

\$8M NCI AWARD

UH CANCER CENTER RECEIVES

TO ENHANCE CANCER CARE FOR
HAWAI'I'S UNDERSERVED,
MINORITY & RURAL PATIENTS

STORY ON PAGE 4



UNIVERSITY OF HAWAI'I
CANCER CENTER

Creating a Cancer Clinical Trials Network that is Right for Hawai'i

Patients enrolled on a cancer clinical trial receive the highest quality of care. In the United States, over 80 percent of cancer patients are treated in the community, but over 80 percent of clinical trials participation occurs at academic centers. Why? Many academic centers are only marginally engaged with their local community. Therefore, it's easier to conduct and provide oversight of clinical trials in a single, academic center, where the physicians are most committed to advancing cancer care through clinical research practice primarily in these centers.

But that's not the situation in Hawai'i. The University of Hawai'i Cancer Center has established a clinical trials network that brings the trials directly to the community, where cancer patients are getting their treatment. This network involves nearly 100 oncology providers, multiple health systems and hospitals and over a dozen private practice locations.

A major component of trials offered through this network arise from the Hawai'i Minority/Underserved National Community Oncology Research Program (NCORP). This program is supported by a grant from the National Cancer Institute (NCI) that was just renewed, providing \$8 million over six years to benefit cancer patients in Hawai'i. In addition to these NCI trials, the UH Cancer Center provides access to FDA-approved pharmaceutical trials and numerous investigator-initiated trials developed by UH Cancer Center faculty. This latter group of trials is particularly focused on the cancer problems that affect Hawai'i's ethnically diverse population.

The renewal of the NCORP grant, and before that the Cancer Center Support Grant, were facilitated to a great degree by the exceptional efforts to enroll patients from diverse racial and ethnic backgrounds. Across the U.S., over 90 percent of cancer clinical trial participants are white. Through the UH Cancer Center clinical trials network, over 75 percent are non-white. It is essential to enroll patients from diverse backgrounds to trials in order to know whether a particular new drug or treatment program will work for them. This is a great contribution to the fight against cancer that our patients and providers, our entire 'ohana, deliver.

The UH Cancer Center clinical trials network is a community-facing and community-engaged endeavor contributing to the mission to reduce the burden of care for the people of Hawai'i.

Aloha,



Randall F. Holcombe, MD, MBA
Director



NCI core grant expanded in money and extended in time

The UH Cancer Center currently holds one of only 71 Cancer Center designations awarded by the National Cancer Institute (NCI). Cancer centers continue to achieve scientific excellence by integrating a wide variety of research approaches to study cancer. The NCI has extended the designation of the UH Cancer Center from July 2020 until July 2022 and has also increased funding from \$5.7 million to \$8.4 million.

The funding allows UH Cancer Center researchers to continue conducting studies that seek to reduce the burden of cancer in Hawai'i and the Pacific. Besides supporting population studies and laboratory research, the funding also helps the Cancer Center provide the opportunity for many of Hawai'i's cancer patients to participate in clinical trials. In 2018, more than 3,500 people in the state enrolled in clinical research studies administered by the UH Cancer Center.

Since 1996, the UH Cancer Center has held this NCI designation that has provided many opportunities to continue our mission.

New faculty member looks forward to exciting research opportunities

Lang Wu, PhD, assistant professor, joined the UH Cancer Center in April 2019. Wu's research involves the epidemiological investigation of genetic, molecular, nutritional and lifestyle factors in cancer causation and prognosis. His long-term research goal is to translate the gained knowledge for prevention, risk assessment, early detection and prognosis prediction of human malignancies, especially for prostate and pancreatic cancers.



Wu's research began in basic science, and the influence of an inspirational mentor sparked a passion in him for population science and epidemiology. Before arriving at the UH Cancer Center, Wu's research journey led him to Vanderbilt University Medical Center in Tennessee and Mayo Clinic in Minnesota.

Wu is excited to be here with his family, "Working at the UH Cancer Center allows me access to wonderful resources, such as the Multiethnic Cohort (MEC) Study, and presents the opportunity to work with diverse understudied populations."



Attendance grows for the 4th Annual HERO Appreciation Event

The 4th Annual HERO Appreciation Event was held in April at the Dole Cannery Ballrooms. The Helping to Enhance Research in Oncology (HERO) event honors those who make a significant contribution to cancer research by participating in UH Cancer Center clinical trials.

Over 375 attendees, including for the first time a small number of pediatric, adolescent and young adult clinical trial participants, heard from Randall Holcombe, MD, MBA, UH Cancer Center director and Jessica Rhee, MD, MS, medical director of the Cancer Center's clinical trials office, about the importance of clinical trial participation in advancing cancer treatment outcomes and improving overall survival.

The largely adult audience was moved to hear Wade Kyono, MD, pediatric oncologist at Kapi'olani Medical Center for Women and Children, highlight the challenges presented by cancers that afflict children, adolescents and young adults, as well as the progress in their survival and cures related to clinical trials.

Diane Ono shared her story about her daughter Mari, who was diagnosed with acute lymphocytic leukemia (ALL) as a four-year-old. She decided the best decision was to enroll Mari on a UH Cancer Center coordinated cancer clinical trial. Today, Mari is an accomplished young adult who serves as the corporate communications officer for a local bank.

Summer Internship Program at the UH Cancer Center

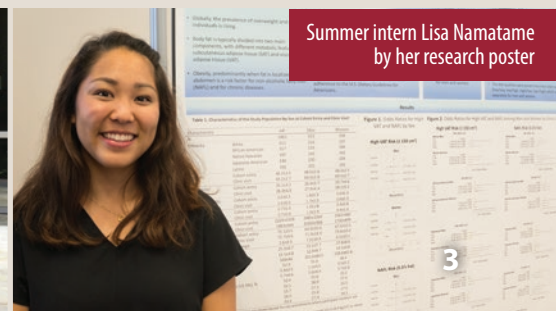
The UH Center Summer Internship program has been providing an opportunity for high school and undergraduate college students to participate in research for over 20 years. The internship program has been supported by various funding sources including the Meiji Yasuda Endowment and the Friends of the UH Cancer Center.

In the past 11 years, over 250 students have been mentored by UH Cancer Center faculty for eight weeks during the summer. This year, out of 89 applicants, 18 were selected through a highly competitive process to be mentored by laboratory and population science faculty members to conduct innovative cancer research.

2019 summer intern, Lisa Namatame, under the mentorship of Gertraude Maskarinec, MD, PhD, explored the "Difference in the Association of Diet Quality with Body Fat Distribution between Men and Women". Namatame currently attends UH Mānoa pursuing a bachelor's degree in Public Health,

and continues to volunteer weekly at the Cancer Center under the supervision of Dr. Maskarinec. Namatame shares her experience as a summer intern:

"I had the honor of becoming one of the UH Cancer Center's 2019 summer interns, and it was an eye-opening experience. I applied to the internship program in order to gain valuable research experience, but I was able to acquire more than I could have ever asked for. I was exposed to a variety of cutting-edge research information sessions, brilliant faculty, engaging activities to stimulate my brain, and a chance to collaborate with the other interns. However, the most important aspect of the internship was that I was able to work independently under the supervision of my mentor so that I could overcome the errors and obstacles that came up to attain and hone my research skills. I am very thankful for the internship because it has taught me to keep feeding my curiosity and it has inspired me to look into a possible career in research."



Summer intern Lisa Namatame by her research poster



Eliezer Van Allen, MD, responds to a question from the audience as Alexander "Scanner" Cheung, MBHL, stands by.

2019 Quest for a Cure event focuses on genetics and cancer

At the 9th Annual Quest for a Cure: Progress in Cancer Research public education event on September 28, an audience of over 100 learned about research being conducted in genetics and cancer. Researchers from the UH Cancer Center, Herbert Yu, MD, PhD, Haining Yang, MD, PhD, and Jessica Rhee, MD, MS, spoke about the relationship between genes and cancers of the liver and breast and the BAP1 gene's predisposition for causing cancers including malignant mesothelioma.

Visiting scientists Eliezer Van Allen, MD, and Alexander "Scanner" Cheung, MBHL, from the Dana-Farber Cancer Institute and The Broad Institute of MIT and Harvard, introduced the Metastatic Prostate Cancer Project and other DNA-related cancer research studies being conducted by The Broad Institute's patient-partnered and -empowered non-profit research organization Count Me In. Both emphasized the need for participation by patients of diverse ethnicities in genetic studies to expand global understanding of how genetic differences are related to cancer causation and patients' responses to prescribed treatments.

Patients who consent to participate in these studies submit their medical information, personal experiences, and tumor and saliva samples for genetic analysis. This information is rapidly processed, de-identified and made available to researchers around the world.

UH CANCER CENTER RECEIVES

\$8M NCI

THE NATIONAL CANCER INSTITUTE (NCI) AWARDED AN \$8 MILLION SIX-YEAR GRANT TO CONTINUE THE NCI COMMUNITY ONCOLOGY RESEARCH PROGRAM (NCORP) AT THE UNIVERSITY OF HAWAII CANCER CENTER, DESIGNED TO PROVIDE THE BEST CANCER CLINICAL TRIALS TO AND INCREASE PARTICIPATION OF HAWAII'S MINORITY, RURAL AND UNDERSERVED PATIENT POPULATIONS.

"The UH Cancer Center, by providing these cancer clinical trials and cancer patient care for both adults and children, gives Hawai'i residents the opportunity for the most effective treatments without having to leave the islands," said Jeffrey Berenberg, MD, NCORP study principal investigator.

The UH Cancer Center is one of only 14 designated NCORP Minority/Underserved Community Sites among the 46 NCORP granted sites, where the patient population is comprised of at least 30 percent racial/ethnic minorities or rural residents. The Cancer Center has been a member of this program since 1994.

"An NCORP Minority/Underserved Community Site designation helps the UH Cancer Center increase cancer clinical trial accruals of underrepresented populations in Hawai'i," said Jared Acoba, MD, NCORP study principal investigator. "Native Hawaiians, Pacific Islanders and Asians represent a small fraction of patients enrolled in cancer clinical trials nationwide. It is critical to enhance access to the highest level of quality cancer care to these patients."

AWARD

TO ENHANCE CANCER CARE FOR HAWAI'I'S UNDERSERVED, MINORITY & RURAL PATIENTS

The UH Cancer Center recently expanded access to clinical trials for Guam patients through its partnership with the Family Health Plan (FHP) Health Center. Through the Cancer Center's affiliation with the Minority/Underserved NCORP, Guam patients are now able to participate in NCI-sponsored cancer clinical trials.

"One of the unique aspects of Hawai'i Minority/Underserved NCORP is that it includes research studies to improve cancer care delivery, an area that the UH Cancer Center, along with its clinical partners, has excelled at since the program's inception,"

RANDALL HOLCOMBE, MD, MBA, UH CANCER CENTER DIRECTOR
AND AN NCORP PRINCIPAL INVESTIGATOR

The Hawai'i Minority/Underserved NCORP provides more than 100 clinical trials of the more than 200 cancer research trials open to both children and adults coordinated by the UH Cancer Center. Most of the NCORP trial activity is conducted in collaboration with members of the UH Cancer Center clinical trials network that includes Hawai'i Pacific Health, The Queen's Health Systems, Kuakini Medical Center, Tripler Army Medical Center and private practice oncology physician offices.



Community oncologists were honored as leaders in accruing patients to clinical trials at the first Annual Cancer Clinical Research UHCC Accrual Leaders (ACCRUAL) Event on April 5.



UH Cancer Center volunteers at start line of Four Seasons Resort Hualālai Run for Hope on September 8.



Attendees signing up for oral cancer screening at the Oral Cancer Awareness event on September 14.



Speakers and moderator for the Prostate Cancer Forum on September 19.



Team members of the Carbone research lab

LATEST MESOTHELIOMA RESEARCH FINDINGS HIGHLIGHTED IN LEADING SCIENTIFIC PUBLICATION

The latest data and a comprehensive overview of mesothelioma research highlighting ways to improve prevention, early detection and treatment of the disease were featured in the September issue of the highly regarded science and medicine peer-reviewed journal, *Ca: A Cancer Journal for Clinicians*, “Mesothelioma: Scientific clues for prevention, diagnosis and therapy”.

The article focuses on the discovery made by UH Cancer Center researcher and the study’s lead author, Michele Carbone, MD, PhD, and collaborators that specific gene mutations cause mesothelioma and other cancers, and how asbestos and the mutation of the BAP1 gene interact in this process.

“ I AM PROUD OF OUR WORLD-RENOUNDED MESOTHELIOMA TEAM IN HAWAII. SINCE I DISCOVERED THAT MESOTHELIOMA IS CAUSED BY GENE AND ENVIRONMENT INTERACTIONS, IT HAS BEEN A GREAT MODEL TO STUDY HOW GENES AND THE ENVIRONMENT INTERACT IN CANCER CAUSATION, AND WE ARE DEVELOPING NEW THERAPIES TO TREAT CANCER WITH BAP1 MUTATIONS ”

– MICHELE CARBONE, MD, PHD

UH Cancer Center and HMSA collaborate for breast cancer study

The UH Cancer Center is working with the Hawai‘i Medical Service Association (HMSA), the largest health plan in the state, to conduct a national first-of-its-kind clinical trial. This research could lead to less anxiety for patients with metastatic breast cancer, improved quality of life for the patients and their families, lower costs for the community, and improve survival outcomes that could result from improving testing for treatment results and disease status in patients.

“The optimal timing and method for disease monitoring of patients with metastatic breast cancer are unclear. However, it is known that more intensive monitoring is not associated with improved survival,” said Jessica Rhee, MD, MS, UH Cancer Center clinical trials office medical director. “In addition, over testing is associated with a worse quality of life including increased anxiety, distress and depression as well as increased costs of care.”

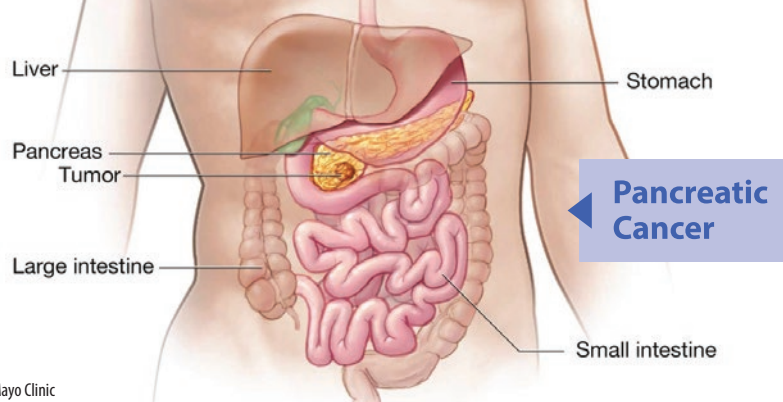
The clinical trial will determine whether tumor marker blood tests every six weeks at routine check-ups can be used to monitor breast cancer disease status. The blood tests would then be used to determine if and when imaging studies (CT scan, PET/CT scan) are needed. Currently, in addition to blood tests, imaging scans are administered at least every three months to monitor treatment for patients with hormone-receptor positive, Her-2 negative metastatic breast cancer.

The goal of this study is to compare the survival outcome of both groups as well as patient-reported anxiety, patient quality of life and cost of care.

“Instead of doing both tests, it may be possible to decrease the frequency of testing, improve a patient’s quality of life, and reduce the cost of care without affecting survival. Blood tests are associated with fewer complications, take less time, create less anxiety, and cost less than body imaging scans,” said Rhee.



Jessica Rhee, MD, MS



Credit: Mayo Clinic

Native Hawaiians and Japanese Americans have higher risk of pancreatic cancer

Native Hawaiians and Japanese Americans have a higher risk than other ethnic/racial groups of developing pancreatic cancer according to new Multiethnic Cohort (MEC) Study findings by UH Cancer Center researchers published in *Cancer Medicine*.

"Pancreatic cancer is one of the deadliest cancers. It only has a five-year survival rate of eight percent. There is no screening test for detecting pancreatic cancer early, when it is most curable. Thus, it is important to identify risk factors that are modifiable such as diet and lifestyle to prevent its occurrence," said Loic Le Marchand, MD, PhD, UH Cancer Center epidemiologist and study co-author.

Pancreatic cancer risk factors, such as family history of the disease, diabetes, obesity, smoking and red meat intake, did not explain the higher risk for Native Hawaiians and Japanese Americans. The study also confirmed previous studies that African Americans are known to be at increased risk for the disease as well.

"A better understanding of the causes of this disease is still needed through new research. Currently, MEC research on pancreatic cancer is focused on conditions related to obesity which may be particularly important risk factors for the disease in the Hawai'i population," said Le Marchand.

Nutrition study receives most cited award

A study by UH Cancer Center nutritionist, Carol Boushey, PhD, MPH, "The connecting health and technology study: a 6-month randomized controlled trial to improve nutrition behaviors using a mobile food record and text messaging support in young adults" was recognized as the most cited randomized controlled trial paper published in 2016 by the *International Journal of Behavioral Nutrition and Physical Activity*. The goal of the study was to improve dietary intakes of fruits and vegetables, and reduce intakes of "junk" foods and sugar-sweetened beverages among young adults (18-30 years old).

"We may be able to translate the findings from this study to develop tailored messages for individuals that may aid with following higher quality diets, which are associated with more healthful body weights," said Boushey, co-investigator of the study.

Carol Boushey,
PhD, MPH



Legislature funds research in liver cancer

State Representative John Mizuno, Chair of the Health and Human Service Committee, authored a new bill (HB654) that will provide funding to the UH Cancer Center to support liver and bile duct cancer research. Mizuno mentioned, "This is by far the most aggressive stride we have ever taken in the fight against liver and bile duct cancers."

The bill was written after seeing studies put out by the Centers for Disease Control and Prevention and the UH Cancer Center. According to these studies, Hawai'i has one of the highest rates of liver cancer in the United States.

Funds from the bill will be used to study the relationship between the environment and genetics. Through researching biomarkers, personal backgrounds and environmental toxins in Hawai'i, UH Cancer Center researchers could find a link that has resulted in the state's high incidence.

After the bill passed, Mizuno added, "today was a great day in our fight against liver and bile duct cancers, and Hawai'i will be the world leader in this endeavor."



Innovations is a community publication of the University of Hawai'i Cancer Center, produced with support from the Friends of the University of Hawai'i Cancer Center. If you have comments or suggestions, please call 808-586-3010 or visit www.uhcancercenter.org.

Randall F. Holcombe, MD, MBA, Director
University of Hawai'i Cancer Center

Sue Sylvester Palumbo, DVM, President
Friends of the University of Hawai'i Cancer Center

Sharon Shigemasa, RN, MS – Editor
Events and Information Coordinator
University of Hawai'i Cancer Center



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Symposium creates awareness of clinical trials program in Guam

In July, the Guam Clinical Trial Symposium was held at the Hotel Nikko Guam to introduce the first cancer clinical trials program that will soon become available to the island's patients, caregivers, and healthcare providers. The National Cancer Institute (NCI) approved the addition of Guam's Family Health Plan (FHP) Health Center to its NCI Community Oncology Research Program in January 2019. The event provided an overview of the clinical trials program, including benefits to providers and their patients.

Cancer is the second leading cause of deaths in Guam. Eighty-one percent of Guam's population consists of Pacific Islanders and Asians. Between 2008-2012, 1,904 new cases of cancer were diagnosed and 736 residents lost their lives to cancer.

Virginia McMahon, a consultant from the UH Cancer Center, stated, "Through clinical trials, patients are able to access new investigational drugs that they would not have the opportunity to get unless they were on a clinical trial. We have tried to make sure that patients in Hawai'i, and now in Guam have the ability to get the latest treatment without

having to travel outside of Guam. That way they can stay at home with their families and get the support they need and get the latest treatment available."

Samir Ambrale, MD, FHP oncologist said, "We have been working for the last three years to develop this partnership. We are excited that we are starting the program here."

Virginia McMahon &
Samir Ambrale, MD, FHP
Health Center

