

GENE NEWS

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In April 1953, Watson and Crick discovered the double helix structure of DNA. Fifty years later, in 2003, the Human Genome Project completed a map of the genes in the human genome. To celebrate both of these landmark achievements within the field of genetics, National DNA Day was created on April 25, 2003. Each year, people across the country observe National DNA Day by participating in opportunities to learn more about cutting edge genetics research, speak with genetics professionals, and explore how genetics may impact their own lives.

As part of National DNA Day celebrations, the National Human Genome Research Institute (NHGRI) sponsors DNA Day activities every April. In the past, these have included on-line chatrooms with genetics researchers, conferences, essay competitions, and local experts speaking in classrooms. This year, the Hawai'i Department of Health Genetics Program will host "Hawai'i DNA Activity Day 2010" for selected high school students and their teachers in Hawai'i funded by the NHGRI.

Hawai'i DNA Activity Day will involve about 125 high school students and teachers. Participants will enjoy large-group sessions from our invited speakers:

- The Honolulu Police Department Forensics Unit will describe the forensic testing done locally, including the collection of evidence, DNA testing, and the use of the results in criminal cases.
- Local clinical genetics specialists will discuss various genetic conditions and their treatments. Examples of common genetic conditions, as well as how genetics contributes to common chronic diseases such as diabetes and heart disease, will be discussed. The importance of family history will be highlighted, and participants will learn how to gather family history information.
- The Hawai'i Innocence Project will present case examples of individuals whose convictions were later overturned, based upon DNA evidence. Both national and Hawai'i cases will be discussed, and students will gain insights into how forensics evidence is used in criminal cases.

Participants will also take part in hands-on activities and learning opportunities, including:

- A "scavenger hunt" will allow participants to search for clues amongst various genetics exhibits staffed by local genetics experts.
- Hands-on breakout sessions for smaller groups of students to learn more about particular genetics topics.
- Discussion of ethical dilemmas surrounding human genetics, such as genetic discrimination, genetic testing of minors, and disclosure of genetic test results.
- A presentation of various career opportunities in genetics.

The Hawai'i Genetics Program is looking forward to engaging this group of students and teachers! We hope that this activity will strengthen on-going collaborations and future opportunities for genetics education in our communities.

Questions? For more information, please contact the Hawai'i Genetics Program at (808) 733-9055.



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Ms. Au closed the morning presentations with a discussion of direct-to-consumer genetic testing, an area in which personalized medicine has attempted to enter into “primetime”. The presentations resulted in a lively group discussion addressing the many topics that arose throughout the morning. It was recognized that, although personalized medicine may hold great promise, several issues must first be considered before such medicine can be fully practically incorporated into healthcare.

What you do is very important! You are years ahead in medicine in general. You put on a super conference and more MDs in all fields should come.

~Attendee comment~

The Hawai‘i Department of Health Genetics Program Leads the Community in Two Days of Learning

Day 1: Updates on Personalized Medicine and Cancer Genetics

On September 1, 2009, members of the state public health and healthcare communities attended Genetics In Your Practice 2009, hosted by the Hawai‘i Department of Health Genetics Program. The conference covered two quickly evolving topics in genetics: personalized medicine and cancer genetics.

A Look Into Personalized Medicine: A New Frontier?

The morning session, led by speakers Dr. Kevin Fitzgerald and Sylvia Au, explored the field of personalized medicine. Personalized medicine uses an individual’s personal make-up, including genetics, to create a specialized health care plan unique to that individual. The morning started with an introduction to the topic by Sylvia Au, Hawai‘i State Genetics Coordinator and board certified genetic counselor. Dr. Fitzgerald, a guest speaker from Georgetown University who holds doctorates in both bioethics and molecular genetics, continued the morning session by leading the group through discussions highlighting both the potential for personalized medicine to improve healthcare as well as the many issues that come with such a transition.

Exploring Genetics and Cancer

The afternoon session addressed another important and ever-changing topic in genetics: cancer. This topic was very timely due to the desire to incorporate genetics into the new revision of the state cancer plan this year. Two of the most common hereditary cancers, colon and breast, were discussed. Dr. Fitzgerald kicked off the afternoon with an introduction on the role genetics plays in cancer. This was followed by two board certified genetic counselors from Queen’s Medical Center, Linda Cheng and Jennifer Bojanowski, presenting current issues in breast and colon cancer. Psychosocial issues were explored through stories shared by Arthur Yu and Jennifer Bojanowski. Although both certified genetic counselors, Mr. Yu and Ms. Bojanowski set aside their professional hats to share personal experiences and provide unique insight from a cultural perspective as well as the perspective of living in a family with a history of cancer. Finally, the day closed with an update by Sarah Scollon on the latest recommendations regarding colon cancer genetic testing developed by EGAPP (Evaluation of Genomic Applications in Practice and Prevention), an advisory group that releases evidence based recommendation statements on genetic topics. This update was of special importance given the state Cancer Coalition’s recent focus on colon cancer.



Individuals from various professional backgrounds attended the meeting, including nurses, social workers, students, physicians, and researchers. Even participants who do not see patients in their day-to-day practice gained insight from examples of how genetics plays a role in common chronic disease. When asked if participants planned to use the information gained from the conference, 68% said this was likely or very likely. Seventy-six percent of participants reported they were likely to use the conference resources in their practice. In addition, 88% of participants reported that it was likely or very likely that they would attend a future conference.

Many thanks go out to this year's participants and speakers. It was a great day of knowledge sharing and discussion. We look forward to hosting more genetics conferences in the future.

Day 2: Genetics and Faith Forum

Almost 15 years ago, the first ever "Genetics and Faith" forum was held to discuss the topics that arise when genetics and religious faith intersect. We know that genetics and religion can play a very important role for family members, friends, and communities. The "Genetics and Faith" forum was created to explore this impact and how individual religious beliefs or faith can influence our understanding of, motivations for obtaining, and coping mechanisms involved in dealing with genetic information.

On September 2, 2009, the Hawai'i Genetics Program was pleased to revisit this topic, holding the second "Genetics and Faith" forum. Invitations were sent to faith leaders and medical providers throughout the community. The forum was split into two sessions (day and evening); the day session was geared towards our faith leaders, and the evening session was developed with medical providers in mind.

Although the attendance was modest, the dialogue proved to be lively and engaging. The session was led by our guest speakers: Doctor and Father Kevin FitzGerald (who joined us for a second day) and Janet L. Williams (a board-certified genetic counselor and co-chair of the Evangelical Lutheran Church of America's Genetics Task Force).

We are excited to continue fostering the relationships that were built during this session, and look forward to continuing the conversation about genetics and religion, perhaps in the near future. Thank you to the speakers and all the attendees that made this forum possible. Mahalo.

If you are interested in participating in a future "Genetics and Faith" forum or have questions, please contact the Hawai'i Genetics Program at (808) 733-9055.



WELCOME TO THE COORDINATOR'S CORNER



As you can see from this issue of GeneNews, the Genetics Program staff has been very busy with activities to provide education and raise awareness about genetics. We were also very happy to have the American Society of Human Genetics (ASHG) come to our state for the first time. ASHG brought clinical and research genetics professionals from all over the world to Hawai'i to discuss current and emerging issues in genetics. We heard many favorable comments from our colleagues about making sure to have the conference in Hawai'i again soon.

In the new year we will be continuing to sustain activities to improve access to genetic services for our Neighbor Island families. We will also be working on policy issues with coverage for medical foods and formula and implementing community engagements to discuss opportunities and challenges for participation in genetics research.

Everyone in the Genetics Program wishes you a Happy and Healthy Holiday Season!!



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Hau'oli Makahiki Hou





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From October 20-24th, Hawai'i hosted the annual meeting of the American Society of Human Genetics. Over 6,000 genetics professionals, ranging from laboratory technicians to clinical geneticists, attended this meeting to learn about the newest developments within the field. To kick off this international conference, the Hawai'i Genetics Program sponsored an Open House on October 20th. The Open House focused on showcasing the many genetics activities and projects occurring in Hawai'i. Several local organizations displayed posters, educational materials, or products. These included the Hawai'i Innocence Project, the Queen's Genetics Laboratory, the Department of Health Newborn Screening Program, the University of Hawai'i School of Nursing, Hawai'i Community Genetics, the Hawai'i Genetics Program, and Queen's Comprehensive Genetics Center. The Hawai'i Visitors and Convention Bureau also organized a display offering brochures and information on entertainment, dining, and attractions in Hawai'i.



Attendees from all over the country enjoyed delicious local-style pupus while perusing the displays, speaking to exhibitors, and viewing an informational slideshow about genetic services in Hawai'i. The Open House was a fun and interactive way of sharing the wonderful genetics-related activities occurring within our islands.



Food and Facts at the
Genetics Open House