The Cultivation Manager shall be responsible for managing all cultivation operations and employees at La'au Pono Cultivation Facility. The Cultivation Manager is ultimately responsible for the overall well-being of the facility including but not limited to, over all facility wellbeing, building maintenance, cleanliness, safety and security of the cultivation site. Most importantly, the Cultivation Manager is ultimately responsible for a strict adherence to laws and regulations concerning medical marijuana.

Security Manager(s): Security managers oversee the technology, policies, procedures, and staff that help prevent criminal activity, and keep building and La'au Pono Staff Safe. Security Manager will partner with Cultivation Manager to ensure all policies and procedures will be upheld.

Security Personnel(s) Responsible for safe-guarding all activities at the cultivation site as well as handling emergency security situations. Security Guards report directly to the General Manager.

Cultivator(s): Cultivators are responsible for all stages of growth in the cultivation of medicinal marijuana. Cultivators will report directly to the Cultivation Manager

Trimmer(s): Trimmers are responsible for break-down of plants and trim flowers, and weighing trimmed flowers. Trimmers report directly to the Cultivation Manager.

Laboratory Technician(s): Lab technician will be responsible for laboratory activities, operations, hire future staff, and ensure conformance to established procedures adhering to all legal guidelines. Laboratory technicians will choose appropriate testing equipment, and testing of cannabis products for potency and medicinal effects, pesticides, molds, biologicals, etc.

EMPLOYEE DATA PROTECTION

In connection with your employment, La'au Pono may ask you to provide certain information, including, but not limited to, your name, mailing address, telephone numbers, citizenship, country of residence, country of origin, gender, birth date, marital status, name of dependents, birth date of dependents, occupation of dependents and national identification number. Additionally we may maintain information relating to your employment with La'au Pono including, but not limited to, your employee identification number, business unit/division of employment, department, physical work location, job code, compensation rate, supervisor, work shift, hire and termination date, appraisal dates and ratings, training, skills, educational background, language proficiency, certifications and licenses.

The information collected by La'au Pono will be used for various administrative and record keeping purposes by La'au Pono.

2

Minimum and Maximum Personnel by Shift: There will be a minimum of one Manager or Security on duty at La'au Pono Cultivation Facility at all times. This means there will be an employee on site 24 hrs a day, 365 days a year, in order to fulfill the security standards set forth by La'au Pono and to notify law officials of any breach in security etc. Manager or Security guard on duty will also be there to admit employees through the entrance with video intercom at the beginning their shift. The maximum number of employees at any given time will be 16, which includes all levels of employment as well as laboratory staff.

1. Facility Operating Hours

Hours of Operation

Monday - Saturday 8am-8pm

The following state and federal holidays will be recognized by dispensary and result in closure of the business.

- New Year's Day
- Martin Luther King Jr. Day
- Presidents Day
- Prince Jonah Kuhio Kalanianaole Day
- Memorial Day
- King Kamehameha I Day
- Independence Day
- Statehood Day
- Labor Day
- Thanksgiving Day
- Day After Thanksgiving
- Christmas Day

TRAINING AND PROFESSIONAL DEVELOPMENT

All new hires at La'au Pono will be issued a photo identification card on their first training day, and must wear it throughout the duration of their shift. This identification card also acts as a New employees will go through an in-depth training on all particulars necessary to successfully run the dispensary to bring the best customer service, best medicinal products, all of which will enforce the utmost respect to rules and regulations.

The entire La'au Pono staff will go through a training that adheres to all current laws and regulations. Training will be administered by the Cultivation Manager, as well as out-sourced professionals from their areas of expertise. La'au Pono maintains a strict, zero tolerance rule for any and all violations to state laws and regulations. Each employee will be tested on laws and regulations surrounding all medical marijuana state laws and other relevant information to their job title.

Laws and Regulations/Compliance Training: Adhering to all state, local, and company specific regulations is of utmost importance to create an end product with the highest efficacy for patients. All cultivation facility team members will be required to have a general knowledge of all applicable laws and regulations dealing with the regulated cultivation of medical marijuana.

Policies Regarding Regulations: It is the cultivation facility management's duty to ensure regulatory requirements are followed at all times. The cultivation facility management shall maintain a

zero tolerance policy for any infractions that would go against state, local, and company regulatory measures.

Current Regulations: The entire staff must be trained in all current regulations. A test shall be administered to all team members by the team supervisor and cover any regulations that pertain directly to team members duties.

New Regulations: All new regulations shall be implemented on the exact date they become effective. Training and testing of new regulatory measures shall take place before the effective date in order to ensure that all team members attain a complete understanding of such measures and can fully and accurately implement new regulations on the effective date.

Training Record: Facility management is responsible for maintaining a training record for each area team member. Such record will include, at a minimum, documentation of all required training, including:

POS System BioTrackTHC: Hawaiian Ethos has partnered with BioTrackTHC, a leading industry seed-to-sale Medical Marijuana Point of Sale software. BioTrackTHC is designed to not only offer a turn-key POS software system to meet state regulations, but to actually enhance and streamline every aspect of Hawaiian Ethos. Not only willPlease refer to Section Two addenda for a comprehensive BioTrackTHC user guide. [redacted]

SAFETY AND SECURITY:

[redacted]

Hawaiian Ethos and La'au Pono are collaborating to build a brand new, state of the art, cultivation facility to exact specifications. This gives us the advantage of engineering the building type and layout to maximize security. [redacted]

Surveillance: [redacted]

[redacted]

7

[redacted]

8

[redacted]

SECURITY INSPECTIONS

Hawaiian Ethos wishes to maintain a work environment that is free of illegal drugs, alcohol, firearms, explosives, or other improper materials. To this end, Hawaiian Ethos prohibits the possession, transfer, sale, or use of such materials on its premises. Hawaiian Ethos requires the cooperation of all employees in administering this policy.

Desks, lockers, and other storage devices may be provided for the convenience of employees but remain the sole property of Hawaiian Ethos. Accordingly, they, as well as any articles found within them, can be inspected by any agent or representative of Hawaiian Ethos at any time, either with or without prior notice.

Hawaiian Ethos likewise wishes to discourage theft or unauthorized possession of the property of Hawaiian Ethos, employees, visitors and patients. To facilitate enforcement of this policy, employees, or its representative may inspect not only desks and lockers but also persons entering and/or leaving the premises and any packages or other belongings. Any employee who wishes to

avoid inspection of any articles or materials should not bring such items onto employees, premises.

Hawaiian Ethos has comprehensive security protocols in place to limit risk to its operations and ensure the safety of its employees, customers, and facilities.

- In the event the dispensary facility experiences a security system breach or failure, facility management will secure the facility and immediately suspended all operations and the following measures will be followed:

[redacted]

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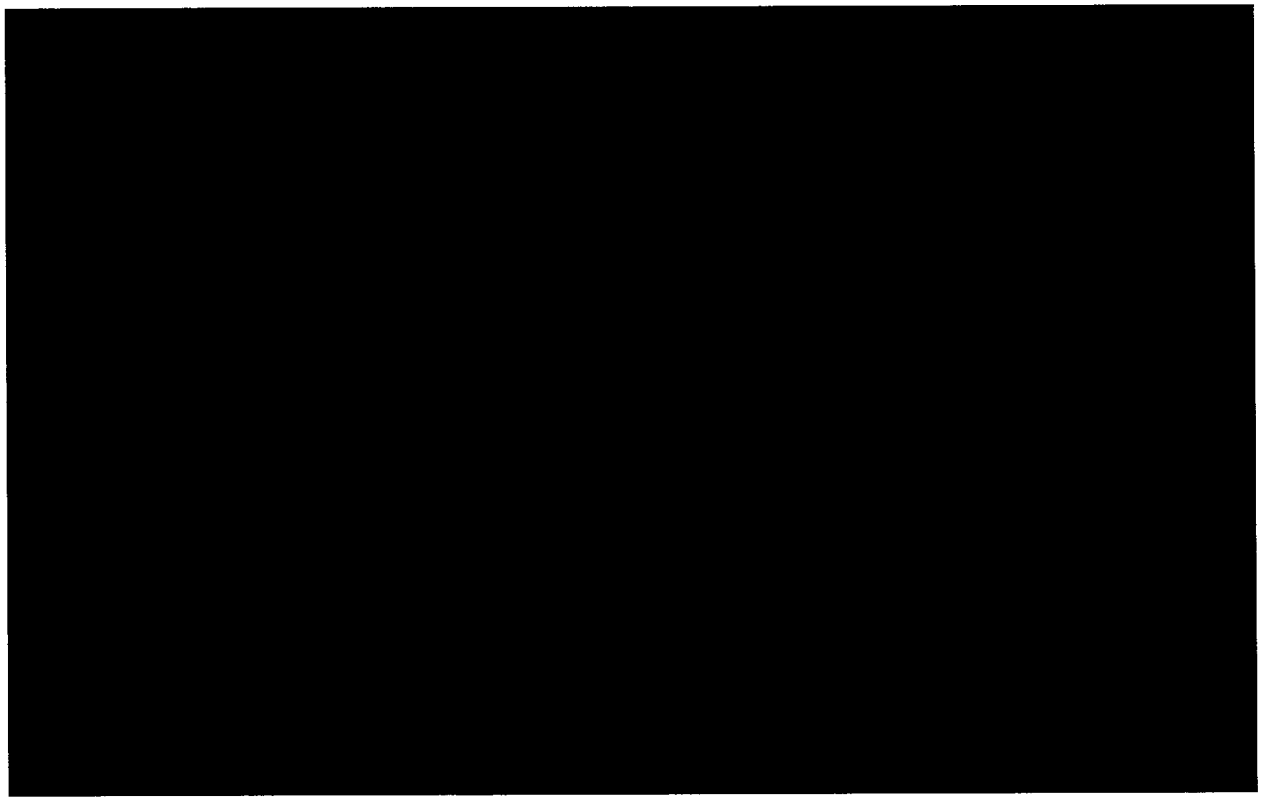

- Resumption of Operations
  - Once the failure or breach has been addressed and the IMT is satisfied that required security systems are fully operational, the facility can resume operations
- After Action Reports (AAR)
  - Within 72 hours of the resumption of operations, an after action report will be completed identifying the causes of the failure or breaches and corrective measures put in place to mitigate future failures or breaches
- Notifications to the Hawaii Department of Health:

- Hawaiian Ethos will notify the Hawaii Department of Health that there was a breach or failure and protocols followed to ensure the security and safety of the facilities and mitigation strategies

Training Manuals: Training manuals will be left on site and will not be available to bring home as a measure of Security. Manuals will be studied prior to any actual operation during the employees first few days on the job.

Cultivation Facility Layout and Access by Personnel/Department: The Cultivation Facility is designed in such a way that employees access is limited to the area of their work duties for the day. This will, in turn lower the security risk of unnecessary visitation into the facility. Oftentimes employees of La'au Pono will have multiple responsibilities that may require them to enter several different locations throughout the facility. However, these employees will only have access by way of managers and security. Therefore team members will have to check into each room with a manager or a security guard, in order to verify their purpose in the particular area of the the cultivation site. (See Appendix ##-## Cultivation Blue Print)

The four major zones within the Cultivation Facility are [redacted]. There is also the common area in which employees can utilize as the general break room. This room is equipped with a full kitchen, washer/dryer for employee uniforms, lockers and a full bathroom with shower. The break room will also be

attached to the first room that all employees will enter when entering the facility. As mentioned previously, the entrance room will also provide as a buffer between outside contaminants.

Entrance(s) to Facility: [redacted]

[redacted]

[redacted]

Locker Rooms/Break Room: The Locker Room and Break Room are for all employees to use during breaks and prior to beginning their work workday. This will be the first and last room entered for all employees when entering the cultivation facility. The Locker Room and Break Room may be accessed by all employees using their identification key cards. Prior to their scheduled work shifts, all employees must change into company uniforms before to leaving the break room. Additionally, employees who are working in the Cultivation Facility or the Laboratory must

shower and change into uniforms prior to entering their designated work rooms. This is mandatory to promote workplace hygiene and cleanliness and to prevent contamination of the facility.

Security Room: [redacted]

Trimming Room: [redacted]

Laboratory: [redacted]

[redacted]

Office: [redacted]

Vault: [redacted]

16

Mother Room: [redacted]

Cloning Room: [redacted]

Vegetation Rooms: [redacted]

17

Flowering Rooms: [redacted]

Drying Room: [redacted]

Packaging/Refining Room: [redacted]

18

[redacted]

EXPECTED RESOURCE USAGE

Environmental Conditions: The air conditions of each room at La'au Pono will be tested and monitored constantly to assure optimal conditions for both cultivation and manufacturing. Air temperature, Relative Humidity (RH) and CO2 levels all have a significant impact on the quality of medical marijuana cultivation. Therefore, each room will be designed as a sealed room with a slight reverse air flow. Reverse airflow allows minimal air to be exchanged between each room at all times. The fundamental benefits to reducing the air flow are that in doing so, we are lowering CO2 usage, and reducing the amount of air necessary to run through HEPA filters in each individual cultivation room. In the event of any malfunction, generating a reverse air flow allows for any small cracks or leaks in the system to push air out, to ensure disease and pest prevention.

Cleanliness: Cleanliness and sanitation are of the utmost importance. All employees, upon arrival to work will enter the locker room where they will shower, and change into a clean uniform. La'au Pono's cultivation facility is designed to prevent all pests and disease infestations by enforcing healthful practices throughout the cultivation site. La'au Pono employees will use sanitation mats set strategically at the entrance of the building as well as moving to and from designated grow areas, processing areas and/or manufacturing areas. All employees must also utilize sanitation stations prior to returning to their work from breaks, including restroom breaks.

*Lighting: T*hroughout the cultivation site, La'au Pono will ensure the consistent use of Light Emitting Diode (LED) lighting as it been proven to grow healthier more robust cannabis than conventional HPS, fluorescent or Metal Halide Lighting. Not only are growth yields more abundant, LED lighting also promotes our environmental impact for energy efficiency. Vegetative rooms will be equipped with 390 watt LED lights and flowering rooms will be equipped with 600 watt LED lights. LED lighting will be used for cultivation throughout the entire cultivation process. [redacted]

Temperature: Climate is the most important dominating factor influencing the suitability of a crop to a particular region. Therefore, it is imperative that room temperatures are thoroughly and consistently monitored, as the growth of medicinal marijuana is highly dependent on the level temperatures. Room temperature for all vegetation, flowering, propagation and the mother room will be maintained at a high of 80F and a low of 68F. Work areas including, the trimming room, the lab, locker rooms, packaging room, refining room, security room and offices will all remain at a temperature between 70-75F. Drying and Vault rooms will be held at a temperature of 68F. It is imperative that temperatures are steady, as the well-being of the plants are dependent on the proper temperatures.

All temperatures will be monitored on a central system, to ensure accurate and punctual readings of individual room temperatures throughout the cultivation site. Temperatures will be checked and logged for all locations every 4 hours. In the event of any inconsistencies in the air circulation system, an alarm system will inform employees on site of temperatures rising above 82F or

dropping below 66F. All employees will be trained and knowledgable on functionality and operating the temperature system.

Humidity: Relative Humidity (RH) -or the ratio of actual water vapor content to the saturated water vapor content at a given temperature and pressure expressed in percentage (%), directly influences the water relations of plant and indirectly affects the stages of growth. Plant vegetation areas will be held at a Relative Humidity (RH) of 60-80% humidity, while the flowering rooms will be held at a RH of below 45%. Drying and storage rooms will be held at a RH of less then 40%. All other work areas will be held at a RH of below 60%. Individual rooms will have their own dehumidifiers in order to maintain these RH. The RH will be monitored on a central system, allowing trouble shooting to happen if necessary on a daily bases. RH will be checked for all rooms every 4 hours and logged.

Co2: The benefits of carbon dioxide supplementation on plant growth and production within the greenhouse environment, Carbon Dioxide (CO2) is an essential component of photosynthesis. When temperatures are increased upwards of 80F, plants can grow as much as 30% faster than 76F. In order for plants to be able to maintain these higher growth rates they need higher levels of CO2 in the environment. More water and nutrients will also be required, and a machete may be necessary to control the added, sometimes startling extra growth rates possible on most plants by using CO2 enrichment. CO2 supplementation will be used to expedite growth, however, this is not necessary in all steps of cultivation. Both the vegetation and flowering rooms we will maintain CO2 levels of 1000-1500 PPM, where the standard CO2 levels currently fall at 400

PPM. As mentioned previously, our sealed room approach and minimal air exchange between rooms will not only ensure pest and disease control, but will also maximize CO2 efficiency.

Air Circulation: All growing rooms will have wall-mounted fans to a create large amount of air-flow within the canopy of the plants. In addition to the fans circulating air from above, there will be fans at floor level to create airflow on the soil. Multiple levels of airflow will assist in dehydrating the top soil, therefore lowering any chances of mold or unwanted bacterial growth in the topsoil.

Each room within the La'au Pono Cultivation site will also have its own heating and cooling vents to prevent cross contamination via air flow. All air flow entering into the building as well as individual rooms will have High-Efficiency Particulate Arrestance (HEPA) Filters to prevent, fungus, mold, bacteria from entering these rooms. All walls will be sealed between each room in order to maintain the air quality of each individual room.

Odor Control: Each room within the cultivation center will be equipped with it's own Charcoal Filter to help neutralize the initial smell with in the room. The over all building will have a reverse airflow creating a vacuum on the building which will be ran through numerous charcoal filter spread out amongst the building. The Cultivation facility will contain a three-phase odor reduction system to eliminate odor within and around our production facility. Medical marijuana production is organized into a series of separately sealed zones including but not limited to: vegetative, flowering, trimming, curing, storage, processing, infused products, and hallways connecting rooms. Within each zone, a predetermine number of activated carbon filters will circulate

and scrub the air at a flow rate calculated to filter all the air in the room every 15 minutes. Each zone will maintain neutral air pressure created by exhausting the air through one point at the same rate fresh air enters the zone. The exhaust from each zone is filtered a second time through an activated carbon filter before entering a sealed ducting system to be transferred to a common air bank. Before exiting the building through a stack system, all exhaust is filtered a third time through a series of activated carbon filtration screens thoroughly reducing odor emission rates.

Drainage: PVC tables will be built into each vegetation room. The function of PVC tables will be to collect water for functionality as well as a comprehensive drainage system. All plant pots will sit within all these tables to allow for proper drainage. These PVC tables will then drain out of each room that will connect to floor drains that will be placed strategically throughout the La'au Pono Cultivation Facility.

Water Usage: Based on the expertise of La'au Pono's Agronomist Bob Schaffer and our cultivation manager Kristopher Jacobson, we have calculated the average amount of water usage to produce 1 pound of medical marijuana. Environmental Conditions within all areas of the facility used to produce medical marijuana and marijuana manufactured products shall be strictly monitored and controlled in order to provide the proper atmospheric conditions to support the growth and health of medical marijuana plants.

Water supply shall be purchased directly from state and city water supplies ensuring adequate supply for operations and regulated quality of water. All operations in the receiving, inspecting, transporting, segregating, preparing, producing, packaging and storing of medical marijuana and marijuana manufactured products shall be conducted in accordance with all sanitation and cleanliness protocols. Given the cultivation methods and indoor growing techniques will use an estimated 75 gallons throughout its life span. The average amount of medical marijuana produced through La'au Pono Cultivation site will be 2,000 pounds per year leading to our estimated water consumption of 150,000 gallons annually.

Power

Power consumption for the Cultivation Site is estimated at the following levels

All power is estimated at 220V		Estimated Year KWH
Lighting for cultivation area	1,400 Amps	2M
Receptacles for cultivation	200 Amps	285K
Lighting for manufacturing area	100 Amps	143K
Receptacles for manufacturing area	200 Amps	285K
HVAC for entire building	1,400 Amps	1M

Please see pages "##-##" for lighting design.

SOIL COMPOSITION

Microbes: Bacteria and fungus feed on each other and excrete pure humus into the soil. It is imperative to use at a minimum of 15-20% soil in planting mediums in order to provide a solid

foundation for beneficial bacteria and fungal growth. These beneficial organisms provide all the aspects needed within the growing substrate to ensure plants reach MGP. The cultivation facility manager and each respective zone manager shall manage the application of organic soil composts and teas.

Humus: Nature's perfect plant food, humus has all necessary macro and micronutrients to support vigorous root growth and a healthy plant life cycle. The soil component of all media should contain a good source of humus. Each zone manager shall utilize humus soil within the growing media.

Worm Casting: Made up from the excretions of the earthworm, worm castings are a great amendment for both the porosity of the media and the microbial life within the media. Each zone manager shall utilize worm castings in all transplant media and in the creation of compost teas to be fed throughout the plant's life cycle.

Coco Coir: Coco coir with a top drip-feeding system is the recommended replacement for hydroponic gardening as it solves every problem associated with hydroponics and can achieve similar results. Hybrid system utilizes coco coir as a component while still utilizing an organic base for additional terpene profile and overall plant vigor and health. These semi-soil strategies may be deployed on an as needed basis.

Aeration/Porosity Components of Soil: The following components of growing media will provide aeration and porosity thus allowing drainage, oxygenation, and microbial growth resulting in a healthy root zone and robust plant:

- Perlite
- Worm castings

Moisture/Water Holding Capacity: A good growing medium will have ample water holding capacity and still be porous enough to allow excess water to drain away. In cannabis gardening, coconut coir is a perfect inert substrate that will hold water. It is imperative to strive towards the perfect balance between water holding capacity and drainage by utilizing a mix of absorbent substrates and porous substrates.

Moisture Water Holding Components of Soil Blends: The following components will provide water-holding capacity and should be used in balance with porous additions to maintain the proper moisture/oxygen/nutrient balance with in the root zone:

- Coco Coir
- Humus soil
- Potting soil

Tools for Soil Composition : Mixing tub, Flathead shovel, 2 and 5 gallon measuring buckets.

Ingredients for Nutrient Rich: Fox Farm (Potting , Ocean Forest, Perlite, Coco Coir, Hummus Soil, Worm Casting, Spirulina and other amendments.

Ratio: 50% Soil, 20% Coco Coir, 20% Perlite, 5% Worm Casting, 5% Humus Soil, .1% spirulina.

Directions: Starting with the lightest materials, measure and add Perlite. Measure and add Coco Coir. Measure and add Worm casting. Measure and add Humus Soil. Measure and add Spirulina. Measure and add soil. Mix all ingredients together until mixed in evenly.

Compost Tea: Compost tea is a good overall plant health booster. Remember—healthy plants are better able to resist pests and diseases. Compost tea is liquid extract of compost that contains plant growth compounds and beneficial microorganisms. Liquid extracts have been used for hundreds of years in agriculture to promote plant and soil health. These extracts have historically been derived from a wide range of plant materials and animal manures, using a variety of processing methods. Aerated Compost Tea is a more recent concept that incorporates aeration technology to create optimum levels of oxygen for growth and reproduction of beneficial aerobic microorganisms.

- Measure out amendments based on cultivation phase
- Put amendments into tea bag and hang in water
- Add molasses, turn on water circulation and air pumps
- Let brew for 24 hours
- Check ppm and either use for watering or add molasses and continue brewing.
- Mix tea at a rate of 3:1 with fresh water in irrigation tank

Organic Nutrients: Organic bottled nutrients: 100% OMRI certified bottled nutrients will be

used from time to time to increase a specific nutrient if any signs of a deficiency shall show.

CULTIVATION METHODS

Medical Marijuana Life Span: The following steps will be taken to ensure the quality of the medical marijuana, including purity and consistency of dose and the presence of potential contaminants. This includes standard operating procedures, a description of the testing process and frequency, and plans to engage with a lab to conduct the testing. The following processes also include seed to sale tracking to ensure all medical marijuana and medical marijuana products are constantly secured throughout the life cycle.

Batch Rotation System: [redacted]

Mothers: A Mother plant is of female plant that is coveted. The Mother is kept under a 24 hour lighting system and used for taking clippings (Clones). By using a mother plant, the cultivator can assure that the quality will be consistent through out all of the plants, as they will all share the same DNA. Mothers shall be tended to as follows:

- Mother plants shall be watered with a well-balanced nutrient formula that is high in nitrogen.
- The mother plant shall be sufficient in size prior to cloning.
- Super cropping and topping techniques shall be followed to increase the number of cloning sites on each mother plant.

We will have 5 mother plants for each variety assuring that there will always be a healthy supply of clippings. These 5 mother will have come from clipping of one mother plant to start with, that has been verified to be the actual genetics which it is called through THC, CBD and terpene testing.

Cloning: In order to achieve a high success ratio between clones clipped from a mother plant and the amount of rooted clones, La'au Pono emphasizes thorough cleanliness in every step of the process. All cloning will be conducted and/or supervised by cultivation manager.

Clones will be taken from mother for a specific flowering room the day after the room is done being harvested. This will allow us to have a cycle that always keeps our plant numbers within

the allowable limits. Clones will be taken from the mothers at no more the ½ of the available clipping sites to assure healthy robust mothers.

Materials: New razor blades, rubbing alcohol, distilled water, plastic gloves, cloning gel, rapid rooter plugs, tray for plugs, cutting board, scissors.

Cloning Medium: We typically have a success rate of 90% or higher when we use rapid rooter cubes. This will be the method we use for Hawaiian Ethos.

Procedure for taking Clones:

- The cultivation manager will identify which mothers to be cloned from based on the harvested variety from the day before.
- All tools and equipment must be sterilized and the growing assistant and manager must put on a new uniform as well as wear new gloves.
- Fill clean glass beaker with distilled water
- Use a sterilized set of scissors to poke holes into rapid rooter cubes.
- Place cutting board on stainless steel worktable with a pile of new razor blades.
- Select clipping from mother plant 3-4 inches long and cut with scissors.
- Immediately place into distilled water
- Cut about 20 clippings and place in water allowing to soak
- Carefully re cut the bottom of the clipping while still under water
- Remove clipping and dip into rooting hormone

- Gently slide the clipping into one of the pre poked holes in the rapid rooter plug
- Place the clone into the Rapid Rooter cloning tray
- Once the tray is full, relocate under LED lighting
- Maintain temperature of 80F and humidity of 80%
- After 12 days remove all weak cuttings. At this stage enter all removed clippings into the tracking system as destroyed.
- As soon a s clipping is removed from the mother plant it will be entered into the tracking system and assigned an RFID number.

Watering Clones: Clones must be checked daily to assure that there is a small amount of water in the bottom of the tray. This water is used to maintain moisture in the cubes as well keep humidity at 80%.

Transplanting Clones: Once the clones are fully rooted (10-14 days) they will be transplanted into 4 in square pots filled with a blend of 50% soil 50% perlite. At this stage we will choose the healthiest 90% of the clones and dispose of the remaining ones. They will be logged in the RFID system as either transplanted or destroyed.

Early Vegetative Phase 1 (P1): At this stage, the plants will be moved to the Vegetation Room where they will be placed under LED lighting. Plants will remain in this stage for 3-4 weeks. They will be watered when needed, on average every 1-3 days.

Transplant P1: At 3-4 weeks, the P1 plants will be transplanted from their 4 inch pots into 2 gallon pots. Only the healthiest 95% will be up-potted and the rest will be destroyed. This will be recorded and tracked with the RFID.

Watering Transplants: Post transplanting, plants require special attention in watering to ensure proper root development. The vegetative manager shall ensure all new transplants are given water and nutrients by the following process:

- Prepare vegetative nutrient solution.
- Water plant's current root zone.
- Wait until nearly dry, water entire container.

Late Vegetation: Late Vegetation P2 (Phase 2) Plants will be moved into one of the 8 vegetation chambers where they will be placed under LED lighting. This stage will require watering with compost tea every 1-3 days when needed. Plants will stay in P2 for about 4 weeks. During this stage the plants will be topped so that they begin to bush out creating more then one top shoot for each plant, allowing each plant to cover a larger surface area.

Transplant P2: After about 4 weeks in the P2 phase the plants will be ready to go into their final room. The day that they are transplanted into the flowering room will reflect when that flowering room is harvested. P2 plants will be up-potted into 15 gallon pots entering them into P3.

*Flowering:*Phase 3 flowering room (P3): The flowering room is where the plants will begin to receive only 12 hours of light followed by an uninterrupted 12 hour dark period. Plants will be in the flowering room and repeat this cycle for up to 10 weeks. Some varieties of cannabis only require 8 weeks such as blue dream, while others some as any as 10 weeks such as sour diesel to fully develop to maturity. Upon entering the flowering room we will hang horizontal netting across the entire canopy. After 3 weeks of flowering, cultivators will hang another horizontal net parallel to this one about 4-18 inches higher. These nets will help support the weight of the flowers in later development and prevent them from becoming top heavy and potentially following over. At 3 weeks of flowering we will prune all underbrush from the plants. Underbrush is any leaf or branch that is not in direct contact with the lighting. This is a measure for disease and pest prevention as well as allowing the plant to focus their energy on the more productive parts of the plant.

Flushing: During the flushing phase the flowering zone manager shall stop giving plants all nutrients and instead seek to purge all remaining nutrients from the substrate by forcing fresh water through the plant's root system. The following process shall be used through each flowering zone to prepare plants for harvest and ensure the highest quality finished product.

Materials for Flushing Finished Plants: Two gallons of living water for every gallon of substrate within each zone.

- Determine the plants to be flushed a minimum of 14 days prior to harvest.
- Water each plant at its normal watering schedule with an abundance of fresh water.

- Sufficient run-off should be attained during each flushing session in order to strip away all remaining sugars and salts.

Harvesting: Once the trichomes (or small are 30-40% amber color we will schedule a harvest date. In order to protect the quality of the final medicine we prefer dry trimming the medical marijuana. When harvesting begins we will be removing all major fan leaves from the plant and breaking them down into manageable size branches about 10-30 inches long.

Drying: The drying process consists of slowly removing the majority of moisture from finished medical marijuana in a manner that preserves and increases the efficacy of each batch. The harvested medical marijuana has moisture content of approximately 80% and in the drying process, the goal is to reduce moisture to 15%. Drying and curing of product will take place in these rooms, all of which will contain a shelving system and a hanging system for drying product. Product to dry will be hung in one of our 4 drying rooms. They will dry for 6-9 days prior to being brought into the trimming room. The curing and storage area shall contain a shelving system where storage vessels containing nearly finished and finished product will be cured and then stored in a secured fashion while awaiting test results.

Batch Segregation: The processing manager will ensure each batch remains segregated to avoid cross contamination and in order to maintain strict inventory control. Each batch will be clearly labeled and tagged with RFID and its exact location will be clearly defined and tracked at all times.

Traceability: BioTrackTHC™ provides effective cutting-edge technology solutions for the emerging legal medical marijuana industry that (1) prevents product theft; (2) assists business owners with running their cultivating, packaging, and retail operations more profitably and to better comply with the law; (3) all without leaving sensitive business and consumer data vulnerable in the cloud. Specifically, BioTrackTHC™ is the industry's only true seed--to--sale software system with enterprise resource planning, complete inventory tracking, point -of -sale, marketing, financial reporting and regulatory compliance features. Because it is a server based system with advanced security features, patients can rest assured that no one, not even the BioTrackTHC™ team can access their business or consumer information without their permission. Please see the BioTrackTHC attachment to this section for more information.

Prior to being milled and off-gassed, all products will be quarantined until initial test results come back from our internal laboratory. All samples to be tested will be randomly selected by a laboratory personnel. Once the test result come back, all medical marijuana that does not meet qualifications for further processing shall be quarantined and destroyed in accordance with the process for medical marijuana waste. All medical cannabis that passes initial testing shall be further refined. La'au Pono will conduct in-house sample testing as well as third-party sample testing:

- *Sprouted seed and clones*: Receive RFID batch number and tag, tracking begins
- *Transfer to V2:* RFID scanned, location changed, data recorded and transferred
- *Transfer to V3:* RFID scanned, location changed, data recorded and transferred

- *Transfer to designated Flowering Room:* RFID scanned, location changed, data recorded and transferred
- *Harvest*: RFID scanned, weight recorded, location changed, data recorded and transferred
- *Trimmed*: RFID scanned, weight recorded, location changed, data recorded and transferred
- *Drying:* RFID scanned, weight recorded, location changed, data recorded and transferred
- *Curing, Pre-testing*: Secured/lock down for testing results, RFID scanned, weight recorded, location changed, and data recorded and transferred
- *Curing, Post-testing*: If approved for release; RFID scanned, weight recorded, location changed, data recorded and transferred
- *Processing*: Labeled, RFID scanned, weight recorded, location changed, data recorded and transferred to secured safe to await delivery to store location.
- *Delivery*: RFID scanned, weight recorded, location changed, data recorded and transferred to transport vehicle [redacted]

Preparing Inventory for Delivery:

Material will be packaged and inventoried at the production facility. In accordance to medical marijuana rules and regulations defined by the Department of Health, prior to transporting materials, Transportion Manifests will be generated on forms prescribed by the DOH.

Orders and Deliveries will be prompted by Purchase Order (PO) made by the Dispensary entity, Hawaiian Ethos. Upon receipt of PO, La'au Pono personnel will compile inventory requested, and create a Transportation Manifest, documenting the entirety of the PO. Orders will be brought from the storage of medical marijuana products, to the secured Vehicle entrance where there will be security cameras and surveillance documenting each step of the inventory and delivery preparation process. Both Manager and Security Guard will inspect and confirm that the PO, inventory, and Transportation Manifest match without any discrepancy. Products will be loaded in delivery vehicles and delivery personnel will strictly adhere to the rules and regulations set forth by the DOH for transporting medicinal products between La'au Pono and Hawaiian Ethos Dispensary.

Transportation: All applicable state and local laws and regulations will be strictly adhered to by all organization team members. The distribution facility manager will be responsible for creating and implementing a process for the transportation of various products to other distribution facilities. ## see Appendix Transportation guide.

Receiving Damaged Inventory: All practices regarding receiving damaged inventory from Hawaiian Ethos will adhere to all rules and regulations set forth by the DOH. Each step from Hawaiian Ethos to site will be closely monitored and recorded and received by the Cultivation Manager and Head Security of the La'au Pono Cultivation Site. Upon the arrival of the transport vehicle, delivery personnel will present a Transportation Manifest created by Dispensary (see appendix ##-## Transportation Manifest), and the receiving party will take inventory, through

BioTrackTHC, of transported materials, indicate the time and date received, take custody of all transported materials and sign off on the completed transport manifest. The manifest will indicate the following:

- Date of disposal;
- Method of disposal; and
- Name and registry identification number of the cultivation personnel responsible for the disposal.
- Inputted into BioTrackTHC as To Be Disposed Inventory.

La'au Pono personnel will then take steps to dispose damaged product in accordance with state and local laws set forth by the DOH.

HAZARDOUS WASTE

There are a variety of safety provisions that regulate the management, storage, and disposal of hazardous waste. La'au Pono complies with all of these regulations to ensure the safety and health of our employees, clients, and customers.

For the purposes of this policy, "hazardous waste" is defined as any substance no longer in use with chemical and/or biological properties that may harm or endanger employees, material, or the environment if handled improperly.

Employees should ensure that as little hazardous waste is generated as possible. When using hazardous material, use sparingly and carefully in accordance with Hawaiian Ethos' chemical use and storage policies.

Employees are not to use plumbing systems to dispose of hazardous waste, regardless of whether or not they are "chemically resistant". Each department containing hazardous chemicals is equipped with appropriate disposal containers, labeled for each type of waste.

Different types of chemicals waste must be segregated in order to avoid unnecessary mixing. Regular trash containers are not to be used to dispose of such waste.

Questions regarding this policy should be directed to your supervisor.

CHEMICAL STORAGE

Chemical toxins pose a substantial risk to employees in the workplace and may cause injuries or fatalities if handled incorrectly. La'au Pono recognizes this and intends to defend the safety of all our workers by requiring employees to follow the guidelines set forth in this policy.

All chemicals must be stored in original labeled containers or bottles and must be placed only in authorized storage areas. Furthermore, all chemicals must be stored by category and apart from one another to prevent unplanned blending.

For further information on storing chemicals, employees should see the Material Data Safety Sheets (MSDS), which are found in authorized storage areas. In the event a leak of unknown origin is discovered in the storage area, the employee should alert their supervisor as soon as possible to determine severity and whether evacuation is necessary.

Employees of La'au Pono are expected to recognize and identify the risk of carelessness in chemical storage and use preventive measures to assure the health and safety of every staff member.

Material Data Safety Sheet (MSDS): La'au Pono considers employee health and safety to be of utmost importance. As such, in accordance with our Hazard Communication standard, we ensure that all departments containing hazardous chemicals are equipped with Material Safety Data Sheets (MSDS's). An MSDS is a detailed informational document prepared by the manufacturer or importer of a hazardous chemical describing the physical and chemical properties of the material and its potential hazards.

The MSDS includes the following information:

- The identity of the hazardous components of the chemical;
- The health and physical hazards of the chemical;
- Protective measures and equipment to be used if exposed to the chemical;
- Appropriate method(s) of disposal; and
- Manufacturer's contact information.

Questions regarding this policy should be directed to your supervisor.

The La'au Pono employee training plan must consist of the following elements:

- How the hazard communication program is implemented in that workplace, how to read and interpret information on labels and the MSDS, and how employees can obtain and use the available hazard information.

- The hazards of the chemicals in the work area. (The hazards may be discussed by individually chemical or by hazard categories such as flammability.)
- Measures employees can take to protect themselves from the hazards.
- Specific procedures put into effect by the employer to provide protection such as engineering controls, work practices, and the use of personal protective equipment (PPE).
- Methods and observations -- such as visual appearance or smell -- workers can use to detect the presence of a hazardous chemical to which they may be exposed.

The personal safety and health of each employee of this company is of primary importance. La'au Pono's policy is to maintain a safe and healthy working environment at all times, and to comply with Occupational Safety and Health Administration (OSHA) regulations as well as state and local safety requirements.

WASTE DISPOSAL

All waste, including waste composed of or containing finished medical marijuana, such as infused products and extracts, will be stored, secured, and managed in accordance with applicable state and local statutes, ordinances, and regulations including but not limited to rules set forth in Hawaii Administrative Rules Chapter 11-850-20. The manufacturing facility shall maintain a record of all disposals for a minimum of five years. Facility management will ensure proper training and implementation of destruction and disposal procedures and protocols. Waste disposal systems is professionally installed and maintained in order to ensure proper disposal.

Disposal of Liquid Waste: Liquid waste will be blended with leftover materials pulled from the growing medium such as old roots and then added to the incinerator. Projected annual liquid waste is estimated at less then 10 gallons.

Waste Processing Center: The manufacturing facility will contain a designated waste holding and processing room designed to keep waste secured and segregated from the rest of the manufacturing facility. The entire waste processing center shall be recorded on high definition video and remain locked at all times. The processing center shall contain a shredder/grinding machine, multiple containment vessels, at least two large mixing containers, additional processing medium/substrates, and interior entrance and exterior exit points. The processing center will also contain an installed commercial medical-grade incinerator. The MediBurn incinerator can process (13) cubic feet of material at a time and is a diesel-fueled medical waste incinerator for hospitals and military. The system is environmentally safe, compact, and easy to operate. La'au Pono has confirmed the systems' compliance with local air quality control and EPA standards for emissions, which are kept low through comprehensive air filtration systems.

Preparation of waste shall be contained within the secured processing center in order to prevent any cross-contamination with any cultivation areas or product processing areas, and to avoid any possibility of product diversion.

Disposing of Waste: A minimum of seven days prior to rendering the secured green waste unusable and disposing of said waste, employees of La'au Pono manufacturing Facility team shall utilize the traceability system built into the BioTrackTHC software, to notify the

DOH and if needed, local law enforcement, that such product shall be rendered unusable and disposed of. Immediately before the green waste is processed for disposal it shall be re-weighed by the cultivation operations manager and at least one other staff member and all information will be recorded including: weight, time, date, and employee names present; material barcodes will also be scanned and their status updated at this time, as well.

After capturing all pertinent data, logging, and entering into the BioTrackTHC software system, all waste shall be rendered unusable and prepared for disposal. The manufacturing facility operations manager shall oversee the entire waste disposal process and ensure it is done properly and according to operations guidelines including all applicable state and local statutes, ordinances, and regulations including but not limited to Hawaii Administrative Rules Chapter 11-850-20. All waste processing and disposal shall be recorded on video surveillance.

Materials Needed for Processing Waste:

- *Mixed Bio-waste:* Food waste, plant waste, bio-grease or oils.
- *Mixed Manufacturing waste*: Paper, cardboard, plastic waste, and soil.
- *Pre-Processing for Medical Marijuana & Plant Material Waste:* Place medical marijuana in grinder and mulch until all pieces are smaller than .5cm in length. Mix the medical marijuana waste thoroughly with other ground materials so that the resulting mixture is a minimum of 50% non-medical marijuana waste.

All disposal processing at the La'au Pono Cultivation Center will strictly adhere to the to all state and local laws. [redacted]

SANITATION AND SAFETY PROTOCOL

Importance/Priority: Safety is of the utmost importance when handling all matters of La'au Pono. This includes the safety of our team, the process in which we manufacture our medicinal products, and the medicine that we provide to Hawaii Island Patients. As such, we maintain strict sanitation protocols in order to prevent contamination of employees and/or products. Maintaining a high standard of cleanliness within the Cultivation Facility is mandatory in order to minimize the risk of exposure to contaminants. In addition to our prevention protocols we adhere to strict protocols in the event of a contaminated product and/or personnel. Please see the following for details of our system and process. The Cultivation Facility employees will take all measures ensure the following precautions are met:

- That any person who, by medical examination or supervisory observation, is shown to have, an illness, open lesion: including boils, sores, or infected wounds, or any other abnormal source of microbial contamination. Until these abnormalities have subsided;
- That hand-washing facilities shall be adequate and convenient and be furnished with running water at a suitable temperature. Hand-washing facilities shall be located in the licensed premises and/or in medical marijuana products preparation areas and where good sanitary practices require employees to wash and/or sanitize their hands, and provide effective hand-cleaning and sanitizing preparations and sanitary towel service or suitable drying devices;

- All operations in the receiving, inspecting, transporting, segregating, preparing, producing, packaging, and storing of medical marijuana shall be conducted in accordance with adequate sanitation principles.

- That all persons working in direct contact with preparation of medical marijuana products shall conform to hygienic practices while on duty, including but not limited to:

  - Maintaining adequate personal cleanliness;

  - Washing hands thoroughly in an adequate hand-washing area(s) before starting work, prior to engaging in the production or contact with any materials, is mandatory without exception of other practices.

  - Having no direct contact with preparation of medical marijuana if the person has or may have an illness, open lesion, including boils, sores, or infected wounds, or any other abnormal source of microbial contamination, until such condition is corrected.

- Floors, walls and ceilings will be constructed in such a manner that they may be adequately cleaned and kept clean and in good repair.
- There will be adequate lighting in all areas where medical marijuana is stored and where equipment or utensils are cleaned.
- There will be adequate screening or other protection against the entry of pests. Rubbish shall be disposed of so as to minimize the development of odor and minimize the potential for the waste becoming an attractant, harborage or breeding place for pests.

- Toxic cleaning compounds, sanitizing agents, and solvents used in the production of medical marijuana concentrates shall be identified, held and stored in a manner that protects against contamination of medical marijuana, and in a manner that is in accordance with any applicable local, state or local law, rule, regulation or ordinance.
- All contact surfaces, including utensils and equipment used for the preparation of medical marijuana products shall be cleaned and sanitized as frequently as necessary to protect against contamination.
- Plumbing shall be of adequate size and design, and adequately installed and maintained, to carry sufficient quantities of water to the required locations throughout the facility.
- Water supply shall be purchased directly from state and city water supplies ensuring adequate supply for operations and regulated quality of water. All operations in the receiving, inspecting, transporting, segregating, preparing, producing, packaging and storing of medical marijuana and marijuana manufactured products shall be conducted in accordance with all sanitation and cleanliness protocols
- Each manufacturing facility shall provide its employees with adequate and readily accessible toilet facilities that are maintained in sanitary condition and good repair.

HawaiianEthos

La'au Pono Employee Manual

LA'AU PONO

EMPLOYEE HANDBOOK AND CODE OF ETHICS

1

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RECEIPT OF LA'AU PONO EMPLOYEE HANDBOOK

The Employee Handbook is a compilation of personnel policies, practices and procedures currently in effect at La'au Pono, an equal opportunity employer. The Manual handbook and the information within it are confidential.

This handbook is designed to introduce employees to the organization, familiarize you with La'au Pono policies as they pertain to you as an employee, provide general guidelines on work rules, disciplinary procedures and other issues related to your employment, and to help answer many of the questions that may arise in connection with your employment.

This handbook and any other provisions contained herein do not constitute a guarantee of employment or an employment contract, express or implied. You understand that your employment is "at-will" and that your employment may be terminated for any reason, with or without cause, and with or without notice. Only the CEO or other authorized representative(s) of La'au Pono has the authority to enter into a signed written agreement guaranteeing employment for a specific term. This handbook is intended solely to describe the present policies and working conditions at La'au Pono. This handbook does not purport to include every conceivable situation; it is merely meant as a guideline and, unless laws prescribe otherwise, common sense shall prevail. Of course, federal, state and local laws will take precedence over La'au Pono policies when applicable.

Personnel policies are applied at the discretion of La'au Pono. La'au Pono reserves the right to change, withdraw, apply or amend any of our policies or benefits, including those covered in this handbook, at any time. La'au Pono may notify you of such changes via email,

or via a printed memo, notice, amendment to or reprinting of this handbook, but may, in its discretion, make such changes at any time, with or without notice and without a written revision of this handbook.

By signing below, you acknowledge that you have received a copy of La'au Pono's Employee Handbook, and understand that it is your responsibility to read and comply with the policies contained within it and any revisions made to it. Furthermore, you acknowledge that you are employed "at-will" and that this handbook is neither a contract of employment nor a legal document.

_____ _____

Signature Date

_____

Please print your full name

Please sign and date one copy of this notice and return it to Human Resources. Retain a second copy for your reference.

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WELCOME MESSAGE

Dear Valued Employee,

Welcome to La'au Pono! We are pleased with your decision to join our team.

La'au Pono is committed to providing superior quality and unparalleled customer service in all aspects of our business. We believe each employee contributes to the success and growth of our company.

This handbook is designed to acquaint you with La'au Pono and provide you with general information about working conditions, benefits and policies affecting your employment.

The information contained in this handbook applies to all employees of La'au Pono. Following the policies detailed within the handbook is considered a condition of continuous employment. The contents of this manual shall not constitute nor be construed as a promise of employment or as a contract between the Company and any of its employees. The handbook is a summary of our policies, which are presented here only as a matter of information.

You are responsible for reading, understanding and complying with the provisions of this handbook. Our objective is to provide you with a work environment that is constructive to both personal and professional growth.

Welcome aboard. We look forward to working with you!

Sincerely,

CEO

CHANGE POLICY

La'au Pono understands that change is a very important part of growth. Therefore, we reserve the right to modify, suspend, cancel or question all provisions of this handbook with or without notice; any and all parts of our policies, procedures, and benefits at any time. Changes will be effective and updated on the dates designated by La'au Pono, and subsequently all previous policies and regulations will be applicable.

Please note that individual managers or supervisors do *not* have the authority to alter or change any policies on their own.

Please consult a supervisor or the Director of Human Resources with any clarifying questions on unclear policies and/or procedures.

LA'AU PONO EVENTS

At times, social events will be hosted by La'au Pono for employees to attend. These events may take place due to the hiring or promotion of an employee, or for other reasons.

Some events will be celebrated with a group luncheon, arranged by management. Other events (such as employee birthdays or service anniversaries) will be recognized with a card or gift from Human Resources. At times, La'au Pono may also host parties or social gatherings outside of working hours. These events may take place to celebrate holidays or La'au Pono successes, or for many other reasons.

At all La'au Pono social functions, employees are responsible for behaving in a professional manner. While alcohol may be served, employees should refrain from becoming intoxicated in order to avoid disruptive behavior.

Even at social functions, employees must remember that they are representing La'au Pono and need to ensure that they are upholding La'au Pono's positive reputation at all times.

GENERAL EMPLOYMENT

NATURE OF EMPLOYMENT

The policies set forth in this employee handbook are the policies that are in effect at the time of publication. They may be amended, modified, or terminated at any time by La'au Pono, except for the policy on at-will employment, which may be modified only by a signed, written agreement between La'au Pono partners and the employee act issue. Nothing in this handbook

may be construed as creating a promise of future benefits or a binding contract between La'au Pono and any of its employees.

EQUAL OPPORTUNITY

La'au Pono is committed to creating a diverse environment and is proud to be an Equal Opportunity employer. La'au Pono hires employees based upon qualifications and capabilities to perform the essential functions of the particular job. Pursuant to this commitment, La'au Pono does not discriminate on the basis of sex, gender or gender identity; race; color; national origin; religion; creed; age; disability; citizenship; marital or domestic partnership status; sexual orientation or affectional status; genetic predisposition or carrier status; military or veteran status.

This Equal Opportunity policy is a constant throughout all aspect of employment and including, but not limited to, selection, job assignment, compensation, discipline, termination, and access to benefits and training.

In order to maintain a safe and supportive work environment, La'au Pono strongly urges the report of all instances of discrimination and prohibits retaliation against any individual who reports discrimination or participates in an investigation of such report.

ETHICS

At La'au Pono, employees are held to the utmost ethical standard at all times. Because our employees are all representations of La'au Pono, and all actions of each individual are a reflection of La'au Pono itself. We encourage our employees to practice sound decision-making and to take actions that will preserve La'au Pono's culture of practicing the highest standards of both personal and business integrity. It is the responsibility of each employee to become familiar with and adhere to the policies and any supplemental policies and procedures to which your business and legal entity is subject.

We expect that *all* La'au Pono staff comply with our ethics policy and to refrain from engaging in any acts of illegal, dishonest, or unethical behavior. In the event that employees do not adhere to ethical standards, they may be subject to a number of disciplinary action including but not limited to suspension or termination. We encourage all employees to consult a supervisor if there is any question of ethical clarity.

CONFIDENTIALITY

At La'au Pono, we hold a high value our internal company information. It is the responsibility of all current and former employees to adhere to all aspects of confidentiality. In the event that employees do not adhere to confidentiality stated in this agreement, they may be subject to a number of disciplinary action including but not limited to suspension or termination. Confidential business information include but is not limited to:

- Any material developed using company resources and/or time;
- Compensation data;
- Computer processes;
- Computer programs and codes;
- Conversations between any persons associated with the company;
- Customer lists;
- Customer preferences;
- Financial information;
- Genetics library;
- Labor relations strategies;
- Marketing strategies;
- Medical cannabis research and developments;
- New materials research;
- Pending projects and proposals;
- Proprietary production processes;
- Personnel/payroll records;
- Research and development strategies;
- Scientific data;
- Scientific formulae;
- Scientific prototypes;
- Strains;
- Technological data; and
- Technological prototypes.

INTELLECTUAL PROPERTY

La'au Pono restricts employees' use and disclose of the company's confidential information and intellectual property (see above). Beyond these mandatory restrictions, you should treat La'au Pono valuable knowledge and other confidential information and intellectual property accordingly, so as not to jeopardize them through any vehicle of delivery. In addition, you should avoid misappropriating or infringing the intellectual property of other companies and individuals, as it could create potential liability for yourself and for La'au Pono.

Do not use La'au Pono's logos, brand names, tag-lines, slogans or other trademarks, or post any confidential or proprietary information of the company, without prior written permission.

Intellectual property includes, but is not limited to the following:

- Inventions;
- Discoveries;
- Trade secrets;
- Trademarks;
- Writings;
- Software;
- Marketing campaigns; and
- Product formulas

SOLICITATION

In an effort to ensure a productive and harmonious work environment, persons not employed by La'au Pono may not solicit or distribute literature in the workplace at any time for any purpose.

La'au Pono recognizes that employees may have interests in events and organizations outside the workplace. However, employees may not solicit or distribute literature concerning these activities during working time. (Working time does not include lunch periods, work breaks, or any other periods in which employees are not on duty.)

Examples of impermissible forms of solicitation include:

- The collection of money, goods, or gifts for political groups
- The circulation of petitions
- The distribution of literature not approved by the employer
- The solicitation of memberships, fees, or dues

In addition, the posting of written solicitations on company bulletin boards is restricted. These bulletin boards display important information, and employees should consult them frequently for:

- Affirmative Action statement
- Employee announcements
- Internal memoranda
- Organization announcements
- Workers' compensation insurance information
- State disability insurance/unemployment insurance information

If employees have a message of interest to the workplace, they may submit it to the Human Resources Director for approval. All approved messages will be posted by the Human Resources Director.

EMPLOYEE RELATIONS

La'au Pono sees an immense value in providing paramount work environments, wages and benefits for our team. In doing so we also encourage that employees communicate openly with supervisors and peers alike to cultivate and maintain a standard openness and positivity. Based on prior experience, we have found that positive working environment increases not only moral, but promotes positive work ethic, and raises overall happiness of employees.

If any La'au Pono employees develop concerns about work conditions and or compensation, they are strongly encouraged to discuss these concerns with their supervisors and/or the Director of Human Resources.

OPEN DOOR POLICY

La'au Pono is always willing and open to discuss business-related concerns as well as suggestions for improvements that are in relations to the well-being of the company and its successes.

Please contact the Director of Human Resources with any questions, concerns, and suggestions and we will be happy to address them.

EMPLOYEE IDENTIFICATION CARD REQUIREMENTS

In order to protect the welfare of the clients, customers, employees, and resources of La'au Pono, it is our policy– as well as a requirement under the law – to require employees to possess a Hawaii Department Health-issued Employee Identification Card. An employee of La'au Pono must keep his or her employee identification card visible at all times when on any La'au Pono property and during the transportation of medical cannabis to a distribution facility.

Applicants who apply for positions in which the essential job duties require the use of vehicles must have a driving record in good standing. A driving record check will be made only after a conditional job offer has been made pending the results of the check. For all employees, continued use of company vehicles is contingent on their maintenance of a good driving record, which will be assessed annually.

DRUG TESTING

In order to promote and maintain the well-being of our work environment, La'au Pono refrains from employing individuals use illegal drugs. Due to this policy, La'au Pono reserves the right to mandate any and all employees to adhere to a drug test as a continuing practice throughout the duration of their employment.

Drug tests will be administered as part of the application process as well as once they have been offered an employment opportunity. Refusal to submit initial drug test, or results testing positive for illegal drug use will result in denial of employment. Employees refusing to submit to a drug test, or employees who test positive, may be suspended from duty pending further investigation and subject to disciplinary action, up to and including termination of employment.

MEDICAL EXAMINATIONS

Purpose: La'au Pono requires current employees and applicants to whom a conditional offer of employment has been extended to undergo medical examinations whenever management determines that these are necessary for the safe operation of the organization or job-related as consistent with business necessity.

Scope: Successful applicants for employment may be required, as a condition of employment, to take a medical examination to establish their fitness to perform the jobs for which they have applied without endangering the health and safety of themselves or others. If management determines that an examination is appropriate to a particular position, all applicants for the job to whom a conditional offer of employment has been made should be examined.

Employees may be required to have a medical examination on other occasions when the examination is job-related and consistent with business necessity. For example, a medical examination may be required when an employee is exposed to toxic or unhealthful conditions, requests an accommodation for a particular disability, or has a questionable ability to perform essential job functions due to a medical condition.

Cost of Required Examinations: Medical examinations required by La'au Pono will be paid for by La'au Pono and will be performed by a physician or licensed medical facility designated or approved by the company. Medical examinations paid for by La'au Pono are the property of the company, and the examination records will be treated as confidential and kept in separate medical files. However, records of specific examinations, if required by law or regulation, will be made available to the employee, persons designated and authorized by the employee, public agencies, relevant insurance companies or the employee's doctor.

Use of Prescription Drugs at Work: Employees who need to use prescription or nonprescription legal drugs while at work must report this requirement to their supervisor if the use might impair their ability to perform the job safely. Depending on the circumstances, employees may be

reassigned, prohibited from performing certain tasks or prohibited from working if they are determined to be unable to perform their jobs safely while taking prescription or nonprescription legal drugs.

CHARACTER REFERENCE CHECKS

La'au Pono is committed to a building a quality team if employees, skilled and cable of the position which they are hired for. To ensure that individuals who join our team maintain a safe and productive work environment, we maintain the right to perform pre-employment character reference on all applicants who accept employment opportunities from La'au Pono, which may also include criminal record check. Please note that criminal convictions do not automatically bar an applicant from employment. Background checks for La'au Pono are subject to include verification of any information on the applicant's resume or application form.

Should there be information obtained from these reference check that will lead to denial of employment by La'au Pono, the applicant will be provided a copy of the report and subsequently have the opportunity to dispute the report's accuracy.

CONFLICT OF INTEREST

Employees of La'au Pono must avoid any relationships or activity that could impair, outwardly or internally, their ability to act objectively in their position. Employees should not find themselves in any situation in which their exterior responsibilities affect any aspect of their work within La'au Pono. In addition, employees should not utilize company property, information, or business opportunities in any instance for personal gain.

Conflicts of interest in La'au Pono may arise in the a diverse situations, therefore we insist that our employees be mindful and aware under all circumstances. Such circumstances include but are not limited to hiring and supervising family members; accepting gifts, favors, and /or discounts; being employed by and/or acting as a consultant to a competitor, serving on the board of a competitor's company. Should an employee at La'au Pono find themselves an a situation that may involve any conflicts of this nature, employees must notify their supervisor or the Director of Human Resources so as to preemptively mitigate any potential conflict.

OUTSIDE EMPLOYMENT

Employees of La'au Pono are permitted to engage in outside work or to hold other jobs, subject to certain restrictions as outlined below.

Activities and conduct away from the job must not compete with, conflict with or compromise La'au Pono interests or adversely affect job performance and the ability to fulfill all job responsibilities. Employees are prohibited from performing any services for customers on nonworking time that are normally performed by La'au Pono. This prohibition also extends to the unauthorized use of any company tools or equipment and the unauthorized use or application of any confidential information. In addition, employees are not to solicit or conduct any outside business during paid working time.

Employees are cautioned to carefully consider the demands that additional work activity will create before accepting outside employment. Outside employment will not be considered an excuse for poor job performance, absenteeism, tardiness, leaving early, refusal to travel or refusal to work overtime or different hours. If La'au Pono determines that an employee's outside work interferes with performance, the employee may be asked to terminate the outside employment.

Employees who have accepted outside employment may not use paid sick leave to work on the outside job. Fraudulent use of sick leave will result in disciplinary action up to and including termination.

EMPLOYEE SUGGESTIONS

As employees of La'au Pono, you have the opportunity to contribute to our future success and growth by submitting suggestions for practical work-improvement or cost-savings ideas.

All regular employees are eligible to participate in the suggestion program.

A suggestion is an idea that will benefit La'au Pono by solving a problem, reducing costs, improving operations or procedures, enhancing customer service, eliminating waste or spoilage, or making La'au Pono a better or safer place to work. Statements of problems without accompanying solutions, or recommendations concerning co-workers and management are not appropriate suggestions.

EMPLOYEE COMPLAINTS

La'au Pono strives to openly communicate with all employees. Any concerns employees have should be promptly reported to management so that a solution may be devised

Examples of some complaints employees may have:

- Suggestions for improvement
- Concerns about working conditions
- Issues with co-workers

- Concerns about treatment at work

When a complaint is voiced, management will do its best to remedy the situation. While every employee may not be satisfied with every solution, employee's input is valued and La'au Pono wants to foster an environment where all employees feel comfortable reporting their concerns.

Please contact your supervisor or Human Resources with all complaints.

EMPLOYEE ORIENTATION

For all employees hired by La'au Pono, the first 90 days of employment are considered to be an orientation period. During this time, the employee will undergo training and orientation as directed by the employee's supervisor. The employee's supervisor will also monitor the employee's performance during this time period.

During the first 90 days of employment, the employee is encouraged and expected to ask questions concerning his or her job responsibilities, and to determine if he or she is satisfied with the position. If the employee's job performance is found to be unsatisfactory by his or her supervisor at any time during the first 90 days of employment, the employment will be terminated.

All new employees will receive a confidential performance evaluation from their supervisor at the end of the orientation period. At that time, the employee will be eligible for employee benefits.

TRAINING AND PROFESSIONAL DEVELOPMENT

La'au Pono is dedicated to provide continual opportunities for education and training and professional development in all relevant fields of study fields of study for all employees. In doing so, La'au Pono will not only provide a thorough training for new hires with all the information and skills necessary to be successful in their position.

Employee training and development is essential in responding to the rapid business changes that occur due to continual economic fluctuations, global economy, enhanced technology, and cultural and demographic factors. La'au Pono strongly encourages the training and development of employees to aid them in improving their ability to succeed. La'au Pono employees receive job-specific training regularly.

La'au Pono sees the benefit in continuing training and staying current on relevant information to give our employees and therefore our customer base the best possible services to the best of our ability.

EMPLOYMENT OF RELATIVES

La'au Pono wants to ensure that corporate practices do not create situations such as conflict of interest or favoritism. This extends to practices that involve employee hiring, promotion and transfer. Close relatives, partners, those in a dating relationship or members of the same household are not permitted to be in positions that have a reporting responsibility to each other. Close relatives are defined as husband, wife, domestic partner, father, mother, father-in-law, mother-in law, grandfather, grandmother, son, son-in-law, daughter, daughter-in law, uncle, aunt, nephew, niece, brother, sister, brother-in-law, sister-in-law, step relatives, cousins and domestic partner relatives.

If employees begin a dating relationship or become relatives, partners or members of the same household and if one party is in a supervisory position, that person is required to inform management and Human Resources of the relationship.

La'au Pono reserves the right to apply this policy to situations where there is a conflict or the potential for conflict because of the relationship between employees, even if there is no direct-reporting relationship or authority involved.

EMPLOYMENT OF MINORS

La'au Pono only hires individuals who are legally authorized to work as provided by federal, state and county laws. In accordance with Hawaii state law, La'au will only employ individuals 21 years of age and above.

IMMIGRATION LAW COMPLIANCE

The United States immigration laws require that individuals complete an employment verification procedure before they are permitted to work. Any individual who has not completed the specified form (Form I-9) and provided the appropriate verification will not be permitted to work and will not be paid until the procedure is completed.

WHISTLEBLOWER POLICY

La'au Pono prides ourselves on our high standards of conduct and ethics and place the utmost importance on maintaining those standards. The Whistle Blower Policy is designed to encourage all employees to report any dishonest or fraudulent behaviors (i.e. to act as a "whistleblower")

that contradict the act of upholding these values with integrity and ethical foresight, regardless of their position. Process of filing a complaint may include but not limited to:

- Reporting a good faith complaint regarding suspected employee in violation of the law or involved in fraudulent behavior;
- Making a good faith complaint regarding accounting, internal accounting controls, or auditing matters that may lead to incorrect, or misrepresentations in, financial accounting;
- Providing information to assist in an investigation regarding violations of the law; or
- Files, testifies, or participates in a proceeding in relation to alleged violations of the law.

Reports should include any information to substantiate concerns, as well as adequate information to allow an appropriate investigation. La'au Pono encourages all reports, including anonymous reports, however if these anonymous reports do not have sufficient information supervisors and/ or Human Resources will not be able to follow through with an investigation.

La'au Pono does not tolerate any retaliation against "whistleblowers," and will therefore do our best to protect such individuals against all counteractions. Whistleblower concerns will be handled with confidentiality, discretion and care to the extent allowed by circumstances and the law.

EMPLOYEE BENEFITS

PERFORMANCE AND SALARY REVIEW

Performance appraisals are conducted on an annual cycle. Employees will receive a performance review on the established date each year. The performance appraisal will be discussed, and both the employee and manager will sign the form to ensure that all strengths, areas for improvement and job goals for the next review period have been clearly communicated. Performance evaluation forms will be retained in the employee's personnel file.

Merit increases are based on company performance and financials and are not guaranteed. A performance review does not always result in an automatic salary increase. The employee's overall performance and salary level relative to his/her position responsibilities are evaluated to determine if a salary increase would be warranted.

Budget allocations for merit increases are planned for and allocated before the start of each calendar year. The annual salary increase program is designed to assist management in planning and allocating merit and promotional increases that reward individual performance, that are market competitive and that are internally equitable.

Salary adjustments are occasionally requested or warranted at times other than the employee's scheduled annual salary reviews. Out-of-cycle salary increases must be pre-approved by the

department manager, Human Resources and La'au Pono president. Human Resources will review all salary increase/adjustment requests to ensure internal equity and compliance with company policies and guidelines.

HOLIDAYS

La'au Pono recognizes nine paid holidays each year:

- New Year's Day
- Martin Luther King Jr. Day
- Presidents Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Day After Thanksgiving
- Christmas Day

Should a holiday fall on a weekend, the holiday will be observed on the work day closest to the holiday.

Time off may be granted to employees who desire to observe a religious holiday that is not recognized by La'au Pono.

VACATION

All full- and part-time La'au Pono employees are eligible for vacation leave benefits. Part-time employees working 20 to 29 hours per week will earn vacation on a prorated basis. Full-time employees are those working 30-plus hours per week. Vacation accrual begins on the first day of full- or part-time employment. Vacation is accrued according to the schedule in this policy. Vacation can be used only after it is earned. Vacation leave will not be earned during an unpaid leave of absence.

To schedule vacation time, La'au Pono employees should submit a completed leave form to the supervisor at least two weeks before the requested leave. Employees must ensure that they have enough accrued leave available to cover the dates requested. Requests will be approved based on a number of factors, including department operating and staffing requirements. The supervisor should return the leave request to the employee within three business days of the date it is submitted indicating that the request has been approved or denied. If the request for vacation leave is denied, the supervisor should provide an appropriate reason on the form returned to the employee.

Vacation will be paid at the employee's base rate at the time the leave is taken. Vacation pay is not included in overtime calculation and does not include any special forms of compensation such as incentives, commissions, bonuses or shift differentials. If a holiday falls during the employee's vacation, the day will be charged to holiday pay rather than to vacation pay.

Leave taken beyond an employee's available vacation balance may be unpaid unless otherwise required under state or federal law.

If employment is terminated, accrued unused vacation leave earned through the last day of active employment will be paid at the employee's base rate of pay at termination. In the event of the employee's death, earned unused vacation time will be paid to the employee's estate or designated beneficiary.

SICK PAY

All full-time, regular employees at La'au Pono accrue sick leave from the date of hire, for a total of 10 days per year. Part-time, regular employees accrue sick leave from the date of hire, in a prorated amount using the full-time total of 10 days per year and the average number of hours the part-time employee works per week.

Sick leave may be used for an employee's personal illness, well-care, and medical and dental appointments. Sick leave may also be used for illness and well-care in an employee's immediate family.

Sick leave may be accrued to a maximum of 120 hours. Sick leave may not be used before accrual. If sick leave is exhausted, any available vacation hours will be used in its place. An employee who has a sick leave absence in excess of three consecutive working days must present medical documentation for the absence. Employees are not paid for unused sick leave upon termination of employment.

JURY DUTY

Upon receipt of notification from the state or federal courts of an obligation to serve on a jury, employees of La'au Pono must notify their supervisor and provide him/her with a copy of the jury summons. La'au Pono will pay regular full-time and regular part-time employees for time off for jury duty up to one week of pay.

VOTING TIME

All employees should be able to vote either before or after regularly assigned work hours. However, when this is not possible due to work schedules, employees will receive up to three hours during the work day to vote. Time off for voting should be reported and coded appropriately on timekeeping records.

La'au Pono Employees who are chosen to serve as election officials at polling sites will be permitted to take required time off to serve in this capacity. It is incumbent on employees who are chosen to act as election officials to notify their manager a minimum of seven days in advance of their need for time off in order to accommodate the necessary rescheduling of work periods. Time engaged as an election official should be reported and coded appropriately on timekeeping records.

MILITARY LEAVE

La'au Pono is committed to protecting the job rights of employees absent on military leave. In accordance with federal and state law, it is La'au Pono's policy that no employee or prospective employee will be subjected to any form of discrimination on the basis of that person's membership in or obligation to perform service for any of the Uniformed Services of the United States. Specifically, no person will be denied employment, reemployment, promotion or other benefit of employment on the basis of such membership. Furthermore, no person will be subjected to retaliation or adverse employment action because such person has exercised his or her rights under applicable law or company policy. If any employee believes that he or she has been subjected to discrimination in violation of La'au Pono policy, the employee should immediately contact Human Resources.

Employees taking part in a variety of military duties are eligible for benefits under this policy. Such military duties include leaves of absence taken by members of the uniformed services, including Reservists and National Guard members, for training, periods of active military service and funeral honors duty, as well as time spent being examined to determine fitness to perform such service. Subject to certain exceptions under the applicable laws, these benefits are generally limited to five years of leave of absence.

Employees requesting leave for military duty should contact Human Resources to request leave as soon as they are aware of the need for leave. For request forms and detailed information on eligibility, employee rights while on leave and job restoration upon completion of leave, contact Human Resources for all company policies, procedures and forms.

BEREAVEMENT LEAVE

A La'au Pono employee who wishes to take time off due to the death of an immediate family member should notify his or her supervisor immediately.

Bereavement leave will be granted unless there are unusual business needs or staffing requirements.

Paid bereavement leave is granted according to the following schedule:

- Employees are allowed five days of paid leave in the event of the death of the employee's spouse, child, father, father-in-law, mother, mother-in-law, brother, sister, stepfather, stepmother, stepbrother, stepsister, stepson or stepdaughter.

- Employees are allowed three days of paid leave in the event of death of the employee's brother-in-law, sister-in-law, son-in-law, daughter-in-law, aunt, uncle, grandparent, grandchild or spouse's grandparent.
- Employees are allowed up to four hours of bereavement leave to attend the funeral of an employee or retiree of La'au Pono.

HEALTH INSURANCE

La'au Pono employees will receive health insurance through Anthem Blue Cross. This will be available to any full-time employee who has worked thirty (30) or more hours per week or averaged thirty (30) or more hours per week for the reporting period La'au Pono will also make contributions to the Fund on behalf of any regular part-time employee working less than thirty (30) hours per week. La'au Pono will pay 100% of the contributions for full-time and part-time participants subsequent to the initial probation period.

WORKERS' COMPENSATION

La'au Pono will provide workers' compensation, a type of accident and injury insurance, that compensates an employee for lost time, medical expenses and loss of life or dismemberment from an injury arising out of or in the course of work. Employees must report any work-related injury or disease immediately (or as soon as practicable) to their supervisor and Human Resources so that the necessary paperwork can be completed in a timely manner. Please note that under state laws, employees who fail to report work-related injuries in a timely manner may see a reduction or denial of their workers' compensation benefits.

Employees returning to work from an injury or illness for which they were receiving workers' compensation must provide proof of rehabilitation or treatment from a licensed physician and

verification that they are able to complete all job-related tasks. In the event that the employee returns to work under strict medical restrictions, La'au Pono will make every reasonable effort to accommodate the employee's work ability and job responsibilities. Once a physician removes work restrictions, the employee is expected to perform his or her regular duties and will no longer receive workers' compensation benefits.

TIME KEEPING AND PAYROLL

TIME KEEPING

A work hour is any hour of the day that is worked and should be recorded to the nearest tenth of an hour. The workday is defined as the 24-hour period starting at 12:00 a.m. and ending at 11:59 p.m. The workweek covers seven consecutive days beginning on Sunday and ending on Saturday. The usual workweek period is 40 hours.

Overtime is defined as hours worked by an hourly or nonexempt employee in excess of 40 hours in a workweek and should be recorded to the nearest tenth of an hour. Overtime must be approved in advance by the manager to whom the employee reports.

Employees will submit their time record weekly as directed by their manager. Each employee is to maintain an accurate daily record of his or her hours worked. All absences from work schedules should be appropriately recorded.

PAY DAYS

All employees are paid biweekly every Friday. Each paycheck will include earnings for all work performed through the end of the previous payroll period.

In the event that a regularly scheduled payday falls on a day off such as a weekend or holiday, employees will receive pay on the last day of work before the regularly scheduled payday.

If the normal payday falls on a company-recognized holiday, paychecks will be distributed one workday before the aforementioned schedule.

Employees may be paid by check or through direct deposit of funds to either a savings or checking account at the financial institution of their choice.

In the event of a lost paycheck, the Human Resource department must be notified in writing as soon as possible and before a replacement check can be issued. In the event the lost paycheck is recovered and La'au Pono identifies the endorsement as that of the employee, the employee must remit the amount of the replacement check to La'au Pono within 24 hours of the time it is demanded.

If an employee's marital status changes or the number of exemptions previously claimed increases or decreases, a new Form W-4 must be submitted to the Human Resource department.

Except for extreme emergencies and vacation pay, no salary advances will be made.

OVERTIME

Nonexempt employees who exceed 40 hours of work time in a workweek will be paid time and one half. Paid leave, such as holiday, sick or vacation pay, does not apply toward work time. The workweek begins at 12:00 a.m. on Sunday morning and ends at 11:59 p.m. on Saturday night. Supervisors are required to obtain approval from managers prior to the use of overtime.

Employees who anticipate the need for overtime to complete the week's work must notify the supervisor in advance and obtain approval before working hours that extend beyond their normal schedule. During busy periods employees may be required to work extended hours.

ON CALL PAY (NON-EXEMPT EMPLOYEES)

An on-call employee who is called back to work outside his or her normal work schedule shall be paid for the time worked or a minimum of two (2) hours, whichever is greater.

Time worked while on call will be calculated at the employee's regular rate of pay. If an employee is called back to work, he or she will be paid for travel time. If an on-call employee is not called back, no pay will be earned. Overtime compensation is applicable only when total hours worked exceed 40 hours in a workweek.

EMPLOYEE TRAVEL TIME AND REIMBURSEMENTS

Employees will be reimbursed for reasonable expenses incurred in connection with approved travel on behalf of La'au Pono.

Travelers seeking reimbursement should incur the lowest reasonable travel expenses and exercise care to avoid the appearance of impropriety. If a circumstance arises that is not specifically covered in the travel policies, the most conservative course of action should be adopted.

Travel for staff must be authorized in advance. Travelers should verify that planned travel is eligible for reimbursement before making travel arrangements. Upon completion of the trip, and within 30 days, the traveler must submit a Travel Reimbursement Form and supporting documentation to obtain reimbursement of expenses.

Exempt employees will be paid their regular salary for weeks in which they travel. Nonexempt employees will be paid for travel time in accordance with federal and state wage payment laws.

GARNISHMENTS

La'au Pono honors federal and state required withholdings from your paycheck upon court order or for the purpose of child support, or repayment of unpaid student loans or federal, state, local municipality or school taxes.

Upon Company receipt of a notice of wage demand, the employee will be immediately notified of the name of the creditor, the amount claimed and whether the demand is based on a wage deduction or a wage assignment. All garnishments will abide by applicable withholding limits as prescribed by law.

La'au Pono does not discriminate or take any adverse action against an employee whose wages are subject to garnishment.

PAY CORRECTIONS

La'au Pono works diligently to ensure that all employees receive paychecks on time, with the correct wages.

In the unlikely event that there is an error in the amount of pay, the employee should promptly bring the discrepancy to the attention of the Payroll Director so that corrections can be made as quickly as possible.

DEMOTIONS

Occasions may arise in La'au Pono when a demotion, or a downgrade of responsibilities and/or wages. Demotions may be proposed for a number of different reasons, including poor employee performance, disciplinary actions, position elimination or organizational restructuring, and at times an employee-desired reduction in responsibility. Demoting is the best interest of La'au Pono and the employee in question as an alternative to laying off or termination of employment.

Each circumstance will be carefully considered prior to determining that a demotion is the appropriate action. Subsequently the employee in question will discuss the available role and responsibilities differing from previous contracts.

EMPLOYMENT STATUS AND RECORD KEEPING

EMPLOYMENT CLASSIFICATION

All employees are designated as either nonexempt or exempt under state and federal wage and hour laws. The following is intended to help employees understand employment classifications and employees' employment status and benefit eligibility. These classifications do not guarantee employment for any specified period of time. The right to terminate the employment-at-will relationship at any time is retained by both the employee and La'au Pono.

Nonexempt employees are employees whose work is covered by the Fair Labor Standards Act (FLSA). They are NOT exempt from the law's requirements concerning minimum wage and overtime.

Exempt employees are generally managers or professional, administrative or technical staff who ARE exempt from the minimum wage and overtime provisions of the FLSA. Exempt employees hold jobs that meet the standards and criteria established under the FLSA by the U.S. Department of Labor.

La'au Pono has established the following categories for both nonexempt and exempt employees:

- *Regular, full time*: Employees who are not in a temporary status and who are regularly scheduled to work the company's full-time schedule of 37.5 hours per week. Generally, these employees are eligible for the full benefits package, subject to the terms, conditions and limitations of each benefits program.

- *Regular, part time*: Employees who are not in a temporary status and who are regularly scheduled to work less than the full-time schedule but at least 20 hours each week. Regular, part-time employees are eligible for some of the benefits offered by La'au Pono subject to the terms, conditions and limitations of each benefits program.

- *Temporary, full time*: Employees who are hired as interim replacements to temporarily supplement the workforce or to assist in the completion of a specific project and who are temporarily scheduled to work La'au Pono's full-time schedule for a limited duration. Employment beyond any initially stated period does not in any way imply a change in employment status.

- *Temporary, part time*: Employees who are hired as interim replacements to temporarily supplement the workforce or to assist in the completion of a specific project and who are temporarily scheduled to work less than La'au Pono's full-time schedule for a limited duration. Employment beyond any initially stated period does not in any way imply a change in employment status.

Temporary workers are not eligible for company benefits unless specifically stated otherwise in company policy or are deemed eligible according to plan documents.

WORK SCHEDULES:

Work schedules be determined once officially hired into La'au Pono team. While we aim to have consistently regular schedule for all of our team members La'au Pono understands that adjustments are inevitable. Schedules will be available on a weekly basis.

Should you have any questions regarding scheduling please address any concerns with your supervisor. While there is no guarantee that these requests will be honored, please inform your supervisor of any changes that you may need in advance so that other scheduling can be arranged.

PERSONNEL FILES

La'au Pono strives to keep accurate and up-to-date personnel records. Employee personnel files may include the following:

- Employee demographic information
- Job application
- Position description
- Resume
- Training records
- Salary history
- Disciplinary action records
- Performance reviews
- Coaching and mentoring records

To ensure the accuracy of your personnel records, please notify us immediately of the following changes:

- Name
- Address
- Telephone number
- Marital status
- Dependent status
- Tax status

Personnel records are confidential and are not available to anyone outside of La'au Pono, unless you have personally authorized their release. A release may not be required when reporting certain

information as required by law or when an authorized governmental agency inspects certain records. To obtain access to your records, contact Human Resources.

SALARY ADMINISTRATION

The salary administration program at La'au Pono was created to achieve consistent pay practices, comply with federal and state laws, mirror our commitment to Equal Employment Opportunity, and offer competitive salaries within our labor market. Because recruiting and retaining talented employees is critical to our success, La'au Pono is committed to paying its employees equitable wages that reflect the requirements and responsibilities of their positions and are comparable to the pay received by similarly situated employees in other organizations in the area.

Compensation for every position is determined by several factors, including the essential duties and responsibilities of the job, and salary survey data on pay practices of other employers. La'au Pono periodically reviews its salary administration program and restructures it as necessary. Merit-based pay adjustments may be awarded in conjunction with superior employee performance documented by the performance evaluation process.

Employees should bring their pay-related questions or concerns to the attention of their immediate supervisors, who are responsible for the fair administration of departmental pay practices. The Director of Human Resources is also available to answer specific questions about the salary administration program.

INTRODUCTORY PERIOD

The introductory period is intended to give new employees the opportunity to demonstrate their ability to achieve a satisfactory level of performance and to determine whether the new position meets their expectations. La'au Pono uses this period to evaluate employee capabilities, work habits, and overall performance. Either the employee or La'au Pono may end the employment relationship at will at any time during or after the introductory period, with or without cause or advance notice.

All new and rehired employees work on an introductory basis for the first 90 calendar days after their date of hire. Employees who are promoted or transferred within La'au Pono must complete a secondary introductory period of the same length with each reassignment to a new position. Any significant absence will automatically extend an introductory period by the length of the absence. If La'au Pono determines that the designated introductory period does not allow

sufficient time to thoroughly evaluate the employee's performance, the introductory period may be extended for a specified period.

In cases of promotions or transfers within La'au Pono, an employee who, in the sole judgment of management, is not successful in the new position can be removed from that position at any time during the secondary introductory period. If this occurs, the employee may be allowed to return to his or her former job or to a comparable job for which the employee is qualified, depending on the availability of such positions and La'au Pono's needs.

Upon satisfactory completion of the initial introductory period, employees enter the "regular" employment classification.

During the initial introductory period, new employees are eligible for those benefits that are required by law, such as workers' compensation insurance and Social Security. After becoming regular employees, they may also be eligible for other La'au Pono-provided benefits, subject to the terms and conditions of each benefits program. Employees should read the information for each specific benefits program for the details on eligibility requirements.

Benefits eligibility and employment status are not changed during the secondary introductory period that results from a promotion or transfer within La'au Pono.

HIPAA

To improve the efficiency and effectiveness of the health care system, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Public Law 104-191, included Administrative Simplification provisions that required HHS to adopt national standards for electronic health care transactions and code sets, unique health identifiers, and security. At the same time, Congress recognized that advances in electronic technology could erode the privacy of health information. Consequently, Congress incorporated into HIPAA provisions that mandated the adoption of Federal privacy protections for individually identifiable health information.

HHS published a final **Privacy Rule** in December 2000, which was later modified in August 2002. This Rule set national standards for the protection of individually identifiable health information by three types of covered entities: health plans, health care clearinghouses, and health care providers who conduct the standard health care transactions electronically. Compliance with the Privacy Rule was required as of April 14, 2003 (April 14, 2004, for small health plans).

HHS published a final **Security Rule** in February 2003. This Rule sets national standards for protecting the confidentiality, integrity, and availability of electronic protected health information. Compliance with the Security Rule was required as of April 20, 2005 (April 20, 2006 for small health plans).

The **Enforcement Rule** provides standards for the enforcement of all the Administrative Simplification Rules.

HHS enacted a final Omnibus rule that implements a number of provisions of the HITECH Act to strengthen the privacy and security protections for health information established under HIPAA, finalizing the Breach Notification Rule.

View the Combined Regulation Text (as of March 2013). This is an unofficial version that presents all the HIPAA regulatory standards in one document. The official version of all federal regulations is published in the Code of Federal Regulations (CFR). View the official versions at 45 C.F.R. Part 160, Part 162, and Part 164.

Your Privacy Rights:

At La'au Pono, you have the following rights:

- The right to authorize disclosure of your protected health information to third parties;
- The right to revoke previously authorized disclosures;
- The right to request limited disclosure of your health information;
- The right to inspect and copy your protected health information;
- The right to amend information;
- The right to request a listing of personnel who have accessed your information; and
- The right to request to be placed on a mailing list to receive notice of updates to

If you have any questions regarding this material you, please do not hesitate to consult your supervisor and/or the director of HR.

***The Administrative Simplification provisions of the Health Insurance Portability and Accountability Act of 1996 (HIPAA, Title II) require the Department of Health and Human Services (HHS) to adopt national standards for electronic health care transactions and national identifiers for providers, health plans, and employers. To date, the implementation of HIPAA standards has increased the use of electronic data interchange. Provisions under the Affordable Care Act of 2010 will further these increases and include requirements to adopt:

- operating rules for each of the HIPAA covered transactions
- a unique, standard Health Plan Identifier (HPID)
- a standard and operating rules for electronic funds transfer (EFT) and electronic remittance advice (RA) and claims attachments.

In addition, health plans will be required to certify their compliance. The Act provides for substantial penalties for failures to certify or comply with the new standards and operating rules.

For more information regarding HIPAA including additional provisions under the Patient Protections and Affordable Care Act (Affordable Care Act or ACA) of 2010, go to the "Related Links Outside CMS".

EMPLOYEE DATA PROTECTION

In connection with your employment, La'au Pono may ask you to provide certain information, including, but not limited to, your name, mailing address, telephone numbers, citizenship, country of residence, country of origin, gender, birth date, marital status, name of dependents, birth date of dependents, occupation of dependents and national identification number. Additionally we may maintain information relating to your employment with La'au Pono including, but not limited to, your employee identification number, business unit/division of employment, department, physical work location, job code, compensation rate, supervisor, work shift, hire and termination date, appraisal dates and ratings, training, skills, educational background, language proficiency, certifications and licenses.

The information collected by La'au Pono will be used for various administrative and record keeping purposes by La'au Pono.

Disclosure of Employee Information

Employee Information will be disclosed to a limited number of La'au Pono employees whose job necessitates that they maintain, compile, or otherwise have access to Employee Information; these employees are authorized by La'au Pono and have specific employee data responsibilities. La'au Pono may also disclose Employee Information to a third party when it believes that such disclosure is reasonably necessary to comply with any law or to protect the rights, property or safety of another person. Additionally, La'au Pono may disclose Employee Information to a third party employee benefit provider, including but not limited to, employee benefit providers and payroll services. If La'au Pono does disclose information to third party, we will ensure that the third party either subscribes to the privacy principles or is subject to adhere to a written agreement with such third party which requires the third party to provide at least the same level of privacy protection as is required by the relevant Principles. Lastly, La'au Pono may transfer or otherwise disclose Employee Information in connection with the sale of its business to a third party.

Employee Consent:

Unless you withdraw your consent, in writing, you agree to and accept the proposed use, disclosure and transmission of your Employee Information by La'au Pono as set forth in this Policy. Upon any modification of this Policy, La'au Pono will prominently post a revised Policy within five (5) business days of its adoption and provide employees with an opportunity to withdraw his or her consent to any new use or disclosure of his or her Employee Information. If

any employee objects to La'au Pono's collection of information, use, disclosure or transmission of certain Employee Information, La'au Pono will make reasonable efforts to address the concerns of the employee. In no case will an employee be subject to sanction or retaliation for objecting to the collection, use, disclosure or transmission of Employee Information. Any employee who withholds Employee Information or prohibits its collection, use, disclosure or transmission, however, may be disadvantaged as a result of not making the information available. For example, unwillingness to provide information required to use a service or receive a benefit may make an employee ineligible for that service or benefit.

Your Rights Regarding Your Employee Information

Although your Employee Information is the physical property of La'au Pono, the information contained in the record belongs to **you**. Upon request in a reasonable notice period, each employee has the right to:

Obtain a copy of all La'au Pono Protection Policy upon request.

Inspect his or her Employee Information and be able to correct or amend information where it is inaccurate, except where the burden or expense of providing access would be disproportionate to the risks to the individual's privacy in the case in question, or where the rights of persons other than the individual would be violated. All requests to inspect, correct, amend, or delete information must be submitted in writing to La'au Pono's Director of Human Resources.

- Review La'au Pono's process and procedures for electronically transmitting Employee Information, as set forth in Practice for Protection and Transmission of Employee Data as well as the La'au Pono's Policy Statements referred to therein.

- Withdraw his or her consent to the continued or future use and disclosure of his or her Employee Information, except as to that Employee Information that La'au Pono determines to be necessary for continued employment.

- In the event that La'au Pono modifies the terms of this Policy, we will promptly post a revised which describes all intended uses and disclosures of Employee Information, within five (5) business days of its adoption, and provide employees with an opportunity to withdraw his or her consent to any new use or disclosure of his or her Employee Information.

Complaints

If you believe La'au Pono has been breached any of its policies by permitting an unauthorized use, disclosure or transmission of your Employee Information, you may contact or file a complaint with your supervisor. If you are not satisfied with the response or action taken by your supervisor, all such complaints and concerns may then be directed to the Director of Human Resources. You will not be penalized for filing a complaint.

JOB DESCRIPTIONS

La'au Pono does it's very best to create opportunities for its staff to succeed. In doing so, it is incredibly important to communicate exactly what is expected of each of our employees. Therefore, La'au Pono supervisors perform frequent and thorough check in's with employees on progress of projects as well as accuracy of job descriptions. As often as necessary, job descriptions will be modified by supervisors to fit job fulfillment. In addition, La'au Pono employees may be asked to contribute to these modifications in order to draft accurate expectations.

These job descriptions outlined be employer and employee are not bound or absolute. La'au Pono employees may be asked to perform tasks that are not outlined in their job descriptions from time to time, and are expected to comply. Should employees choose not to fulfill these tasks outside of their job descriptions, they may be subject to disciplinary action.

HIRING PROCESS

La'au Pono relies upon the accuracy of information contained in the employment application, as well as the accuracy of other data presented throughout the hiring process and employment. Any misrepresentations, falsifications, or material omissions in any of this information or data may result in the exclusion of the individual from further consideration for employment or, if the person has been hired, termination of employment.

REHIRING

Former employees who left La'au Pono in good standing and were classified as eligible for rehire may be considered for reemployment. An application must be submitted to the Human Resource department, and the applicant must meet all minimum qualifications and requirements of the position, including any qualifying exam, when required.

Supervisors must obtain approval from the Human Resource director or designee prior to rehiring a former employee. Rehired employees begin benefits just as any other new employee. Previous tenure will not be considered in calculating longevity, leave accruals or any other benefits.

An applicant or employee who is terminated for violating policy or who resigned in lieu of termination from employment due to a policy violation will be ineligible for rehire.

INTERNAL TRANSFER AND PROMOTIONS:

Employees with more than twelve months of service at La'au Pono may request consideration to transfer to other jobs as vacancies become available and will be considered along with other applicants. At the same time, La'au Pono may initiate transfers of employees between departments and facilities to meet specified work requirements and reassignment of work requirements. La'au Pono offers employees promotions to higher-level positions when appropriate. Management prefers to promote from within and may first consider current employees with the necessary qualifications and skills to fill vacancies above the entry level, unless outside recruitment is considered to be in La'au Pono's best interest.

To be considered, employees must have held their current position for at least 12 months, have a satisfactory performance record and have no disciplinary actions during the last 12 months. Management retains the discretion to make exceptions to the policy.

ATTENDANCE AND PUNCTUALITY

It is important for all employees to project a professional image while at work by being appropriately attired. La'au Pono employees are expected to be neat, clean and well groomed while on the job. Clothing must be consistent with the standards for a business environment and must be appropriate to the type of work being performed.

All employees must be covered from shoulders to knees at all times (no see-through or sleeveless clothing is permitted at any time). Natural and artificial scents may become a distraction from a well-functioning workplace and are also subject to this policy.

La'au Pono is confident that employees will use their best judgment regarding attire and appearance. Management reserves the right to determine appropriateness. Any employee who is improperly dressed will be counseled or in severe cases may be sent home to change clothes. Continued disregard of this policy may be cause for disciplinary action, which may result in termination.

SEPARATION OF EMPLOYMENT

Separation of employment within an organization can occur for several different reasons.

Resignation: Although we hope your employment with us will be a mutually rewarding experience, we understand that varying circumstances cause employees to voluntarily resign employment. Resigning employees are encouraged to provide two weeks' notice, preferably in

writing, to facilitate a smooth transition out of the organization. Management reserves the right to provide an employee with two weeks' pay in lieu of notice in situations where job or business needs warrant such action. If an employee provides less notice than requested, the employer may deem the individual to be ineligible for rehire depending on the circumstances regarding the notice given.

Retirement: Employees who wish to retire are required to notify their department director and the Human Resource department in writing at least one (1) month before the planned retirement date.

It is the practice of La'au Pono to give special recognition to employees at the time of their retirement. The recipient must be employed with La'au Pono for five (5) years to be eligible for a retirement gift. The amount provided for the gift is $100 per year, based on the employee's uninterrupted full-time service. The department director should contact the Human Resource department to purchase a gift or a gift card. Departmental funds may not be used to augment the gift.

Job abandonment: Employees who fail to report to work or contact their supervisor for three (3) consecutive workdays shall be considered to have abandoned the job without notice, effective at the end of their normal shift on the third day. The supervisor shall notify the Human Resource department at the expiration of the third workday and initiate the paperwork to terminate the employee. Employees who are separated due to job abandonment are ineligible to receive accrued benefits and are ineligible for rehire.

Termination: Employees of La'au Pono are employed on an at-will basis, and the company retains the right to terminate an employee at any time.

Return of Company Property

The separating employee must return all company property at the time of separation, including uniforms, cell phones, keys, PCs and identification cards. Failure to return some items may result in deductions from the final paycheck. An employee will be required to sign the Wage Deduction Authorization Agreement to deduct the costs of such items from the final paycheck.

Exit Interviews

The separating employee shall contact the Human Resource department as soon as notice is given to schedule an exit interview. The interview will be on the employee's last day of work or another day, as mutually agreed on.

Accrued vacation leave will be paid in the last paycheck unless the employee resigned and did not give and work a full two weeks' notice.

WORKING CONDITIONS AND HOURS

SAFETY

It is the responsibility of each employee to conduct all tasks in a safe and efficient manner complying with all local, state and federal safety and health regulations and program standards, and with any special safety concerns for use in a particular area or with a client.

Although most safety regulations are consistent throughout each department and program, each employee has the responsibility to identify and familiarize her/himself with the emergency plan for his/her working area. Each facility shall have posted an emergency plan detailing procedures in handling emergencies such as fire, weather-related events and medical crises.

It is the responsibility of the employee to complete an Accident and Incident Report for each safety and health infraction that occurs by an employee or that the employee witnesses. Failure to report such an infraction may result in employee disciplinary action, including termination.

Furthermore, management requires that every person in the organization assumes the responsibility of individual and organizational safety. Failure to follow company safety and health guidelines or engaging in conduct that places the employee, client or company property at risk can lead to employee disciplinary action and/or termination.

The Health and Safety Committee and the safety director shall have the responsibility to develop and the authority to implement the safety and health program in the interest of a safer work environment.

SECURITY

It is La'au Pono's policy to provide a workplace that is safe and free from all threatening and intimidating conduct. Therefore, La'au Pono will not tolerate violence or threats of violence of any form in the workplace, at work-related functions or outside of work if it affects the workplace. This policy applies to La'au Pono employees, clients, customers, guests, vendors and persons doing business with La'au Pono.

It is a violation of this policy for any individual to engage in any conduct, verbal or physical, that intimidates, endangers or creates the perception of intent to harm persons or property. Examples include but are not limited to:

- Physical assaults or threats of physical assault, whether made in person or by other means (i.e., in writing, by phone, fax or email)

- Verbal conduct that is intimidating and has the purpose or effect of threatening the health or safety of a co-worker
- Any other conduct or acts that management believes represent an imminent or potential danger to workplace safety or security

Anyone with questions or complaints about workplace behaviors that fall under this policy may discuss them with a supervisor or a Human Resources representative. La'au Pono will promptly and thoroughly investigate any reported occurrences or threats of violence. Violations of this policy will result in disciplinary action, up to and including immediate termination of employees. Where such actions involve non-employees, La'au Pono will take action appropriate for the circumstances. Where appropriate and/or necessary, La'au Pono will also take whatever legal actions are available and necessary to stop the conduct and protect La'au Pono employees and property.

EMERGENCY PROCEDURES

La'au Pono recognizes that our people drive our business. As our most critical resource, employees are safeguarded through training, provision of appropriate work surroundings, and procedures that foster protection of health and safety. No duty, no matter what its perceived result, is more important than employee health and safety.

General Guidelines in an Emergency

Stay calm and think through your actions. Know important emergency numbers, such as:

- Fire/Police/Ambulance 911
- Human Resources
- Operator

Be aware of your surroundings

- Know where stairwell exits are located
- In the event of an emergency, use only stairs—do not take elevators.
- Do not hesitate to call or alert others if you believe that an emergency is occurring.

Fire Evacuation:

Floor Leaders/Backups:

[redacted]

EMERGENCY CLOSINGS

[redacted]

MEDICAL EMERGENCIES

Medical Emergency:

- Upon discovering a medical emergency, call 911.
- Call the receptionist and page an emergency announcement, if possible.
- Stay with the ill or injured person, being careful not to come into contact with any body fluids unless properly trained and protected.
- Send one person to alert Human Resources so they can notify family members of the ill or injured person.

- Employees in the immediate vicinity of the emergency, but not involved in the emergency effort, should leave the area.

WEAPONS

Unless prohibited by state law, La'au Pono prohibits the possession of firearms or any other lethal weapon on La'au Pono property, in a vehicle being used on Company business, in any company-owned or leased parking facility or at a work-related function. This applies to all employees, visitors and customers on Company property, even those who are licensed to carry weapons. The only exception to this is an employee who is required to possess weapons in order to fulfill his or her job duties.

Some examples of prohibited weapons include but are not limited to:

- Firearms (pistols, revolvers, shotguns, rifles and bb guns)
- Knives (switchblades, gravity knives or any knife with a blade longer than three inches)
- Metal knuckles
- Bows and arrows
- Tasers

We prohibit weapons to ensure the safety and security of all employees and persons visiting La'au Pono. Any employee found in violation of this policy will be subject to disciplinary action, up to and including immediate termination. If you have questions or concerns regarding this policy, please contact Human Resources.

ROBBERY POLICY

[redacted]

Actions During a Robbery

[redacted]

[redacted]

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[redacted]

FIRE PREVENTION

The elimination of fire hazards protects, among other things, the personal safety of all employees, College property, and valuable records. Extreme caution must be exercised at all times to avoid causing a fire. To assist in fire prevention, each employee should become familiar with the location and operation of the fire extinguishers that are provided in his/her work areas. Fire hazards should be reported and eliminated at once.

In the case of a fire, employees should immediately:

[redacted]

[redacted]

Questions regarding this policy should be directed to your supervisor.

SECURITY INSPECTIONS

La'au Pono wishes to maintain a work environment that is free of illegal drugs, alcohol, firearms, explosives, or other improper materials. To this end, La'au Pono prohibits the possession, transfer, sale, or use of such materials on its premises. La'au Pono requires the cooperation of all employees in administering this policy.

Desks, lockers, and other storage devices may be provided for the convenience of employees but remain the sole property of La'au Pono. Accordingly, they, as well as any articles found within them, can be inspected by any agent or representative of La'au Pono at any time, either with or without prior notice.

La'au Pono likewise wishes to discourage theft or unauthorized possession of the property of La'au Pono, employees, visitors, and customers. To facilitate enforcement of this policy, employees, or its representative may inspect not only desks and lockers but also persons entering and/or leaving the premises and any packages or other belongings. Any employee who wishes to avoid inspection of any articles or materials should not bring such items onto employees, premises.

HAZARD COMMUNICATION

In accordance with the Occupational Safety and Health (OSH) Act, the Hazard Communication Policy of La'au Pono provides for the right of both employees and employers to know of any potential dangers to health or physicality in the workplace.

Every chemical used at La'au Pono is evaluated with regard to its potential physical and health hazards. All known chemical hazards are revealed to employees through the manufacturer's Material Safety Data Sheet (MSDS), or if the chemical was created on Company premises, through an MSDS created by the individual mixing the chemicals. Chemical inventories as well as all MSDS forms are kept in every department with chemical substances present.

In addition, all containers of hazardous chemicals are labeled to reflect the identity of the chemical, the hazard warning, and the name and address of the chemical manufacturer. Chemicals are stored in spill-proof bottles or containers.

All employees are required to participate in training regarding the Company's Hazard Communication standard. Employees with responsibilities that require the routine use of handling of potentially hazardous chemicals are required to participate in additional training conducted by their supervisor.

Questions regarding this policy should be directed to your supervisor.

HAZARDOUS MATERIALS

All employees are responsible for reporting safety concerns and potential hazards. Each employee is expected to obey safety rules and exercise caution and common sense in all work activities. Employees must immediately report any unsafe conditions to their supervisor. Employees who violate safety standards; cause hazardous or dangerous situations; or fail to report or, where appropriate, remedy such situations may be subject to disciplinary action, up to and including termination of employment.

Employees cleaning up hazardous materials must do so in accordance with operation procedures in cleaning hazardous materials. When cleaning hazardous materials, use the hazardous materials kit.

In the case of an accident that results in injury, regardless of how insignificant the injury may appear, employees must notify their supervisor.

HAZARDOUS WASTE

There are a variety of safety provisions that regulate the management, storage, and disposal of hazardous waste. La'au Pono fully complies with all of these regulations to ensure the safety and health of our employees, clients, and customers.

For the purposes of this policy, "hazardous waste" is defined as any substance no longer in use with chemical and/or biological properties that may harm or endanger employees, material, or the environment if handled improperly.

Employees should ensure that as little hazardous waste is generated as possible. When using hazardous material, use sparingly and carefully in accordance with La'au Pono's chemical use and storage policies.

Employees are not to use plumbing systems to dispose of hazardous waste, regardless of whether or not they are "chemically resistant". Each department containing hazardous chemicals is equipped with appropriate disposal containers, labeled for each type of waste.

Different types of chemicals waste must be segregated in order to avoid unnecessary mixing. Regular trash containers are not to be used to dispose of such waste.

Questions regarding this policy should be directed to your supervisor.

CHEMICAL STORAGE

Chemical toxins pose a substantial risk to employees in the workplace and may cause injuries or fatalities if handled incorrectly. La'au Pono recognizes this and intends to defend the safety of all our workers by requiring employees to follow the guidelines set forth in this policy.

All chemicals must be stored in original labeled containers or bottles and must be placed only in authorized storage areas. Furthermore, all chemicals must be stored by category and apart from one another to prevent unplanned blending.

For further information on storing chemicals, employees should see the Material Data Safety Sheets (MSDS), which are found in authorized storage areas. In the event a leak of unknown origin is discovered in the storage area, the employee should alert their supervisor as soon as possible to determine severity and whether evacuation is necessary.

Employees of La'au Pono are expected to recognize and identify the risk of carelessness in chemical storage and use preventive measures to assure the health and safety of every staff member.

MATERIAL DATA SAFETY SHEET (MSDS)

La'au Pono considers employee health and safety to be of utmost importance. As such, in accordance with our Hazard Communication standard, we ensure that all departments containing hazardous chemicals are equipped with Material Safety Data Sheets (MSDS's). An MSDS is a detailed informational document prepared by the manufacturer or importer of a hazardous chemical describing the physical and chemical properties of the material and its potential hazards.

The MSDS includes the following information:

- The identity of the hazardous components of the chemical;
- The health and physical hazards of the chemical;
- Protective measures and equipment to be used if exposed to the chemical;
- Appropriate method(s) of disposal; and
- Manufacturer's contact information.

Questions regarding this policy should be directed to your supervisor.

DISABILITY ACCOMODATION

La'au Pono is committed to complying fully with the Americans with Disabilities Act (ADA) and ensuring equal opportunity in employment for qualified persons with disabilities. All employment practices and activities are conducted on a non-discriminatory basis.

Hiring procedures have been reviewed and provide persons with disabilities meaningful employment opportunities. Pre-employment inquiries are made only regarding an applicant's ability to perform the duties of the position.

Post-offer medical examinations are required only for those positions in which there is a bona fide job-related physical requirement. They are given to all persons entering the position only after conditional job offers. Medical records will be kept separate and confidential.

Reasonable accommodation is available to all disabled employees, where their disability affects the performance of job functions. All employment decisions are based on the merits of the situation in accordance with defined criteria, not the disability of the individual.

Qualified individuals with disabilities are entitled to equal pay and other forms of compensation (or changes in compensation) as well as in job assignments, classifications, organizational structures, position descriptions, lines of progression, and seniority lists. Leave of all types will be available to all employees on an equal basis.

La'au Pono is also committed to not discriminating against any qualified employees or applicants because they are related to or associated with a person with a disability. La'au Pono will follow any state or local law that provides individuals with disabilities greater protection than the ADA.

This policy is neither exhaustive nor exclusive. La'au Pono is committed to taking all other actions necessary to ensure equal employment opportunity for persons with disabilities in accordance with the ADA and all other applicable federal, state, and local laws.

PERSONAL PROPERTY

It is the policy of La'au Pono to ask employees to refrain from bringing unnecessary or inappropriate personal property to work.

La'au Pono recognizes that employees may need to bring certain personal items to work. However, personal property that is not related to the employee's job performance may disrupt work or pose a safety risk to other employees.

Employees are expected to exercise reasonable care to safeguard personal items brought to work. La'au Pono is not responsible for the loss, damage, or theft of personal belongings, and

employees are advised not to carry unnecessary amounts of cash or other valuables with them when they come to work.

LOST AND FOUND

Any items found within the facility should be delivered to the Manager. The Manager will keep the item until its rightful owner claims it.

In the event an item is not claimed within 10 days, the Manager will make a posting of the missing item on bulletin boards. If the item is not claimed within 30 days, it will first be offered to the finder, and if refused will be discarded.

La'au Pono is not responsible for lost or stolen personal items.

RETURN OF COMPANY PROPERTY

Employees are responsible for items issued to them by La'au Pono or in their possession or control, such as the following:

- Cell phones
- Gate Remotes
- Credit Cards
- Equipment
- Identification badges
- Keys
- Protective Equipment
- Security Passes
- Tools
- Uniforms
- Vehicles
- Written materials

Employees must return all La'au Pono property immediately upon request or upon termination of employment. Where permitted by applicable laws, La'au Pono may withhold from the employee's check or final paycheck the cost of any items that are not returned when required. La'au Pono may also take all action deemed appropriate to recover or protect its property.

SMOKING

In keeping with La'au Pono intent to provide a safe and healthful work environment, smoking is prohibited throughout the workplace.

This policy applies equally to all employees, customers, and visitors.

COMPANY HOURS

Supervisors at La'au Pono will advise employees of their scheduled shift, including starting and ending times. Business needs may necessitate a variation in your starting and ending times as well as in the total hours you may be scheduled to work each day and each week.

MEAL AND REST PERIODS

Each workday, full-time nonexempt employees are provided with 2 rest periods of 10 minutes in length. To the extent possible, rest periods will be provided in the middle of work periods. Since this time is counted and paid as time worked, employees must not be absent from their work stations beyond the allotted rest period time.

All full-time Full time nonexempt employees are provided with one meal period of 30 minutes in length each workday. Supervisors will schedule meal periods to accommodate operating requirements. Employees will be relieved of all active responsibilities and restrictions during meal periods and will not be compensated for that time.

EMPLOYEE CONDUCT

STANDARD OF CONDUCT

The work rules and standards of conduct for La'au Pono are important, and the company regards them seriously. All La'au Pono employees are urged to become familiar with these rules and standards. In addition, employees are expected to follow the rules and standards faithfully in doing their jobs and conducting business on behalf of La'au Pono. Please note that any employee who deviates from these rules and standards will be subject to disciplinary action, up to and including termination of employment.

While not intended to list all the forms of behavior that are considered unacceptable in the workplace, the following are examples of rule infractions or misconduct that may result in disciplinary action.

- Theft or inappropriate removal or possession of property
- Falsification of timekeeping records
- Working under the influence of alcohol or illegal drugs
- Possession, manufacture, distribution, sale, transfer, dispensation or use of alcohol or illegal drugs
- Fighting or threatening violence in the workplace
- Immoral actions or intimidating others
- Boisterous or disruptive activity in the workplace
- Negligence or improper conduct leading to damage of La'au Pono or customer property
- Insubordination or other disrespectful conduct
- Violation of safety or health rules
- Smoking in the workplace
- Sexual or other unlawful or unwelcome harassment or touching
- Excessive absenteeism or any absence without notice
- Unauthorized use of telephones or other La'au Pono equipment
- Using La'au Pono equipment for purposes other than business (e.g., playing games on computers or personal Internet usage)
- Unauthorized disclosure of confidential information
- Violation of personnel policies
- Unsatisfactory performance or conduct

These rules apply to any and all interactions with customers, fellow employees or anyone else associated with the workplace.

DISCIPLINARY ACTION

Disciplinary action at La'au Pono is intended to fairly and impartially correct behavior and performance problems early on and to prevent reoccurrence.

Disciplinary action may involve any of the following: verbal warning, written warning, suspension with or without pay, and termination of employment, depending on the severity of the problem and the frequency of occurrence. La'au Pono reserves the right to administer disciplinary action at its discretion and based upon the circumstances.

La'au Pono recognizes that certain types of employee behavior are serious enough to justify termination of employment, without observing other disciplinary action first.

These violations include but are not limited to:

- Workplace violence;
- Harassment;
- Theft of any kind;
- Vandalism or destruction of company property;

- Presence on company property during non-business hours;
- Use of company equipment and/or company vehicles without prior authorization;
- Divulging La'au Pono business practices or any other confidential information; and
- Violating any state or local law regarding the sale, production, or distribution of medical marijuana.

WORKPLACE ETTIQUETTE

La'au Pono strives to maintain a positive work environment where employees treat each other with respect and courtesy. Sometimes issues arise when employees are unaware that their behavior in the workplace may be disruptive or annoying to others. Many of these day-to-day issues can be addressed by politely talking with a co-worker to bring the perceived problem to his or her attention. In most cases, common sense will dictate an appropriate resolution. La'au Pono encourages all employees to keep an open mind and graciously accept constructive feedback or a request to change behavior that may be affecting another employee's ability to concentrate and be productive.

The following workplace etiquette guidelines are not necessarily intended to be hard and fast work rules with disciplinary consequences. They are simply suggestions for appropriate workplace behavior to help everyone be more conscientious and considerate of co-workers and the work environment. Please contact the Office Manager if you have comments, concerns, or suggestions regarding these workplace etiquette guidelines.

- Avoid public accusations or criticisms of other employees. Address such issues privately with those involved or your supervisor.
- Try to minimize unscheduled interruptions of other employees while they are working.
- Communicate by e-mail or phone whenever possible, instead of walking unexpectedly into someone's office or workspace.
- Keep socializing to a minimum, and try to conduct conversations in areas where the noise will not be distracting to others.
- Refrain from using inappropriate language (swearing) that others may overhear.
- Avoid discussions of your personal life/issues in public conversations that can be easily overheard.
- Clean up after yourself and do not leave behind waste or discarded papers.

EMPLOYEE RELATIONSHIPS IN THE WORKPLACE

The employment of relatives or individuals involved in a dating relationship in the same area of an organization may cause serious conflicts and problems with favoritism and employee morale.

In addition to claims of partiality in treatment at work, personal conflicts from outside the work environment can be carried over into day-to-day working relationships.

For purposes of this policy, a relative is any person who is related by blood or marriage, or whose relationship with the employee is similar to that of persons who are related by blood or marriage. A dating relationship is defined as a relationship that may be reasonably expected to lead to the formation of a consensual "romantic" or sexual relationship. This policy applies to all employees without regard to the gender or sexual orientation of the individuals involved.

Relatives of current employees may not occupy a position that will be working directly for or supervising their relative. Individuals involved in a dating relationship with a current employee may also not occupy a position that will be working directly for or supervising the employee with whom they are involved in a dating relationship. La'au Pono also reserves the right to take prompt action if an actual or potential conflict of interest arises involving relatives or individuals involved in a dating relationship who occupy positions at any level (higher or lower) in the same line of authority that may affect the review of employment decisions.

If a relative relationship or dating relationship is established after employment between employees who are in a reporting situation described above, it is the responsibility and obligation of the supervisor involved in the relationship to disclose the existence of the relationship to management. The individuals concerned will be given the opportunity to decide who is to be transferred to another available position. If that decision is not made within 30 calendar days, management will decide who is to be transferred or, if necessary, terminated from employment.

In other cases where a conflict or the potential for conflict arises because of the relationship between employees, even if there is no line of authority or reporting involved, the employees may be separated by reassignment or terminated from employment. Employees in a close personal relationship should refrain from public workplace displays of affection or excessive personal conversation.

WORKPLACE VIOLENCE

- Any employee who feels that he or she has been threatened should immediately report the incident to their supervisor and Human Resources.
- If you observe anyone exhibiting threatening behavior or making threatening statements, warn others in the area and immediately notify Human Resources—stay away from the person exhibiting the threatening behavior.
- Depending upon the level of concern, 911 may be called immediately.
- Never attempt to confront any person exhibiting threatening behavior.

If you have reason to believe that events in your personal life could result in acts of violence occurring at work, you are strongly urged to confidentially discuss the issue with Human Resources so that a prevention plan can be developed.

VISITORS IN THE WORKPLACE

La'au Pono cares about the safety and security of its employees. In an effort to maintain the maximum safety and security possible at a minimum inconvenience to you, we have guidelines in place regarding facility access and visitors.

All visitors are to be escorted by authorized personnel at all times. Please do not allow visitors to roam the premises unattended.

COMPUTER, EMAIL AND INTERNET USAGE

The following guidelines have been established for using the Internet, company-provided cell phones and e-mail in an appropriate, ethical and professional manner:

- Internet, company-provided equipment (e.g., cell phone, laptops, computers) and services may not be used for transmitting, retrieving or storing any communications of a defamatory, discriminatory, harassing or pornographic nature.
- The following actions are forbidden: using disparaging, abusive, profane or offensive language; creating, viewing or displaying materials that might adversely or negatively reflect upon La'au Pono or be contrary to La'au Pono's best interests; and engaging in any illegal activities, including piracy, cracking, extortion, blackmail, copyright infringement, and unauthorized access of any computers and company-provided equipment such as cell phones and laptops.
- Employees may not copy, retrieve, modify or forward copyrighted materials, except with permission or as a single copy to reference only.
- Employees must not use the system in a way that disrupts its use by others. Employees must not send or receive large files that could be saved/transferred via thumb drives. Employees are prohibited from sending or receiving files that are not related to work.
- Employees should not open suspicious e-mails, pop-ups or downloads. Contact IT with any questions or concerns to reduce the release of viruses or to contain viruses immediately.
- Internal and external e-mails are considered business records and may be subject to discovery in the event of litigation. Be aware of this possibility when sending e-mail within and outside the company.

All company-supplied technology and company-related work records belong to La'au Pono and not to the employee. La'au Pono routinely monitors use of company-supplied technology. Inappropriate or illegal use or communications may be subject to disciplinary action up to and including termination of employment.

TELEPHONE POLICY

La'au Pono telephones are intended for the sole use of conducting company business.

Business phone calls - Much of our business is conducted over the phone, making our telephone techniques extremely important. A friendly but businesslike telephone manner should always be projected. When you are away from your work area, make a habit of forwarding your calls to the appropriate extension.

Personal phone calls - We recognize that periodically, personal phone calls must be made or received during the business hours. Such calls should be held at a minimum so that they do not interfere with the workflow.

Personal cellphone calls - In order to provide an optimum work environment, employees are expected to have cellphones turned off during work hours. Ringing cellphones are a distraction to co-workers and can interfere with productivity. Cellphones should only be used during breaks, lunches and outside of the office. Flexibility will be provided in circumstances demanding immediate or emergency attention.

Voicemail - Company telephones are also equipped with voicemail. Voicemail was installed to help maintain our high quality of service for clients and to increase efficiency throughout the office. Voicemail will be an option to the caller; the call will not be put directly through to voicemail. It is recommended that employee greetings be changed daily. They should be brief and communicate your availability to clients.

Please contact Human Resources with questions about our Phone Call Policy.

PHOTOGRAPHY AND VIDEOTAPING IN THE WORKPLACE

Photography and videotaping has the potential to disclose confidential company information and jeopardizes employee privacy rights. As such, La'au Pono strictly prohibits photography and videotaping in the workplace, unless expressly authorized by Company management.

Employees are prohibited from using any device that has the capacity to capture photographic images or video images; this includes company issued and personal cell phones.

Any employee found to have violated this policy will be subject to disciplinary action, up to and including immediate termination of employment.

PERSONAL APPEARANCE

Dress, grooming, and personal cleanliness standards contribute to the morale of all employees and affect the business image La'au Pono presents to customers and visitors.

During business hours or when representing La'au Pono, you are expected to present a clean, neat, and tasteful appearance. You should dress and groom yourself according to the requirements of your position and accepted social standards. This is particularly true if your job involves dealing with customers or visitors in person.

Your supervisor or department head is responsible for establishing a reasonable dress code appropriate to the job you perform. If your supervisor feels your personal appearance is inappropriate, you may be asked to leave the workplace until you are properly dressed or groomed. Under such circumstance, you will not be compensated for the time away from work. Consult your supervisor if you have questions as to what constitutes appropriate appearance. Where necessary, reasonable accommodation may be made to a person with a disability.

Without unduly restricting individual tastes, the following personal appearance guidelines should be followed:

- Personal Protection Equipment (ex. Hearing, Eye, Fall, Back, Dust) must be used when required
- Shoes must provide safe, secure footing, and offer protection against hazards.
- Canvas or athletic type shoes are not appropriate professional attire.
- Tank tops, tube or halter tops, or shorts may not be worn under any circumstances.
- Offensive body odor and poor personal hygiene is not professionally acceptable.
- Jewelry should not be functionally restrictive, dangerous to job performance, or excessive.

HYGIENE

Employee Hygiene

La'au Pono encourages the practice of appropriate employee hygiene within the workplace. This includes but is not limited to:

- Washing hands after using the restroom;
- Limiting or abstaining from the excessive use of perfumes and colognes;
- Appropriate use of deodorant;
- Appropriate bodily cleanliness;
- Kept hair (pulled back); and

- Containment of communicable diseases.

Workplace Hygiene
La'au Pono encourages the practice of clean hygiene within the workplace.
This includes but is not limited to:

- Washing hands after using the restroom;
- The proper disposal of garbage;
- Proper sanitation in eating areas; and
- Cleanliness of workspace.

Managers and supervisors are responsible for interpreting and enforcing the hygiene policy at their discretion. This includes advising employees with inappropriate hygiene standards. Reasonable accommodation can be made in extreme circumstances.

Business necessity does call for professional standards in order to protect a clean and non distracting work place. Questions or concerns should be handled by an employee's immediate supervisor or the Director of Human Resources. Any employee may be sent home in order to correct a problem. La'au Pono seeks to remain in compliance with all relevant state and federal laws.

HOUSEKEEPING

La'au Pono expects all employees to keep work areas, break rooms, and La'au Pono property clean and well maintained at all times. The use of the break room and La'au Pono facilities is a privilege and proper care is required.

The break room and coffee station are available for employee use. Employees are permitted to use the refrigerator, microwave, toaster, and coffee maker. Employees are expected to clean all areas after using them.

Employee workspaces are also expected to be kept neat and orderly. Prior to leaving for the day, all employees are required to tidy up their work area and return all items to their proper location.

Any employee found to be contributing to unsanitary conditions will be subject to discipline, up to and including immediate termination of employment.

Questions regarding this policy should be directed to your supervisor.

MEDIA RELATIONS

La'au Pono is committed to providing the media with accurate information. To avoid discrepancies, specific guidelines should be followed when a media inquiry is received.

All media inquiries regarding La'au Pono and its operation must be immediately referred to Marketing Director, who is authorized to make or approve public statements regarding company business. Unless specifically designated by this person, you are not authorized to make those statements. If you wish to write or publish an article, paper or other publication on behalf of La'au Pono, you must first obtain approval.

La'au Pono will generally provide a response to media inquiries within 24 hours. Should the response require a detailed technical explanation, a spokesperson will be designated to address the issue. The spokesperson will be chosen carefully, based on their area(s) of expertise.

Media inquiries include, but are not limited to, official statements, press releases and advertisements.

Please contact Marketing Director with any questions or concerns you have regarding the Media Relations Policy.

COMPANY CREDIT CARD

La'au Pono offers company credit cards for employees who travel frequently for their duties, purchase large volumes of goods for use by the company or incur frequent business expenses that can be paid by credit card.

As a general rule, corporate credit cards cannot be used to obtain cash advances, bank checks or electronic cash transfers for anything other than the expenses incurred by the employee whose name appears on the credit card. The card is not to be used for personal expenses of the employee, either.

- Misuse of a Company credit card will result in cancellation of the card. If the card is used for personal expenses, La'au Pono has the right to recover these expenses from the cardholder. All employee cardholders will be required to sign an agreement authorizing La'au Pono to recover any amounts that are incurred for personal reasons out of their salaries.
- Credit card expenditures must be submitted with original receipts to Human Resources at the end of each calendar month. Cardholders who do not submit their expenditures within this time frame will be asked to submit them immediately.
- If a credit card holder does not follow this Policy, his or her card will be cancelled.
- Lost or stolen La'au Pono credit cards must be reported to Human Resources immediately.

COMMUNITY AFFAIRS

La'au Pono encourages employee involvement in community and civic activities. However, employees are expected to keep such activities in practical balance with their job requirements, which take first priority. Employees must also be sure that their involvement in community affairs does not present an apparent or actual conflict of interest with La'au Pono.

POLITICAL ACTIVITY

Employees of La'au Pono may engage in political activities outside of work hours, but should not allow their political affiliation to affect the performance of their work responsibilities and duties or relationships with coworkers and other employees.

SOCIAL NETWORKING AND SOCIAL MEDIA

La'au Pono is committed to maintaining a good relationship with its employees and the marketplace. The way the public views La'au Pono is vital to maintaining business, gaining new business, retaining first-class employees, recruiting new employees and marketing our products and services.

While La'au Pono has no intention of controlling employee actions outside of work, employees should practice caution and use discretion when posting content on all social media platforms. Employees have the right to use social media for personal expression on their own time, and La'au Pono will not violate employee privacy by attempting to access content that has not been made available publicly. This policy serves as a notice on the practice of social networking for all employees to read and understand. As more concerns develop and legislation is released, this policy is subject to change.

The purpose of this policy is to:

- To guarantee a constructive relationship between the company and its employees
- To manage risk and preserve La'au Pono's positive reputation
- To discourage the use of company time for personal social media activities
- To promote awareness among employees of the number of individuals who can access information presented on social networking sites

Definitions

Social networking and *social media* refer to any activity that involves interaction in online communities. This interaction includes, but is not limited to, browsing profiles and photos, reading messages sent through social networking forums and participating in instant messaging services.

A *social networking site* is any website that links individuals electronically and provides a forum where users can connect and share information. These websites can be tailored to specific interests or to certain types of users.

A *social networking profile* is a user's personalized page within a specific social networking site, usually containing personal information such as name, birthday, photo and interests.

Micro-blogging is the practice of publishing your recent whereabouts, thoughts or activities on a social networking site for other users to see. While not all social networking sites use micro-blogging, this is a primary focus of sites such as Twitter and Facebook.

Business purposes is considered using a social networking site for the company's gain, usually as a task or assignment given by a manager or supervisor. This can be done either through a specific company account on a given social networking site or through a personal account set up for the purposes of recruiting or marketing for La'au Pono.

The term *Working Hours* includes any time employees are being paid to conduct company business. Standard working hours are from 8:00am to 5:00pm, Monday through Friday. This timeframe may vary based on job type and responsibilities.

Procedures

Prohibited Use

It is important that employees use their time at work for business purposes. Employees are not blocked from access to social networking sites on La'au Pono computers because, under some circumstances, social networking is a powerful business tool that can be channeled to gain positive publicity for the company and to connect with clients. However, access to such websites should follow company policy. The following actions are prohibited during working hours:

- Using social networking sites to conduct personal or non-company business with a company computer or device.
- Browsing social networking sites for non-company business on company time with a company computer or device.
- Reading e-mail alerts regarding personal social networking account activity or using La'au Pono e-mail to correspond with personal social networking contacts.
- Updating information, uploading photos or otherwise engaging with one's personal social networking profile for non-business purposes with a company computer or device.
- Micro-blogging for a non-business purpose on a social networking site throughout the day, whether it is on a company-provided computer or a personal smart phone device.

Prohibited Conduct

Having your own individual social networking account and using it on your own time is certainly permissible. However, keep in mind that some actions on your personal site are visible for the entire social networking community and may no longer be considered private matters. La'au Pono has put

it in place a set of conduct guidelines to protect its brand and prevent the unwanted disclosure of confidential information. Please follow these guidelines:

- Do not use micro-blogging features to disclose trade secrets, publish internal reports, provide tips based on inside information or participate in other activities that may be considered insider trading.
- We urge you to consider resolving workplace grievances internally. If you choose to address a grievance using social media, we recommend you refrain from posting comments and materials that could be viewed as malicious, obscene, threatening, intimidating or that could create a hostile environment on the basis of race, sex, disability, religion or any other status protected by law.
- We also recommend you refrain from posting any opprobrious, reckless or maliciously untrue comments. These communications may not be protected by law.
- Do not impersonate La'au Pono or its employees, make statements on behalf of La'au Pono without authorization, or make statements that can be construed as establishing La'au Pono's official position or policy on any particular issue.

As stated above, the purpose of this policy is to protect La'au Pono's brand and prevent the disclosure of confidential information. It is not La'au Pono's intent to interfere with its employees' legal rights. Whenever state or federal law govern an area of social media participation, La'au Pono policies should be interpreted as to comply with them.

SUBSTANCE ABUSE

It is La'au Pono's desire to provide a drug-free, healthful, and safe workplace. To promote this goal, employees are required to report to work in appropriate mental and physical condition to perform their jobs in a satisfactory manner.

While on La'au Pono premises and while conducting business-related activities off La'au Pono premises, no employee may use, possess, distribute, sell, or be under the influence of alcohol or illegal drugs. The legal use of prescribed drugs is permitted on the job only if it does not impair an employee's ability to perform the essential functions of the job effectively and in a safe manner that does not endanger other individuals in the workplace.

Violations of this policy may lead to disciplinary action, up to and including immediate termination of employment, and/or required participation in a substance abuse rehabilitation or treatment program. Such violations may also have legal consequences.

To inform employees about important provisions of this policy, La'au Pono has established a drug-free awareness program. The program provides information on the dangers and effects of substance abuse in the workplace, resources available to employees, and consequences for violations of this policy.

Employees with questions or concerns about substance dependency or abuse are encouraged to discuss these matters with their supervisor to receive assistance or referrals to appropriate resources in the community.

Employees with drug or alcohol problems that have not resulted in, and are not the immediate subject of, disciplinary action may request approval to take unpaid time off to participate in a rehabilitation or treatment program. Leave may be granted if the employee agrees to abstain from use of the problem substance; abides by all La'au Pono policies, rules, and prohibitions relating to conduct in the workplace; and if granting the leave will not cause La'au Pono any undue hardship.

Under the Drug-Free Workplace Act, an employee who performs work for a government contract or grant must notify La'au Pono of a criminal conviction for drug-related activity occurring in the workplace. The report must be made within five days of the conviction.

Employees with questions on this policy or issues related to drug or alcohol use in the workplace should raise their concerns with their supervisor or the Risk Manager without fear of reprisal.

SEXUAL AND UNLAWFUL HARASSMENT

La'au Pono is committed to providing a work environment that is free from all forms of discrimination and conduct that can be considered harassing, coercive, or disruptive, including sexual harassment. Actions, words, jokes, or comments based on an individual's sex, race, color, national origin, age, religion, disability, sexual orientation, or any other legally protected characteristic will not be tolerated. La'au Pono provides ongoing sexual harassment training to ensure you the opportunity to work in an environment free of sexual and other unlawful harassment.

Sexual harassment is defined as unwanted sexual advances, or visual, verbal, or physical conduct of a sexual nature. This definition includes many forms of offensive behavior and includes gender-based harassment of a person of the same sex as the harasser. The following is a partial list of sexual harassment examples:

- Unwanted sexual advances.
- Offering employment benefits in exchange for sexual favors.
- Making or threatening reprisals after a negative response to sexual advances.
- Visual conduct that includes leering, making sexual gestures, or displaying of sexually suggestive objects or pictures, cartoons or posters.
- Verbal conduct that includes making or using derogatory comments, epithets, slurs, or jokes
- Verbal sexual advances or propositions.

- Verbal abuse of a sexual nature, graphic verbal commentaries about an individual's body, sexually degrading words used to describe an individual, or suggestive or obscene letters, notes, or invitations.
- Physical conduct that includes touching, assaulting, or impeding or blocking movements.

Unwelcome sexual advances (either verbal or physical), requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when: (1) submission to such conduct is made either explicitly or implicitly a term or condition of employment; (2) submission or rejection of the conduct is used as a basis for making employment decisions; or, (3) the conduct has the purpose or effect of interfering with work performance or creating an intimidating, hostile, or offensive work environment.

If you experience or witness sexual or other unlawful harassment in the workplace, report it immediately to your supervisor. If the supervisor is unavailable or you believe it would be inappropriate to contact that person, you should immediately contact the Risk Manager or any other member of management. You can raise concerns and make reports without fear of reprisal or retaliation.

All allegations of sexual harassment will be quickly and discreetly investigated. To the extent possible, your confidentiality and that of any witnesses and the alleged harasser will be protected against unnecessary disclosure. When the investigation is completed, you will be informed of the outcome of the investigation.

Any supervisor or manager who becomes aware of possible sexual or other unlawful harassment must immediately advise the Risk Manager or any member of management so it can be investigated in a timely and confidential manner. Anyone engaging in sexual or other unlawful harassment will be subject to disciplinary action, up to and including termination of employment.

OFF DUTY CONDUCT

While the Club does not seek to interfere with the off-duty and personal conduct of its employees, certain type of off-duty conduct may interfere with the Club's legitimate business interests and organizational goals. For this reason, employees should be aware of the following policies:

- Employees are expected to conduct their personal affairs in a manner that does not adversely affect the Club's or their integrity, reputation, or credibility. Illegal or immoral off duty conduct that adversely affects the Club's legitimate business interests or the employee's ability to perform his or her job will not be tolerated.

- While employed by the Club, full time employees are expected to devote their energies to their jobs with the Club. For this reason, second jobs are strongly discouraged (unless it clearly does

not interfere with the work at the Club). The following types of outside employment are strictly prohibited:

1. Employment that conflicts with an employee's work schedule, duties, and responsibilities;

2. Employment that creates a conflict of interest or is incompatible with the employee's employment with the Club.

3. Employment that impairs or has a detrimental effect on the employee's work performance with the Club.

4. Employment that requires the employee to conduct work or related activities on the Club's property during Club's working hours, using the Club's property during the Club's working hours, or using the Club's facilities and/or equipment.

5. Employment that directly or indirectly competes with the business or the interests of the Club. Employees who wish to engage in outside employment that may create a real or apparent conflict or interest must submit a written request to the Unit Director or Human Resources explaining the

details of the outside employment. If the outside employment is authorized, the Club assumes no responsibility for the outside employment. The Club shall not provide workers' compensation coverage or any other benefit for injuries occurring from or arising out of outside employment.

PERSONAL PROPERTY WAIVER

La'au Pono assumes no liability whatsoever for the damage, loss or theft caused by third parties to the personal property of staff members.

All storage facilities, offices and workspaces, including desks and lockers, are the property of La'au Pono, and La'au Pono reserves the right to have access to these areas and to such property at any time, without advance notice to any employee. Therefore, employees should not expect that such property will be treated as private and personal to the employee. Likewise, electronic mail and voice mail are also company property and are to be used only for business purposes. Internet accounts are also to be used only for company business. La'au Pono reserves the right to inspect, monitor and have access to company computers, electronic mail, voice mail messages and Internet communications.

To promote the safety of employees and company visitors, as well as the security of its facilities, La'au Pono reserves the right to conduct video surveillance of any portion of its premises at any time. Video cameras will be positioned in appropriate places within and around company buildings. The only exceptions to this policy include private areas of restrooms, showers and dressing rooms.

Employee Acknowledgement:

I acknowledge that I have received a copy of La'au Pono's policy on personal property and expectations of privacy. I have also been given the opportunity to read and ask questions about the policy. I understand that by signing this acknowledgement, I agree to accept the policy as a condition of my employment or continuing employment with La'au Pono.

Print Name:

Date:

Signature:

REPORT OF JURY DUTY PAY

Employee Name: _____ Date: _____

Employee Location: _____ Employee ID#: _____

This form should be submitted to Human Resources.

I was out of the office on jury duty from _____ to _____, or (if you did not serve on consecutive days) on these dates: _____.

This is a copy of my jury duty pay statement. I understand that, although La'au Pono's benefits program includes pay continuation during jury duty, the additional money I earn while performing jury duty must be paid to La'au Pono. I understand, therefore, that my jury duty pay—pay only, not the transportation allowance—will be:

- ❑ Subtracted from a future paycheck
- ❑ Endorsed and paid directly to La'au Pono.

Signed: _____

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RECEIPT OF HARASSMENT POLICIES

As described in the Harassment Policy and the Sexual Harassment Policy, harassment is prohibited at La'au Pono.

By signing below, you acknowledge that you have received a copy of La'au Pono's Harassment Policy and Sexual Harassment Policy, and understand that it is your responsibility to read and comply with both policies and any revisions made to them.

_____ _____

Signature Date

_____

Print your full name

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VACATION REQUEST FORM

Employees of La'au Pono must submit their vacation requests for approval at least 2 weeks in advance. Vacations may be taken in full days

Employee Name: _____

Supervisor Name: _____

Department: _____

Date: _____ Number of Hours: _____

Reason for Vacation:

Vacation Request is: ❑ Approved ❑ Denied

Supervisor Signature: _____ Date: _____

HawaiianEthos

Altres HR Services

Hawaiian Ethos

Shelby Floyd [redacted] Mon, Jan 25, 2016 at 2:56 PM

[redacted]

-------- Forwarded message ---------
From: **Rebecca Morton** <Rebecca.Morton@altres.com>
Date: Mon, Jan 25, 2016 at 2:40 PM
Subject: RE: Hawaiian Ethos
To: Shelby Floyd <[redacted]

[redacted]

[redacted]

[redacted]

Rebecca Morton | Human Resources Consultant
simplicity HR™ | ALTRES.
ALTRES
[redacted]

With HR Symphony™ being an employer is now easier than ever. Watch the videos >>>

IMPORTANT/CONFIDENTIAL: This message from ALTRES contains information which may be confidential, privileged, and/or exempt from disclosure under applicable law. If you are not the addressee (or authorized to receive for the addressee), you are hereby notified that the copying, use or distribution of any information or materials transmitted in or with this message is strictly prohibited. If you received this message in error, please immediately notify me (the sender) by replying to this email, then promptly destroy the original message.

HR SELECT AGREEMENT

ALTRES

simplicityHR™

What We Do

ALTRES provides a full-service, customizable human resource solution for employment administration. As of the Effective Date, We will provide:

Payroll Administration. All wages and taxes are calculated and paid based on complete, timely, and accurate reporting by You. Such service(s) will include:

a) Issuance of payroll vouchers to Employees;
b) Withholding and deposit of required payroll taxes as a reporting agent;
c) Filing of required Federal and State employment and withholding tax forms, returns, and informational reports as a reporting agent;
d) Administering Your unemployment compensation insurance; and
e) Administering garnishments applicable with State law.

HR Symphony™. We will provide secured access to ALTRES' integrated, Internet-based Human Resources Information System (HRIS), allowing you to:

- Maintain information
- Access the ALTRES QuickHire system for new hires
- Transmit payroll data
- Generate reports
- Download and access:
  - Forms repository
  - Federal and State tax forms
  - General Employment Policies/Employee Handbook
  - On-demand HR training
  - On-demand safety training

Employee Handbook. We will provide a general employee handbook (General Employment Policies/GEP), as well as a customized employee handbook for Your use.

Workers' Compensation. We will administer Your worker compensation insurance and manage the policy including claims and audits.

Temporary Disability Insurance ("TDI"). We will administer Your TDI and administer the benefits accordingly.

Health Insurance. We will administer Your health insurance plan.

COBRA. We will administer COBRA benefits for Your Employees participating in Your health insurance plan.

ALTRES Lifestyle Benefits® Program. Eligible Employees will be able to participate in ALTRES' menu of Lifestyle Benefits. We will continue to administer and maintain relationships with the vendors. Please refer to Attachment A for additional information.

401(k) Plan. At Your direction, We will make available to Employees a 401(k) plan in accordance with Federal law.

Leave Tracking. Upon prior approval by ALTRES of Your leave policies, We will provide leave tracking services in relation to vacation, sick leave, other paid time off, and FMLA/HFLA.

Drug Screening Administration. Upon Your request, We will perform drug screening administration through a third party vendor, including pre-employment, random, reasonable suspicion, and post-accident testing. Please refer to Attachment A for additional information.

HR Support Services. We will provide access to an experienced HR Specialist for services, such as on-site employee orientations, compensation analysis, FLSA status, job descriptions, employee satisfaction survey, investigations, complex terminations, responding to employment claims and charges, site-specific training, employment-related audit preparation, and on-site assistance with employee coaching and counseling/disciplinary actions.

▶ **Initials** _____

simplicit

What You Do

Under this Agreement, You agree that:

- You are the sole employer of the Employees throughout the Term of this Agreement;
- You remain solely responsible for Your business operations, products, services, intellectual property, and for the well-being and safety of the Employees;
- You are responsible for the workplace and the activity in it, and the continual supervision and control of the Employees on a day-to-day basis;
- You have disclosed all pending Employee claims and current employment agreements;
- You will exercise such supervision and control in compliance with all applicable laws, regulations, rules or ordinances, including employment-related laws applicable to You prior to and during the Term of this Agreement;
- You remain solely responsible for interviewing, screening, and verifying the suitability and qualifications of the Employees for Your job functions prior to and during this Agreement;
- You remain solely responsible for all employment decisions, including but not limited to hiring, performance review, disciplinary action, tracking any available leave such as FMLA, and termination;
- You are responsible for the completion and submission of all new-hire paperwork to Us, including the verification of I-9 forms for Employees and to obtain other necessary work visas for Employees, and maintain and make available for inspection all personnel records;
- To the extent HR Symphony™ is in use, You are responsible for reporting complete, timely, and accurate time and attendance records, rates of pay (including but not limited to each employee's "regular rate of pay" within the meaning of federal and state wage and hour laws), hours worked, exempt status, monies earned by Employees for each regularly scheduled pay period, and any discrepancies in wages paid to Employees;
- You understand and acknowledge that ALTRES pays Employees solely based on information You provide and that ALTRES has not undertaken to provide advice or services regarding, and is not responsible for, the calculation and determination of employees' rates of pay, hours worked, exempt status, or monies earned by Employees in any pay period;
- You will notify ALTRES immediately of any terminations in order to allow ALTRES to evaluate payroll, unemployment, and COBRA responsibilities;
- You are solely responsible for the provision of funds for and the payment of gross wages (including bonuses, commissions, and severance), which are disbursed to Employees working for You;
- You are solely responsible for all complaints or claims by Employees and associated liability and legal fees;
- You will cooperate with ALTRES in the investigation of any workplace complaint or incident, and upon request allow ALTRES to inspect and access Your premises, records, and Employees in order to investigate the alleged violation of any policy, law or other workplace incident;
- Unless otherwise provided for in this Agreement, You are solely responsible for determining eligibility, participation, and contribution matters related to all benefit plans and to notify Us by the 25th of each month of any changes to enrollment;
- We are not responsible to pay or accrue any remuneration to any Employee unless we have agreed in advance including but not limited to premiums or contributions payable for employee benefit plans (including through the end of the month in which the Employee was terminated), unused paid time off, accrued vacation or sick leave, and expense reimbursement;
- You remain solely responsible for compliance with any State or Federal notice requirements in relation to the closing or downsizing of Your business, including but not limited to the Worker Adjustment and Retraining Notification Act ("WARN") and the Hawaii Dislocated Workers Act, and You agree to notify ALTRES at least sixty (60) days prior to taking any action which is covered by any State or Federal plant closing law;

(continued on following page)

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What You Do (continued)

- You shall maintain the standard insurance coverage commensurate with Your industry standards for general liability and professional liability, and if applicable, automobile coverage, (including hired and non-owned vehicle coverage) and homeowner's insurance (if Employee works out of your residence for business purposes), throughout the Term; but in no event, less than a One Million Dollar ($1,000,000) minimum limit on each coverage. Additionally, You shall instruct Your insurance carrier(s) to name ALTRES as a certificate holder and to provide for not less than 30 days' written notice to ALTRES prior to the cancellation of or to any effective changes to coverage; and
- You are responsible for reporting to ALTRES, for Form W-2 purposes, all TDI wages (as defined under state law) paid out to Employees.

▶ Initials .....

Workers' Compensation and Safety Practices

The safety and welfare of Your Employees is of the utmost importance. In this regard

- You shall maintain workers' compensation insurance coverage for all Employees during the Term of this Agreement.
- Your workplace must comply with all Federal and State regulatory aspects of doing business required by law, including but not limited to the Occupational Safety & Health Act ("OSHA").
- You shall provide at Your sole expense and ensure use of all personal protective equipment.

▶ Initials .....

Service Rates

In consideration of the Services provided by ALTRES, You agree to pay ALTRES a monthly Service Rate [redacted] per month. The monthly service rate shall be calculated based on the number of all Employees who are both active (employees that work in the current month) and terminated (employees that are terminated within the current month) and will include those Employees on Worker's Compensation, Temporary Disability, and/or any other leave of absence. The monthly service rate will be invoiced incrementally based upon the number of pay cycles processed within the calendar month.

You agree that the application and calculation of the rate and additional fees in Attachment A are reasonable and not necessarily related to any specific cost of doing business by, or a source of profit for, either Party to this Agreement.

We may adjust any rate or amend any other provision of this Agreement by providing thirty (30) days' prior notice to You. The new Service Rate(s) will be fixed for a period of one (1) year from the date it is adjusted.

▶ Initials .....

Payment Terms

You agree to the following payment terms:

- All invoices must be paid in full upon receipt, via ACH transfer, cashier's check, or company check depending on Your credit standing determined by ALTRES.
- Any amounts not paid when due will be subject to a late payment penalty of 5% of the amount due plus carrying charges of 1% per month.
- In the event a payment is returned due to insufficient funds, a $100 service charge will be assessed.
- If You fail to make payment as provided herein, You assume full liability and responsibility for any wages, taxes, insurances, and employment matters arising subsequent to the last pay period for which ALTRES was paid according to these terms.
- Your failure to pay on dates due, or at any other time reasonably established by ALTRES, shall be a material breach of this Agreement and, at the election of ALTRES, grounds for immediate termination of this Agreement.
- We retain the right to modify the payment terms as We deem reasonable and, in light of Your ability to pay, to require, among other things, payment prior to the provision of services based on the invoice for the previous pay period.

▶ Initials .....

Indemnification

ALTRES is dedicated to fulfilling our obligations under this Agreement, and because We have no financial interest in Your business nor are We a beneficiary from the work performed by the Employees, We require indemnification from Your business, Your practices, and Your products and services.

Our Indemnification to You:

- Notwithstanding any other provision of this Agreement, and consistent with CUSTOMER's willingness to cooperate with ALTRES in the performance of its obligations, ALTRES indemnifies and holds CUSTOMER and its officers, directors, shareholders, employees, and agents harmless against CUSTOMER's out-of-pocket costs incurred as a direct result of the failure of the performance of ALTRES' obligations. Such costs are limited to ALTRES' monthly service rate which has been paid by CUSTOMER to ALTRES in the twenty-four (24) months preceding first notification to ALTRES of any alleged failure to perform ALTRES' obligations under this Agreement.

Your Indemnification to ALTRES:

- Notwithstanding any other provision of this Agreement, CUSTOMER shall indemnify, defend, and hold harmless ALTRES and its officers, directors, shareholders, employees, and agents from and against any and all liability, expense (including attorneys' fees and costs of litigation) and claims for damages of any nature whatsoever, whether known or unknown, which ALTRES may incur, suffer, become liable for, or which may be asserted against ALTRES and which are based on, related to, arise out of, or are connected with:
  - Any claim or conduct that occurred prior to the Effective Date of this Agreement;
  - CUSTOMER's business operations, products, goods, or services;
  - Any claim that CUSTOMER violated any applicable laws, regulations, rules, or ordinances, including employment-related laws applicable to CUSTOMER prior to and during the Term of this Agreement;
  - Any negligent act, tortious conduct, or breach of this Agreement by CUSTOMER;
  - The activities, conduct, errors, or omissions of CUSTOMER or Employees;
  - Any premises, property, machinery, equipment, vehicles, or facilities owned, used, rented, leased, or borrowed by CUSTOMER or Employees;
  - Claims of discrimination (including but not limited to retaliation, sexual harassment, or wrongful discharge) or other employment-related claims asserted by CUSTOMER's employee's or Employees (including but not limited to claims for unpaid wages or other claims under federal or state wage and hour laws);
  - The use, production, sale, or disposal of hazardous or dangerous chemicals, materials, or products by CUSTOMER or CUSTOMER's employees or Employees on CUSTOMER's behalf; or
  - Any other claim, demand, investigation, audit, or suit by any of CUSTOMER's employees or Employees, any government agency, or any third party.

All indemnity obligations and liabilities assumed by CUSTOMER under this Agreement are without monetary limit and without regard to the cause or causes thereof or the negligence of any party or parties. CUSTOMER shall pay all such invoices in accordance with the payment terms under this Agreement. All indemnification obligations shall survive the expiration, breach, or termination of this Agreement.

▶ Initials _____

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Term

Our Agreement is in effect and renews based on the terms below:

- This Agreement shall be valid for a term of one (1) year ("Initial Term") to begin on the first day of the first pay period that ALTRES pays Employees ("Effective Date").
- Thereafter, this Agreement will automatically renew from year to year ("Renewal Term") unless terminated by either Party. The period that this Agreement is in full force and effect is referred to as the "Term."
- Notwithstanding termination of this Agreement by either Party, CUSTOMER will continue to meet all obligations that remain outstanding or for which performance by CUSTOMER remains due, including, without limitation, the obligation of CUSTOMER to pay all ALTRES invoices.

▶ Initials _____

Termination

Because business needs can change for either party, our relationship can be terminated as follows:

- Either Party may terminate this Agreement with or without cause by providing no less than sixty (60) days' prior written notice to the other Party. If CUSTOMER fails to provide sixty (60) days' prior written notice CUSTOMER shall pay ALTRES a termination notice penalty of $75 per employee.
- ALTRES may, in its sole discretion, immediately terminate this Agreement for any breach of this Agreement by CUSTOMER, including but not limited to failing to pay any amounts when due, or if ALTRES determines that CUSTOMER is a credit risk or financially insecure.

Upon termination of this Agreement for any reason, CUSTOMER agrees:

- That ALTRES is relieved immediately of its contractual obligations;
- To pay all outstanding invoices or other amounts due to ALTRES and to assume sole responsibility and liability for all legal obligations as an employer to Employees;
- To execute a Termination Affidavit provided by ALTRES; and

Upon notice of termination, ALTRES has a right to modify or terminate CUSTOMER's access to HR Symphony without notice.

If CUSTOMER elects to terminate this Agreement during the Term and uses the services of another professional employer organization, human resource outsourcer, or payroll service provider (as opposed to performing such services through internal CUSTOMER resources), CUSTOMER agrees to pay ALTRES a cancellation fee of $75 per Employee per month for each month remaining in the Term of the Agreement.

With no cancellation fee, after one (1) year from the Effective Date, you may change to the HR Select (O-level) or HR Essentials program. You may, at any time during the Term of this Agreement, upgrade to the HR Advantage or HR Options program, which provides additional services. Simply contact your ALTRES representative to request the upgrade.

▶ Initials _____

Attachment A: Service Details

PAYROLL ADMINISTRATION		
Service Item	**Description**	**HR Select (A-level)**
Account Setup Fee	A one-time fee for setting up an account	$0
Expert Payroll Processing	Accurate and timely processing of paychecks	✓
Web-Based Payroll Submission via HR Symphony™	Access to our integrated, Internet-based human resources information system (HRIS) for payroll submission	✓
Employee Access to Pay History	Secure online access to check history, deductions, W-2s, etc.	✓
Customized Time & Attendance System	Access to ALTRES' Internet-based daily time and attendance system for employees and managers	✓
Tax Management	ALTRES will file and audit all Federal and State employment taxes	✓
Payroll Delivery	Delivery of paychecks directly to a worksite	✓
Direct Deposit	Option, upon credit approval by ALTRES, to have paycheck funds automatically deposited into employees' personal bank accounts	✓
Insurance & Pre-tax Benefit Deductions	Payroll deductions for medical insurance premiums, retirement plan contributions, and pre-tax benefit plans	✓
Wage Garnishments	Court-ordered wage garnishments for unpaid child support, defaulted student loans, unpaid taxes, unpaid court fines, etc..	✓
Bi-weekly Processing	Standard payroll cycle processed every 2 weeks	✓
Semi-monthly processing	Semi-monthly payroll processed twice a month	✓
Paid Time Off (PTO) Tracking	Tracking of paid leave balances (e.g., vacation, sick leave, PTO) in accordance with company policies	✓
Union Payroll	Administering union payroll according to your collective bargaining agreement	✓
Certified Payroll	Administering certified payroll and all required documentation	✓
Out-of-Sequence Processing	Processing checks outside of the normal pay period	✓
HR Symphony™ Report Builder	Pre-formatted and customizable payroll and personnel reports	✓
Custom-Programmed Payroll Reports	Providing payroll reports customized to your needs	✓
Late or No Payroll Run	No submission of time & attendance records for payroll processing	✓
Insufficient Funds	If funds are not readily available in your account for payroll	$100 service charge will be assessed

WORKERS' COMPENSATION & SAFETY		
Service Item	**Description**	**HR Select (A-level)**
Workers' Compensation Coverage	Insurance coverage that provides cash benefits and medical care if an employee becomes disabled due to an on-the-job injury or illness	Admin Only
Expert Claims Administration	Professional claims management and processing	✓
Deductible (per incident)	Administrative fee paid for each incident involving an on-the-job injury	Based on client's policy
Claims Investigations	Investigations of potential claims fraud or abuse	✓
24-Hour Injury Hotline	24-hour phone service for reporting injuries on the job	✓
Safety Training	Workplace safety instructions and education; categories include General Safety, Industrial Safety, Medical Safety, and Safety for Supervisors	✓
Safety & Risk Management Consulting Services	Risk management specialists are able to perform on-site evaluations and provide safety instructions tailored to specific work sites	✓
Initial On-Site Safety Inspection	Initial on-site safety inspection to include recommendations for corrective actions	✓
Ongoing Safety Inspections	On-site safety inspections to include recommendations for corrective actions	✓
OSHA Assistance	Assisting clients in complying with Occupational Safety & Health Administration regulations	✓
Return-to-Work Programs	A program that provides opportunities for employees to return to work following illness or injury	✓
First Aid Care	Expenses for any and all medical treatment deemed first aid	At cost
OCIP/Wrap Up	Account set up of any Owner-Controlled Insurance Program (OCIP)	✓
Waiver of Subrogation	ALTRES to assume additional risk when a waiver of subrogation is requested	Based on client's policy

HUMAN RESOURCES SUPPORT		
Service Item	**Description**	**HR Select (A-level)**
HR Symphony™ Online Human Resources Information System (HRIS)	ALTRES' customized HRIS provides managers on-demand access to personnel data and reports, while employees have online access to their pay history and employee benefits information	✓
Paperless New Hire Onboarding	Our online QuickHire system allows new hires to complete practically all employment forms at home on their own time	✓
Employee Recordkeeping	Safe and secure maintenance of employee records.	✓
Legally Required Postings	Posters detailing federal & state employment laws must be posted conspicuously in the workplace	✓
General Employment Policies (GEP)	A written summary of company policies; available online	✓
Customized Employee Handbooks	An expansion of General Employment Policies to include your specific policies and benefits	✓

Service Item	Description	HR Select (A-level)
Employee Relations	Assisting in maintaining positive employer-employee relationships concerning work-related issues	✓
HR Audits	Comprehensive on-site review of human resources policies, processes, and documents	✓
Disciplinary Action Support	Assistance in corrective discipline of employee behavior	✓
HR Investigations	Investigation of any job-related misconduct by an employee	✓
Employee Termination Support	Assistance with employee terminations to minimize liability	✓
Employee Orientations at ALTRES	Orientations at ALTRES site to include the completion of new hire tax forms, employment eligibility verification, benefits enrollment, and review of General Employment Policies (or handbook)	✓
Employee Orientations On Site	Orientations at your site to include the completion of new hire tax forms, employment eligibility verification, benefits enrollment, and review of General Employment Policies (or handbook)	✓
Drug Testing Administration	Assistance with drug testing policies and procedures	At cost
Exempt/Nonexempt Classification	Classifying employees based on their pay and job responsibilities	✓
Job Descriptions	Development and assistance with job descriptions	✓
Salary Reviews & Compensation Plan Design	An assessment of employee pay rates in comparison to job performance, internal conditions, and/or external market analysis	✓
Performance Management	Assistance in monitoring and managing your organization's, team's, or employee's performance according to key indicators	✓
Organizational Development	Assisting in helping your organization make internal changes to become more effective and productive	✓
Job Assessment Analysis	Implementing a study to determine key responsibilities and necessary skills of a specific job	✓
Hiring Process Consulting	Consulting on effective interviewing methods, screening and hiring processes	✓
Recruitment Consulting	Consulting to find and recruit qualified job applicants	✓
Employee Retention Consulting	Consulting to improve employee retention	✓
Employment-related Audit Preparation	Assistance in preparing audit-related documents such as employee census and payroll benefit records	✓
Employee Climate Surveys	Developing and/or administering an employee climate survey	✓
HR-related Training	HR basics and performance management training courses to include hiring, interviewing, performance expectations, HR policies, and employee terminations	✓

BENEFITS ADMINISTRATION		
Service Item	**Description**	**HR Select (A-level)**
Vendor Relations, Rate Negotiations & Paperwork Processing	Ongoing relationships with health care and other benefit plan providers (depending on tier of service), rate negotiations, compliance with state and federal laws, and paperwork related to benefits administration	✓
Benefit Plan Enrollment	Employee enrollment services for health plans and, depending on tier of service, retirement plans, flexible spending accounts, and other employee benefits	✓
Open Enrollment Management	Annual open enrollment processes for health care plans and, depending on tier of service, pre-tax programs such as flexible spending accounts (FSAs) and commuter expense plans	✓
Billing Reconciliation	Reconciling invoices & payments for employee benefits being administered by ALTRES	✓
Multiple Carriers	The option to make more than one health plan carrier available for employees (available upon approval)	Client's plans
Medical Eligibility Tracking	Monthly tracking of employees' hours to verify eligibility to receive health insurance coverage	✓
COBRA Administration	Administering and providing COBRA health benefits to qualified former employees	Client's plans
Employee Communications	Fielding employee inquiries and managing announcements, notifications and other information via mail, email and/or phone	✓

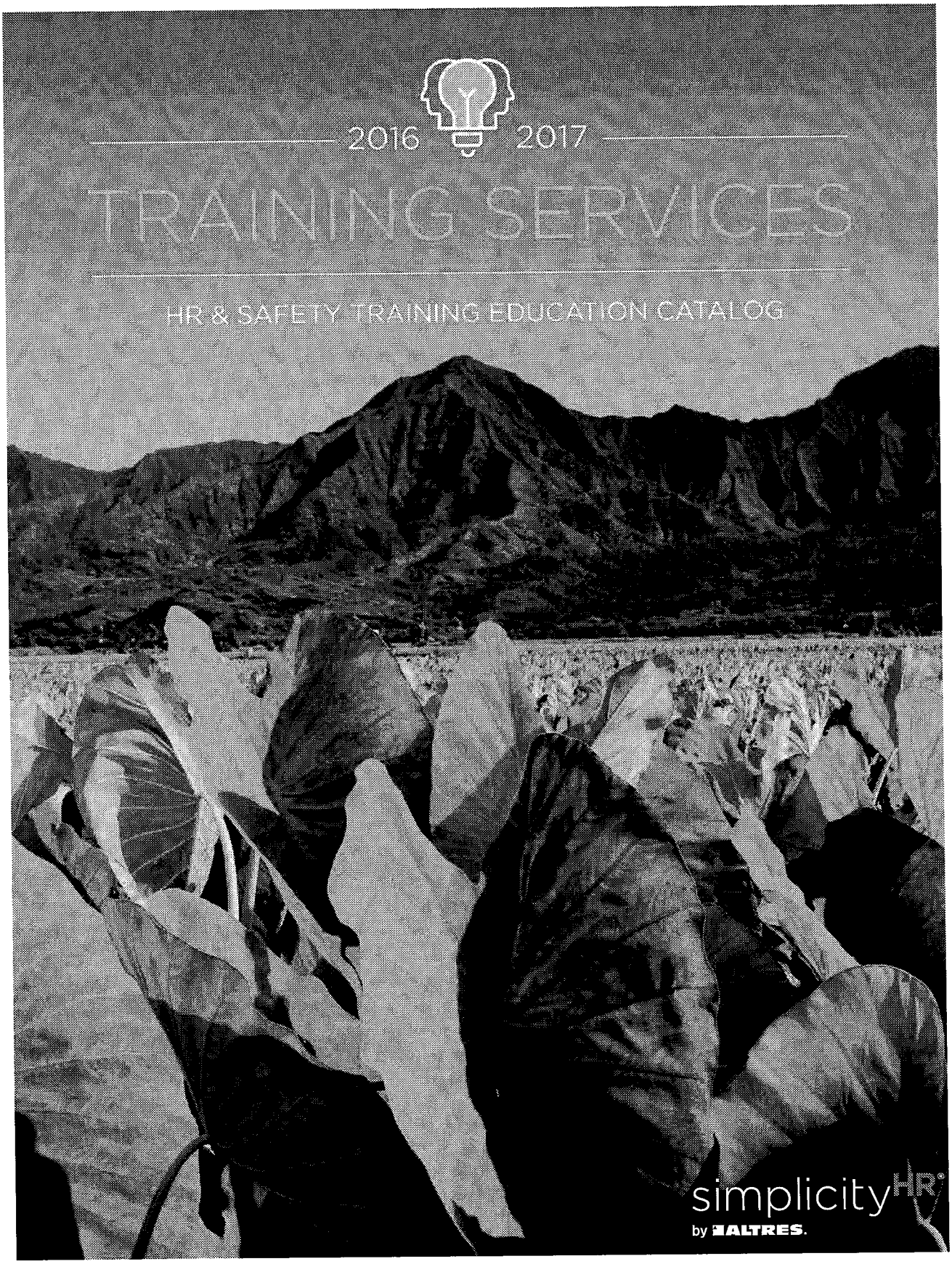
CORE EMPLOYEE BENEFITS		
Service Item	**Description**	**HR Select (A-level)**
Temporary Disability Insurance (TDI)	Providing employees with partial compensation for loss of wages caused by a non-work-related sickness or injury	Admin Only
AFLAC Supplemental Insurance	Supplemental health and life insurances that pay cash benefits to employees in the event of a specific and serious health problem	Client's plan
Group Life and AD&D Insurance	Available to eligible employees	Client's plan
Supplemental Group Life and AD&D Insurance	Available to eligible employees	Client's plan
Long-Term Care Insurance	Available to eligible employees	Client's plan
Flexible Spending Accounts (Section 125)	Available to eligible employees	Client's plan
Pre-Tax Commute Plan (Section 132)	Available to eligible employees	Client's plan
Individual Retirement Account (IRA)	Available to eligible employees	✓
401(k) Retirement Plan	Available to eligible employees	✓
Confidential Employee Assistance Program (EAP)	Provides employees professional, confidential support services for emotional, work-life, legal, financial, and family issues	N/A
Tuition Assistance Program	ALTRES will reimburse eligible employees up to $500 per calendar year for the cost of career development and work-related courses that meet specific criteria	N/A

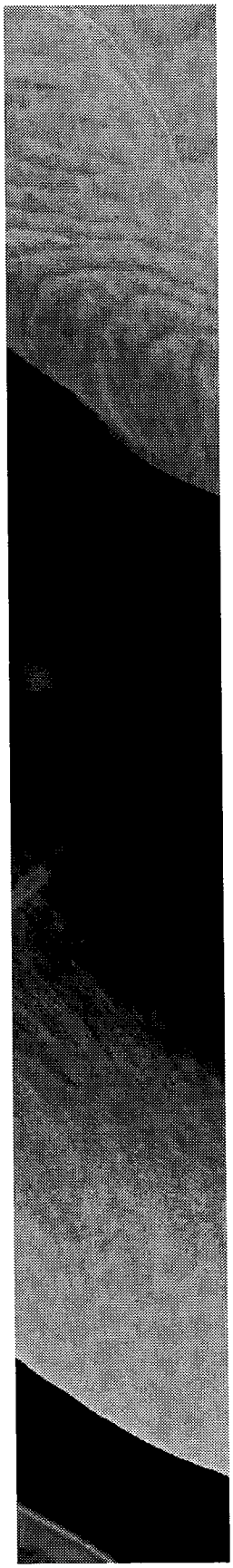
LIFESTYLE BENEFITS® PROGRAM

Service Item	Description	HR Select (A-level)
24-Hour Fitness Discount	Special rates to 24-Hour Fitness with no enrollment fee	✓
AAA Membership Discount	Annual AAA memberships with no enrollment fee	✓
Hawaii Central Credit Union	Free membership and no surcharge fees at many ATMs	N/A
Car Rental Discounts	Special corporate discount rates with Alamo Car Rental, Hertz, and National Car Rental	✓
Movie Ticket Discounts	Discounted movie tickets for Consolidated Theatres and Regal Cinemas (formerly Signature Theatres)	✓
Entertainment Discounts	Discounts to selected amusement and theme parks	✓
Family Loan Program	An automobile loan service for qualified Oahu parents; available through Child & Family Service and American Savings Bank	✓
Financial Planning Services	A free financial check-up that includes a review of financial goals and assistance in planning	✓
H&R Block Discount	Valuable individual tax preparation discount	✓
Hawaii Self Storage Discount	Special discounts off new storage rentals at selected locations	✓

EDUCATION & TRAINING SEMINARS

Service Item	Description	HR Select (A-level)
Monthly Seminar Series	Regularly scheduled seminars to promote better understanding of HR and safety topics, plus manager/ supervisor and individual staff member development.	✓ (materials cost only, if applicable)
Safety Training	Workplace safety instructions and education; categories include General Safety, Industrial Safety, Medical Safety, and Safety for Supervisors	✓ (materials cost only, if applicable)
Training for Managers & Supervisors	A wide range of topics to assist managers and supervisors with performance management and legal compliance.	✓ (materials cost only, if applicable)
Staff Training	Content designed to help individuals and teams work together more efficiently and deliver better service to customers or clients	✓ (materials cost only, if applicable)


2016 2017
TRAINING SERVICES
HR & SAFETY TRAINING EDUCATION CATALOG
simplicity HR
by ALTRES.



TRAINING SERVICES CATALOG

HR CONSULTATIONS + EDUCATION

GENERAL HR TOPICS

- Addressing Absenteeism
- Americans with Disabilities Act (ADA) and ADA Amendments Act (ADAAA)
- Avoiding Workplace Discrimination Claims
- Change Management
- Dealing with Conflict in the Workplace
- Disciplinary Action Procedures
- Employee Performance Reviews
- Genetic Information Nondiscrimination Act (GINA)
- Handling Terminations Effectively
- Health Insurance Portability and Accountability Act (HIPAA)
- Motivating Difficult Employees
- Understanding the Fair Labor Standards Act (FLSA)
- What Managers Need to Know About Benefits-Related Leave (FMLA, TDI & Workers' Compensation)

SUPERVISOR CERTIFICATE SERIES

1. Diversity & Sensitivity
2. Fundamentals of HR
3. Supervisor Basics
4. Hiring & Interviewing Skills
5. Managing Performance
6. Retaining & Developing Employees

MANAGING & DEVELOPING EMPLOYEES

- People Skills 1: Behavior Styles
- People Skills 2: When Styles Collide
- GREAT Customer Service
- Diversity & Sensitivity in the Workplace
- Supervisor Tools
- FranklinCovey: The 5 Choices to Extraordinary Productivity
- FranklinCovey: The 7 Habits of Highly Effective People
- FranklinCovey: Closing the Execution Gap
- FranklinCovey: Leadership Series

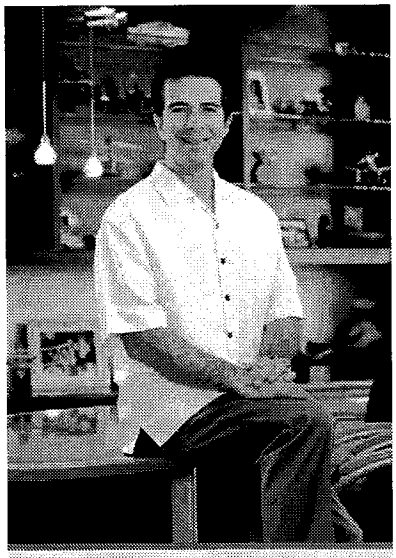
SAFETY TRAINING + EDUCATION

GENERAL SAFETY
- Alcohol & Drug Awareness for Employees
- Back Safety
- CPR/AED Certification
- Driving Safety
- Emergency Preparedness
- Ergonomics
- Fire Safety
- First Aid Certification
- Front Desk Personnel Safety
- General Safety Training
- Highlights of Hawaii Workers' Compensation Law
- Kitchen Safety
- Nightclub Security Safety Basics
- Ocean Organism Awareness
- OSHA General Industry
- OSHA 10-hour and 30-hour Courses for General Industry
- Personal Protection & Safety
- Slips, Trips & Falls Safety
- Stress Management
- Workplace Violence Prevention & Safety

MEDICAL SAFETY
- Blood Borne Pathogens (BBP)
- Healthcare Provider CPR Certification
- OSHA Industrial Hygiene
- Patient Transfer
- Personal Protective Equipment (PPE)
- Respirator Fit Testing
- Respiratory Protection
- Tuberculosis (TB) Awareness

SAFETY FOR SUPERVISORS
- Alcohol & Drug Awareness for Supervisors
- Root Cause Analysis Training
- Safety Investigation Principles for Supervisors
- Strategic Safety Planning

INDUSTRIAL SAFETY
- Chainsaw Safety
- Electrical Safety
- Forklift Training and Certification
- Hazard Communications
- Hearing Safety
- Heat in the Workplace
- Ladder Safety
- Lock Out/Tag Out
- OSHA Fall Protection
- OSHA Construction Industry
- OSHA 10-hour and 30-hour Courses for the Construction Industry
- OSHA Permit-Required Confined Space
- OSHA Scaffolding
- OSHA Trenching/Excavation
- Machine Guarding
- Material Safety Data Sheets (MSDS)
- Pallet Jack Training
- Personal Protective Equipment
- Power & Hand Tool Safety
- Radiation Safety
- Respirator Fit Testing
- Respiratory Protection
- Trenching Safety
- Zipline Safety



Your organization's success and the development of your employees mean everything to us. That's why we provide such a rich and varied selection of learning opportunities for both you and your employees. Through client consultations, monthly seminars, and on-site workshops, we aim to help you build a stronger, safer, and more customer-friendly company.

We're proud of our top-notch training capabilities and our capacity to serve you.

Aloha,

Barron Guss
President and CEO

"The Supervisor Certificate Series has been so helpful for me as a first-time supervisor. I have learned so much about the technical aspects of supervising/leading, but even more importantly about the relational aspects of the role. Understanding the importance of clear expectations has made a real difference in both managing my staff and in servicing our clientele."

Nancy N.
Owner, Aloha Organizers

HR CONSULTATIONS + EDUCATION

HR GENERAL TOPICS

Our team of dedicated HR Specialists provides professional human resources guidance and support to clients 365 days a year to assist with understanding the ever changing employment laws, handling employee issues, and planning employee development.

Consultations on these topics are provided as needed, either by phone or during an on-site visit to the workplace. Little to no advance scheduling is necessary. Listed below are the most common HR-related topics that our specialists discuss with business owners and managers.

Addressing Absenteeism
Identify root causes of employee absences from work, including habitual lateness. Discuss tools to clarify policies, document facts, and carry out disciplinary action when necessary.

Americans with Disabilities Act (ADA) and ADA Amendments Act (ADAAA)
Review workplace policies and provisions for employees with disabilities. Discuss ways to address disability-related issues and requests for accommodation in the workplace.

Avoiding Workplace Discrimination Claims
Create a plan to help prevent potential claims of discrimination using employee education programs and discipline procedures.

Change Management
Understand key strategies to prepare for organizational changes and care for employee morale.

Dealing with Conflict in the Workplace
Address root causes and effects of employee conflicts in the workplace. Focus on appropriate steps, including employee coaching, counseling, or discipline.

Disciplinary Action Procedures
Properly document and manage employee disciplinary issues. Know procedures for both minor and major types of misconduct.

Employee Performance Reviews
Effectively evaluate and record employee performance data to encourage and reward, or correct behavior. Set goals for the next year.

Genetic Information Nondiscrimination Act (GINA)
GINA prohibits discrimination in employment based on genetic information. Understand the impact of GINA in the workplace and learn how to be compliant regarding genetic information of employees.

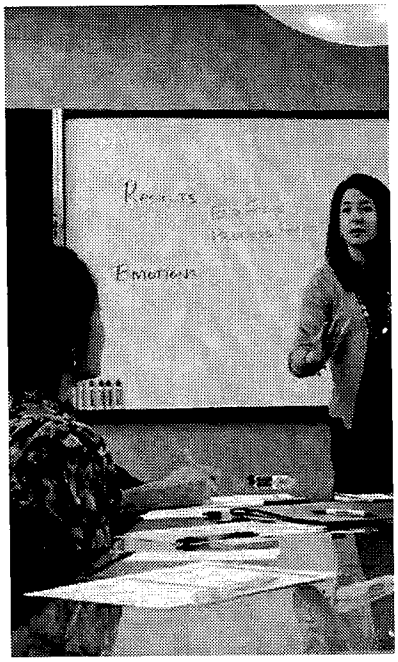
Handling Terminations Effectively
Discuss ways to determine if an employee relationship can be salvaged or if termination is the proper course of action. Review proper document requirements and best practices of employee termination.

Health Insurance Portability and Accountability Act (HIPAA)
Create and comply with policies to protect the confidentiality of protected employee health information. Learn what rights and protections HIPAA provides employees regarding health status and medical coverage.

Motivating Difficult Employees
Develop and implement effective motivation strategies. Understand how to give effective feedback and create valuable documentation.

Understanding the Fair Labor Standards Act (FLSA)
Keep up with changing requirements! Know how and when employees must be paid and when paying overtime wages is required. Follow the state *and* federal regulations to determine either exempt or non-exempt status.

What Managers Need to Know About Benefits-Related Leave (FMLA, TDI & Workers' Compensation)
Learn regulations affecting employee leaves of absence such as family medical, military, disability, or workplace injury leave.



Pricing by Service Plan

For HR Advantage clients: *HR consultations are free of charge.*

For HR Options clients: *HR consultations are billed at $90 per hour.*

SCHEDULE HR CONSULTATIONS

To schedule HR consultations for your worksite, contact your HR Specialist.

(808) 591-4900 (Oahu)
1-800-373-1955 (Neighbor Islands)
training@altres.com