Hoʻōla Manamana

The UH Cancer Center fosters diversity, health, and knowledge through our mission to reduce the burden of cancer through research, education, patient care, and community outreach, focusing on and embracing the unique and diverse ethnic, cultural, and environmental characteristics of Hawaiʻi and the Pacific.

2023 Annual Report

UNIVERSITY OF HAWAIʻI CANCER CENTER
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Aloha Kākou,

Reflecting on the journey of the University of Hawai‘i Cancer Center in 2023, I am filled with immense gratitude and pride. December 12, 2022, marked the beginning of an incredible tenure for me, one that has been both challenging and immensely rewarding. I am grateful to our faculty, staff, and students for their unwavering dedication to cancer research, patient care, and community impact.

One of our first priorities was to develop a strategic plan to set overall goals and measurable outcomes as well as serve as a guide to determine our future direction. This collective effort will lead to our newly established vision of becoming a global cancer screening, prevention, treatment, and education leader. Mahalo for your commitment to our core values of Ho‘oulu, Kuleana, Laulima, and Pono, which drive our mission forward.

A major highlight this year was the successful submission of the National Cancer Institute (NCI) Cancer Center Support Grant in September. The NCI designation is a prestigious institutional honor that the UH Cancer Center has upheld for nearly 40 years. This accomplishment is a testament to our team’s hard work and commitment to excellence.

Furthermore, establishing a robust clinical research operation is a beacon of progress. In coordination with our Hawai‘i Cancer Consortium partners, our focus was to fortify a solid foundation to support clinical trials, recruit experienced faculty to provide the best care for cancer patients, and expand to include early phase clinical trials, bringing new hope and possibilities in cancer care for Hawai‘i and the Pacific. We expect to open our Early Phase Clinical Research Center in mid-2025.

Several multi-principal investigator grants that address health disparities, equity, and genomics were awarded this year. This paves the way for novel discoveries, enhancing our understanding of cancer and bringing us closer to more effective treatments. These collaborative efforts advance our scientific pursuits and foster a spirit of unity and shared purpose.

The UH Cancer Center remains steadfast in being the best NCI-designated cancer center that profoundly impacts our communities in Hawai‘i and the Pacific. We are making tremendous strides in understanding cancer and developing innovative prevention, diagnosis, and treatment methods thanks to our clinical trial participants, faculty, staff, students, and collaborative partners.

Mahalo to everyone who has been a part of this remarkable journey. Your support, hard work, and belief in our mission have propelled and continue to propel our success. Here’s to many more years of innovation, discovery, and making a difference in the lives of those touched by cancer.

Mālama pono,

Naoto T. Ueno, MD, PhD
DIRECTOR
PROFESSOR (RESEARCHER)
TWO-TIME CANCER SURVIVOR
TOSHIKAI IWASE, MD, PHD
Investigator-Initiated Early Phase Clinical Trial Development and Regulatory Director
Interim Medical Director, Clinical Trials Office
Assistant Professor (Assistant Researcher), Translational and Clinical Research Program
Dr. Iwase completed his MD at Showa University in Tokyo, his PhD at Chiba Graduate School of Medicine in Japan, and his postdoctoral fellowship at The University of Texas MD Anderson Cancer Center. He is currently the Investigator-Initiated Early Phase Clinical Trial Development and Regulatory Director of the Clinical Trials Office. Dr. Iwase’s research focuses on the development of cutting-edge cancer treatments and the identification of novel predictive biomarkers through the execution of early-phase investigator-initiated clinical trials.

JANGSOON (JASON) LEE, PHD
Associate Professor (Associate Researcher), Cancer Biology Program
Dr. Lee is a graduate of Konyang University, South Korea with a PhD in Cancer Biology. His research encompasses two main objectives: pioneering innovative therapeutic approaches for various types of cancer and establishing preclinical research resources tailored to diverse populations including Asian Americans, Native Hawaiians, and Pacific Islanders. To alleviate the distress experienced by cancer patients, Dr. Lee’s vision is to craft patient-focused resources and robust preclinical research frameworks, thereby driving transformative translational and clinical research outcomes across the spectrum of cancer types.

ELIZABETH S. NAKASONE, MD, PHD
Junior Researcher, Cancer Biology Program
Gastrointestinal Medical Oncology, Hawai‘i Pacific Health – Pali Momi Cancer Center
Dr. Nakasone, a physician-scientist born and raised in Hawai‘i, earned her PhD from the Graduate School of Biological Sciences at Cold Spring Harbor Laboratory and her MD from the UH John A. Burns School of Medicine. A medical oncologist, her research is focused on defining the molecular mechanisms that drive cancer initiation, progression, and metastasis, and the development of therapeutic resistance. By understanding these processes, Dr. Nakasone’s objectives are to find novel, preclinically promising therapeutic strategies that are translatable into early phase clinical trials.

XIAOPING WANG, PHD
Associate Professor (Associate Researcher), Cancer Biology Program
Dr. Wang received her PhD in Biochemistry and Molecular Biology from the Institute of Biophysics of Chinese Academy of Sciences. Her research focuses on establishing effective therapeutic interventions for patients with inflammatory breast cancer and triple-negative breast cancer. She is dedicated to determining the role of key signaling pathways in regulating tumorigenesis, inflammation, and the adjacent tumor microenvironment. Additionally, Dr. Wang is studying the molecular and immunological mechanism underlying the racial/ethnic disparity of inflammatory breast cancer in Native Hawaiian and Pacific Islander women.
EVAN WU, MD, PHD
Assistant Professor (Assistant Researcher), Translational and Clinical Research Program
Thoracic Medical Oncology, Hawai‘i Pacific Health – Pali Momi Cancer Center
Dr. Wu earned his PhD in Biostatistics from Johns Hopkins University, his MD from the University of Miami, and his medical oncology fellowship training from the Johns Hopkins School of Medicine. His research focuses on thoracic cancers, including lung cancer and mesothelioma. As AstraZeneca’s medical director of early oncology, he led the development of targeted therapies for lung cancer and several clinical trials on lung cancer, mesothelioma, and cellular therapy for HPV-associated cancers. Dr. Wu strives to identify new therapies to improve the lives of patients with thoracic cancers.

XUEMEI XIE, PHD
Assistant Professor (Assistant Researcher), Cancer Biology Program
Dr. Xie received her PhD in Recombinant Antibody Engineering Technology from the School of Environmental Sciences at the University of Guelph in Canada. Her research focuses on translational breast cancer research. She is currently investigating the contribution of MAPK/JNK signaling to the aggressiveness of triple-negative breast cancer (TNBC), defining the impact of an immunosuppressive tumor microenvironment on TNBC aggressiveness, and responses to chemoimmunotherapy and developing novel targeted combination chemoimmunotherapy for TNBC. Her mission is to establish targeted therapies that will transform the lives of patients suffering from this devastating disease.

HIDEKO YAMAUCHI, MD, FACS
Professor (Researcher), Translational and Clinical Research Program
Breast Surgical Oncology, The Queen’s Medical Center
Dr. Yamauchi received her MD from the Juntendo University School of Medicine in Japan. Her breast cancer research began at the Dana-Farber Cancer Institute, Harvard University, and continued at the Lombardi Cancer Center, Georgetown University. She served as director of the Breast Center at St. Luke’s International Hospital in Japan. Her research interests include breast cancer, survivorship, and genetics. Dr. Yamauchi is eager to collaborate with other researchers to improve breast cancer prognosis, provide better survivorship care, and prevent breast cancer for people in Hawai‘i.

TERUO YAMAUCHI, MD, MSMS
Professor (Researcher), Translational and Clinical Research Program
Breast and Gastrointestinal Medical Oncology, The Queen’s Medical Center
Dr. Yamauchi completed his MD at Kagoshima University in Japan, an internal medicine residency at the UH John A. Burns School of Medicine, and a fellowship in hematology and medical oncology and a Master of Science in Medical Sciences from the Moffitt Cancer Center. He served as the chief of medical oncology at St. Luke’s International Hospital in Japan. Dr. Yamauchi is passionate about breast cancer research and will work with other UH Cancer Center experts to develop personalized treatment plans and find better solutions.
SNAPSHOT OF CANCER IN HAWAI‘I

- Approximately 7,500 Hawai‘i residents are diagnosed with cancer each year.
- In 2021, more than 70,000 Hawai‘i residents were living with cancer.
- More than 2,400 Hawai‘i residents die of cancer each year.
- The average age of diagnosis is 67 years for men and 65 years for women.
- Cancer is the second leading cause of death (after heart disease) in Hawai‘i.

AVERAGE ANNUAL NUMBER OF CANCER CASES AND DEATH, BY COUNTY, HAWAI‘I 2016 - 2020

<table>
<thead>
<tr>
<th>County</th>
<th>Cases (%)</th>
<th>Deaths (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HONOLULU COUNTY</td>
<td>5,165 (68.1%)</td>
<td>1,603 (66.7%)</td>
</tr>
<tr>
<td>KAUAI COUNTY</td>
<td>375 (4.9%)</td>
<td>130 (5.4%)</td>
</tr>
<tr>
<td>MAUI COUNTY</td>
<td>896 (11.8%)</td>
<td>269 (11.2%)</td>
</tr>
<tr>
<td>MAUI COUNTY INCLUDES KALAWAO</td>
<td>896 (11.8%)</td>
<td>269 (11.2%)</td>
</tr>
<tr>
<td>MAUI, MOLOKA‘I, LANA‘I</td>
<td>896 (11.8%)</td>
<td>269 (11.2%)</td>
</tr>
<tr>
<td>HAWAI‘I COUNTY</td>
<td>1,148 (15.1%)</td>
<td>403 (16.7%)</td>
</tr>
</tbody>
</table>

Hawai‘i Tumor Registry, 2023
The UH Cancer Center’s Clinical Trials Office (CTO) team remains committed to enhancing diversity, equity, and inclusion through novel clinical trials that meet the needs of cancer patients in Hawai’i and the Pacific. The collective impact of the CTO is underscored by the success of the Tomosynthesis Mammographic Imaging Screening Trial (TMIST), a breast screening study comparing 2D vs. 3D mammography. As of December 2023, CTO has enrolled 500 patients to the TMIST trial, and through collaboration with community health educators continues to focus on increasing the participation of Native Hawaiian and U.S.-Affiliated Pacific Island communities.

In addition, the partnership with FHP Health Center-Guam continues with the goal of opening and conducting clinical trials at this satellite site. In collaboration with the Hawai’i Cancer Consortium partner sites, CTO successfully launched an early phase clinical trial involving a novel therapeutic agent, which has exceeded enrollment expectations. This demonstrates the need for innovative trials locally, and the importance of opening more trials involving novel agents to ensure that our diverse community has access to the most innovative treatment options closer to home. Lastly, CTO underwent significant changes to revamp the organizational structure and streamline the workflow for study startup, and welcomed new unit leaders and team members to establish a solid foundation to support clinical trials throughout our network.

Our Clinical Trials Office continues to implement improvements to expedite the opening of clinical trials and deliver them promptly, to better serve the community. CTO anticipates exciting developments in the coming years, including the establishment of our Early Phase Clinical Research Center, forming new partnerships locally and abroad, and more. Stay tuned for updates on CTO activities!

**ACTIVE TRIALS IN 2023***

<table>
<thead>
<tr>
<th>PARTICIPANTS RECRUITED IN 2023 BY RESEARCH CATEGORY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology, Observational, and Outcomes Studies:</td>
</tr>
<tr>
<td>2,315</td>
</tr>
<tr>
<td>Therapeutic Trials:</td>
</tr>
<tr>
<td>64</td>
</tr>
</tbody>
</table>

*Active Trials are studies that were open to enrollment during 2023*
FINDING A CAUSE TO ASBESTOS-INDUCED MESOTHELIOMA

Mesothelioma, a highly aggressive cancer primarily affecting the chest and abdomen lining, claims around 3,200 lives annually in the United States and is often caused by asbestos exposure. In Hawai‘i, studies of mesothelioma pathogenesis show that occupational exposure to asbestos of those who work in fields such as general construction, shipyards, first responders, medical services, and hotel workers may be at risk for mesothelioma.

A study led by Haining Yang, MD, PhD and Michele Carbone, MD, PhD revealed the pivotal role of the HMGB1 protein in asbestos-induced mesothelioma. HMGB1, released out of the cells post-asbestos exposure, triggers inflammation, fostering mesothelioma progression. Published in the Proceedings of the National Academy of Sciences, the study identifies mesothelial cells and later macrophages as key HMGB1 producers during different stages of mesothelioma development.

The researchers will now target specific molecules in these different cell types at varying stages of the disease in mice to prevent or reduce the growth of mesothelioma.

“We are very encouraged by these results and hope to develop more effective preventive and therapeutic strategies for those who are at risk of developing mesothelioma because they have been exposed to asbestos,” said Dr. Yang.

PROMISING NEW TREATMENT OPTION FOR LIVER CANCER

The UH Cancer Center is pioneering advancements in liver cancer treatment, the fourth deadliest cancer in Hawai‘i, particularly affecting Native Hawaiian, Filipino, and Japanese men. Currently, immunotherapy serves as the standard of care, yet it falls short of being a definitive cure, often resulting in patient relapse or limited efficacy. UH Cancer Center researcher, Benjamin Green, MD, under the mentorship of Xin Chen, PhD, leads innovative research combining a cancer vaccine with immunotherapy causing the immune system to eradicate tumors in mice with liver cancer. This promising outcome provides the foundation for initiating clinical trials in human patients. Jared Acoba, MD, UH Cancer Center researcher and Director of Research at The Queen’s Medical Center Cancer Center, anticipates this discovery to evolve into a new immunotherapy option.

Funded this year by the Cholangiocarcinoma Foundation, Dr. Green aims to build upon this discovery by developing a cancer vaccine for intrahepatic cholangiocarcinoma, a highly aggressive and resistant form of liver cancer.
ADVANCING BREAST CANCER IMAGING RESEARCH

The 10th biennial International Breast Density & Cancer Risk Assessment Workshop (IBDW), organized and co-chaired by UH Cancer Center researcher John Shepherd, PhD, was held in June in Kailua-Kona, Hawai’i. This workshop assembled experts in screening methods, next-generation imaging, and clinical considerations of breast density. Oral, abstract, and poster presentations featured invited scientists from around the world working on cutting-edge breast density, quantitative image features, and breast cancer risk research. During a special reception, local breast cancer survivors shared their cancer journeys and had open conversations with researchers.

An additional project, the Hawai’i and Pacific Islands Mammography Registry study, initiated a new questionnaire that aims to standardize breast health information collected at mammography clinics around Hawai’i and the U.S.-Affiliated Pacific Islands. This public-impact investigation will allow researchers and doctors to better assess breast cancer risk, as well as develop a risk model more appropriate for Hawai’i and the Pacific’s unique populations in comparison to the continental United States.

BREAST CANCER INCIDENCE DATA FOR HAWAI’I & U.S.-AFFILIATED PACIFIC ISLANDS (USAPI)

- Breast cancer is the most common cancer diagnosed in women in Hawai’i and USAPI.
- Annually, an average of 1,260 women in Hawai’i and an average of 86 women in the USAPI* are diagnosed with breast cancer.

*Mammograms are available to only 2/3 of women in the USAPI.

Cancer at a Glance 2014-2018, Hawai’i Tumor Registry, 2022
Cancer in the U.S.-Affiliated Pacific Islands 2007-2020, Pacific Regional Central Cancer Registry, April 2023
Nurturing Minds through education

The UH Cancer Center provides high school, undergraduate, and graduate students from Hawai‘i and the Pacific with opportunities for transformative research and mentorship experiences with an emphasis on diversity and addressing health disparities. We piloted the High School Cancer Research Program* this summer, expanded the Cancer Research Education, Advancement, Training, and Empowerment (CREATE) program, and continued offering a Clinical Trials Shadowing Program as a Community Health option for first-year medical students of the University of Hawai‘i at Mānoa John A. Burns School of Medicine. This year, we also welcomed our first two CREATE students from Hawai‘i Pacific University.

*Private and public high schools nominated students for the pilot program.

Kū Ola (Upright Living) Program

CREATE Student: Xavier Heidelberg
Mentor: Kevin Cassel, DrPH

“The CREATE program has highlighted the importance of incorporating cultural competency and diversity in research. Through my hands-on experience researching for Dr. Cassel, I have been able to engage with the community and truly gain more sensitivity and understanding while promoting cancer prevention. This experience will enable me to become a better Master of Public Health student and a better physician in the future. I have had the privilege to learn from cultural experts and leaders, build strong relationships with communities, understand the prevention and treatment of disease, support cultural preservation, and help people stay healthy overall.”

Skin Van

CREATE Student: Gabriela Cruz-Mattos
Mentor: Kevin Cassel, DrPH

“The CREATE program has furthered my passion for public health and medicine, teaching me and reinforcing the importance of community engagement, promoting education, and facilitating the involvement of research in multidisciplinary fields of health, as well as serving the larger community. Conducting research at the UH Cancer Center under Dr. Cassel, combined with my training in my Master of Public Health program and, eventually, medical school, will equip me to become a well-rounded physician who understands how community and culture impact health.”
"The UH Cancer Center high school summer program was uniquely invaluable. In five short days, I was mentored by leading professionals in the sector of oncology who possessed rich perspectives and shared a great appreciation for being in their positions. From working with genomics data to practicing small-scale epidemiology, the advancing world of research became increasingly clear to me. As a high school student, the people I’ve met through this program have served as sources of inspiration and are connections that I will cherish for years to come."

ALANNA, CAMPBELL HIGH SCHOOL STUDENT 
High School Cancer Research Program Participant
In 2023, Alan Spangenberg was inspired by his daughter to join a research study, hoping it would help him be a healthy grandfather for years to come. The Healthy Diet and Lifestyle Study II taught Alan how to reduce his portion sizes and provided simple exercises to follow. Having completed the study in August, Alan is pleased with the results of losing over 35 pounds and reducing his chronic knee pain. Moreover, increased energy enables him to play with his grandson and walk a round of golf. He continues to follow the diet and exercise plan. Alan feels good about his study outcomes and recommends joining this clinical trial to lose weight and get in shape.

This study explores whether changes in dietary habits along with a regular physical activity plan can affect the amount of fat stored in the abdomen and the rest of the body with the hope of reducing overall disease risk. This follow-up study to the Healthy Diet and Lifestyle Study has been expanded to 24 weeks and compares two different energy-restrictive diets to reduce intra-abdominal and total body fat, while potentially lowering the risks of certain chronic diseases related to obesity.

Hawai‘i residents have a higher rate of obesity-related diseases than residents of the continental United States. Asians, Native Hawaiians, and Pacific Islanders tend to have a higher risk of carrying excess abdominal body fat which is why they have an increased risk of diabetes, heart disease, and certain cancers compared to other ethnic groups. This study is an excellent opportunity for residents of O‘ahu to learn how to prevent these chronic diseases. For more information about this study, visit www.uhcancercenter.org/hdls2 or call (808) 237-3901.

“Participating in this study has given me back the health and physical well-being that I had a decade ago. Just a few minor changes to my eating habits and some added regular exercise and I feel like I’m ten years younger! I plan to continue to stay with the plan and enjoy a happier, healthier retirement.”

ALAN SPANGENBERG
Healthy Diet and Lifestyle Study II Participant
The University of Hawai‘i Pacific Center for Genome Research (PCGR), one of only two full-scale genome research centers funded in 2023 at minority-serving institutions, aims to better understand the root causes of diseases such as specific types of cancer and heart disorders. The PCGR has two primary research projects. The first aims to better understand what causes selected diseases in racially and ethnically diverse populations. The second will characterize genomic risk factors of lung cancer in Native Hawaiians. In addition, the PCGR will expand the pool of diverse genomic scientists and trainees at UH.

PROJECT LEADERS/LEAD RESEARCHERS:
Lang Wu, PhD
Youping Deng, PhD
Award: $10.9 million

The first Specialized Program of Research Excellence (SPORE) in Hawai‘i will conduct studies that bridge the gap between scientific discoveries and real-world applications. SPORE’s initial focus on disparities in lung and breast cancers will 1) address the extremely high lung cancer mortality rates among Native Hawaiians, develop a culturally sensitive, risk-based lung cancer screening strategy, and compare molecular features of lung tumors across ethnic groups, and 2) target the high breast cancer rates among Native Hawaiians and escalating breast cancer rates observed in Asian Americans. Researchers will evaluate the performance of published risk-prediction models based on mammography images and explore related molecular features of breast tumors.

PROJECT LEADERS/LEAD RESEARCHERS:
Loïc Le Marchand, MD, PhD
Jeffrey Berenberg, MD, MACP
Award: $5.3 million
JARED ACOBA, MD
Steering Committee, NCI Gastrointestinal Colon Task Force

JEFFREY BERENBERG, MD, MACP
NCORP Harry Hynes Award for Outstanding Contributions to Clinical Trials and Community Research

CHRISTA BRAUN-INGLIS, DNP, APRN-RX
NCI Director's Award of Merit for Changing NCI Policy to Expand the Role of Advanced Practice Providers (APPs) in NCI Clinical Trials

MICHELE CARBONE, MD, PHD
Special Advisor on Health and Science to Hawai'i Governor Josh Green, MD
Session Chair, Biomarkers, Genetics/ Bioinformatics Workshop
International Mesothelioma Interest Group

KEVIN CASSEL, DRPH
Steering Committee, American Association for Cancer Research (AACR) Cancer Prevention Working Group

ANDREA FLEIG, PHD, MBA
Executive Editorial Board, Function Journal

TOSHIAKI IWASE, MD, PHD
Guiding Researchers and Advocates to Scientific Partnership (GRASP) Advocate Choice Award presented at the 2023 ASCO Annual Meeting

SCOTT OKAMOTO, PHD, MSW
Prevention Science Award, Society for Prevention Research
Abstract of Distinction, Society for Prevention Research

CARL-WILHELM VOGEL, MD, PHD
Invited Session Chair, 7th Annual Symposium of New Frontiers in Cardiovascular Research
XIAOPING WANG, PHD
12th Annual Zeta Tau Alpha Houston Alumnae Association Fellowship in Inflammatory Breast Cancer

THOMAS WILLS, PHD
 Ranked among top psychology investigators on scientific impact, 2023

LANG WU, PHD
Co-Chair, Diversity Centers for Genome Research Consortium
Associate Editor, Molecular Carcinogenesis
Editorial Board Member, Cancer Epidemiology, Biomarkers & Prevention
Editorial Board Member, BMC Cancer

MASAYOSHI YAMAGUCHI, PHD
Editor-in-Chief, Current Cell Science
Editorial Board Member, Diseases & Research

ONGOING EXTERNAL APPOINTMENTS

LOÏC LE MARCHAND, MD, PHD
Senior Editor, Cancer Epidemiology, Biomarkers & Prevention
(2011 - present)
Member, AACR Cancer Disparities Progress Report (2023 – 2024)
Member, Early Lung Cancer Screening Task Force, Hawaii State Legislature
(2023 – 2024)

MASAYOSHI YAMAGUCHI, PHD
Full Member, Sigma Xi, Scientific Research Honor Society
Advisory Board Member, USERN (Universal Scientific Education and Research Network)
Co-Editor-in-Chief, Current Cancer Drug Targets
Editor, Discover Oncology
Editorial Board Member:
• Cancers
• Nutraceuticals
• Translational Oncology
• Current Molecular Medicine

HAWAI’I TUMOR REGISTRY
Brenda Hernandez, PhD, MPH
Principal Investigator
North American Association for Central Cancer Registries, 2023 Gold Standard for Registry Certification
National Cancer Institute Surveillance, Epidemiology and End Results (SEER) Program, 1st Place Award
A new type of immunotherapy treatment for cancer patients, Chimeric Antigen Receptor (CAR) T-cell therapy, was made available in 2023 through a partnership between the University of Hawai‘i Cancer Center and Hawai‘i Pacific Health (HPH), a Hawai‘i Cancer Consortium member. This new treatment allows some of the sickest cancer patients to stay in Hawai‘i with family and friends for care instead of traveling out of state.

“CAR T-cell therapy is a very innovative and specialized type of cellular immunotherapy where we’re able to use a patient’s own immune cells, genetically modify them, and use those modified cells to fight cancer,” said UH Cancer Center assistant researcher Stephanie Si Lim, MD, a pediatric hematologist/oncologist at Kapi‘olani Medical Center for Women & Children and medical director of the cellular immunotherapy program at HPH. “It is very different from traditional chemotherapy because it targets cancer cells with more precision.”

Dr. Lim has spent the last two-and-a-half years building the cellular immunotherapy program at the UH Cancer Center and HPH. CAR T-cell therapy is now offered to children with B-cell acute lymphoblastic leukemia and adults with B-cell lymphoma and multiple myeloma.

“Through HPH and the UH Cancer Center’s joint efforts, we are excited to offer this important and lifesaving therapy to patients with difficult-to-treat cancers,” Dr. Lim said. “We look forward to our ongoing collaboration to expand the availability of groundbreaking FDA-approved oncology products and clinical trials for our community here in Hawai‘i.”

The Hawai‘i Cancer Consortium is a collaboration of various healthcare partners including Adventist Health Castle, Hawaii Medical Service Association, Hawai‘i Pacific Health, Kuakini Medical Center, The Queen’s Health System, the UH John A. Burns School of Medicine, and the UH Cancer Center.
Christa Braun-Inglis, DNP, APRN-Rx, FNP-BC, AOCNP, UH Cancer Center assistant researcher, received the National Cancer Institute (NCI) Director’s Award for her achievements in expanding the role of Advanced Practice Providers (APPs) in NCI clinical trials. Oncology APPs like Dr. Braun-Inglis have emerged as a pivotal force in cancer care, making invaluable contributions that benefit patients and advance medical science.

Although APPs have an in-depth knowledge of patient symptoms and procedures, they were previously limited to monitoring treatments and unable to enroll patients in clinical trials. Since 2020, Dr. Braun-Inglis has been instrumental in expanding the role of APPs in clinical trials. Initially, she led a nationwide survey of APPs that revealed systemic barriers to clinical trials encompassing policies, role integration, and lack of training on trial processes.

Through the efforts of Dr. Braun-Inglis and her Hawai‘i team, the NCI reshaped their policies in 2021, empowering APPs to enroll patients in supportive care trials, such as those addressing nausea, vomiting, financial navigation, and survivorship. They also have the authority to prescribe medications, significantly streamlining the process and expediting enrollment to clinical trials.

“We have seen quite an increase in APP participation in NCI-sponsored trials both locally and nationally since these changes were made,” said Dr. Braun-Inglis. “I am so grateful to see oncology APPs’ increased participation as I know this will lead to a better quality of life for our cancer patients.”

Since the update in NCI policies, 18 APPs in Hawai‘i have successfully adopted these changes in their work. Dr. Braun-Inglis is currently leading national efforts to integrate the APP working groups and task forces by developing initiatives, resources, and opportunities.
University of Hawai‘i Cancer Center’s Quest for a Cure celebrated our 12th anniversary by returning in person after a three-year hiatus due to the COVID-19 pandemic. This year’s Quest, generously supported by the Friends of the UH Cancer Center, was a three-part series of monthly public education hybrid talks that featured UH Cancer Center researchers, community clinicians, cancer survivors, and caregivers. The goal was to empower those on their cancer journeys with information, resources, and support. Topics included patient empowerment, clinical trials awareness, and prostate cancer updates.

Prostate cancer remains the most common cancer among Hawai‘i’s men, with approximately 900 individuals newly diagnosed each year and 125 deaths. The final Quest for a Cure: Prostate Cancer event addressed the impact of prostate cancer in Hawai‘i and advances in the diagnosis and treatment, including genetics and imaging.

Charles Kim, MD, urologist at Hawai‘i Pacific Health and event moderator, said, “We wanted the event to be inclusive of not only the different disciplines that involve urology but the different institutions in Hawai‘i treating prostate cancer.”

Other physician panelists included Thomas Sanford, MD, urologist at Hawai‘i Pacific Health, Marc Coel, MD, nuclear medicine at The Queen’s Medical Center, and Ryon Nakasone, MD, oncologist at Hawai‘i Oncology, Inc. Also, on the panel were Brenda Hernandez, PhD, MPH, Hawai‘i Tumor Registry Principal Investigator and UH Cancer Center Researcher, and Gary Kim, prostate cancer survivor, who shared his cancer journey. Gary also facilitates the Us TOO/ZERO Prostate Cancer support group, which helps men and their families make informed decisions about prostate cancer.

Quest for a Cure events continue to connect the community with cancer researchers who are doing incredible work here at the UH Cancer Center.
BECOME INVOLVED WITH OUR PATIENT ADVOCACY COUNCIL

The UH Cancer Center’s Patient Advocacy Council (PAC), comprised of passionate cancer survivors, caregivers, clinical trial participants, and advocates, is dedicated to empowering cancer patients in Hawai‘i with knowledge and understanding of clinical trials. In coordination with the UH Cancer Center’s Clinical Trials Office, the PAC assists the UH Cancer Center in reducing the barriers to clinical trials by participating in the Community Research Advisory Board meetings and providing their input as part of the process of opening new trials in Hawai‘i. In addition, PAC members join in community events, and discuss strategies for creating greater public awareness of clinical trials and improving cancer care.

This year, PAC members were invited to join any of the 10 recently established Disease Site Working Groups which consists of community providers who are experts in their field and are engaged in the decision-making and responsibility for trials conducted in our community. These Working Groups review new trials, determining Principal Investigator assignments, establishing and meeting local accrual goals, and assuring that the UH Cancer Center’s clinical trials portfolio meets the needs of those we serve. To join our Patient Advocacy Council, contact Tripit Reevesman at (808) 564-3970 or treevesman@cc.hawaii.edu.

As a cancer survivor, it has been extremely fulfilling to support the UH Cancer Center in bringing more treatment options to our state. The clinical trials under review are explained in a way such that lay advocates like myself can readily understand and provide feedback on them.”

JOANNE HAYASHI
Chair, Patient Advocacy Council
Breast Cancer Survivor
The University of Hawai‘i Cancer Center is dedicated to adopting a Diversity, Equity, and Inclusion (DEI) initiative that mirrors our core identity, embodying the inclusivity and diversity for which Hawai‘i is known. In 2023, we developed a Plan to Enhance Diversity (PED) that extends from this philosophy, aiming to foster a culture of trust, belonging, and equity within our institution. The DEI Office was established with the objective of ensuring that the diverse populations we serve are reflected in the UH Cancer Center’s leadership, faculty, and staff.

Our DEI efforts are led by researchers in our Population Sciences in the Pacific Program: Neal Palafox, MD, MPH, Associate Director; and Joseph Keawe‘aimoku Kaholokula, PhD, Faculty Director. The DEI Internal Advisory Committee, made up of UH Cancer Center faculty and staff representing many backgrounds and cancer research disciplines, provides valuable input and support for the implementation of the PED.

NEWLY ESTABLISHED DIVERSITY, EQUITY, AND INCLUSION OFFICE

THE DEI AIMS:

AIM 1: Establish a Diversity, Equity, and Inclusion Office

AIM 2: Enhance Pipeline for trainees, faculty/staff, and administration

AIM 3: Establish an infrastructure to support early and mid-level researchers

AIM 4: Collect baseline and longitudinal metrics, and ongoing evaluation
PACIFIC ISLAND PARTNERSHIP FOR CANCER HEALTH EQUITY (PIPCHE)

The U54 Pacific Island Partnership for Cancer Health Equity (PIPCHE) is the only National Cancer Institute (NCI) funded, Pacific-based partnership that addresses cancer disparities in the people of Hawai‘i, Guam, and other U.S.-Affiliated Pacific Islands (USAPI). This partnership between the University of Hawai‘i Cancer Center and the University of Guam was first established in 2003 and has continued to explore the reasons behind significant cancer health disparities among Pacific Island populations. PIPCHE is one of only 14 NCI Partnerships to Advance Cancer Health Equity (PACHE), each of which supports cancer research capacity building at minority-serving institutions as well as research that addresses cancer health disparities and their impact on underserved and socio-economically disadvantaged populations. Each year, PIPCHE holds a three-day Scientific and Planning Workshop to foster team building between the two locations and to advance and support the science of team members.

The 2023 workshop celebrated the partnership’s 20-year history by highlighting student and trainee work, community impacts, and current research project impacts. This workshop also provided an opportunity for team members from both sites to begin the planning process for the 2024 grant renewal so that the partnership can continue to address cancer disparities in the USAPI.

PIPCHE IMPACT & ACCOMPLISHMENTS

- Research Papers Published: **186**
- Trainees Trained: **90**
- Funded a New Pilot Cancer Research Project: **$120,000**

PIPCHE Principal Investigators: Brenda Hernandez, PhD, MPH, Neal Palafox, MD, MPH, and University of Guam’s Rachel T. Leon Guerrero, PhD, RDN
The UH Cancer Center is committed to improving the health and well-being of Native Hawaiians, in particular Native Hawaiian men who are at the greatest risk for many chronic diseases, including cancer. The Kū Ola (upright living) program of the UH Cancer Center seeks to reduce the high cancer mortality rates among nā kāne (Native Hawaiian men) by conducting hui kūkākūkā (discussion groups) among men to talk about health. The program’s foundation is in the cultural tradition of the hale mua (men’s house), based on the responses from focus groups conducted with Native Hawaiian men in 2002. Kū Ola engages community partners, including Ke Ola Mamo and the American Cancer Society, among others.

The UH Cancer Center’s Native Hawaiian Community Advisory Board, comprised of key community leaders, oversees the Kū Ola program. This year, Kū Ola received funding support from the Hawai‘i Community Foundation (HCF) to expand the program. Kū Ola held its inaugural hālāwai (community gathering) in Kona in early 2023, inviting representatives of community organizations to learn more about the program, as well as provide input. This generated Native Hawaiian community excitement on Hawai‘i Island resulting in two additional hālāwai and two facilitator trainings for kāne, including kauka (physicians), to conduct the kūkākūkā sessions.

Additionally, HCF funding enhances the Kū Ola program to:

1. Build community capacity;
   b. Offer pilot funding for cancer-related research projects

2. Increase the number of cancer/health-related educational modules; and

3. Increase the number of videos of kupuna kāne (Native Hawaiian male elders) sharing their cultural expertise.

Furthermore, the partnership between UH Cancer Center and Ke Ola Mamo led to a custom-built mobile clinic to provide cancer education, the latest research conducted at the UH Cancer Center, and opportunities to participate in research through community outreach.

Stay tuned for more Kū Ola activities in your community coming in 2024!
**PROGRAM ACCOMPLISHMENTS**

**MODULES:**
- 3 CANCER & 4 CULTURAL

**HĀLĀWAI:**
- 3 GATHERINGS (2 KONA & 1 HILO)

**FACILITATOR TRAINING:**
- 2 CONDUCTED (KONA & HONOLULU)

**TOTAL NUMBER OF HĀLĀWAI AND FACILITATOR TRAINING PARTICIPANTS:** 73

**PILOT PROJECTS:** 2 FUNDED

**CLINICAL RESEARCH PROFESSIONAL CERTIFICATE PROGRAM SCHOLARSHIPS:** 7 AWARDED

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**COMMUNITY OUTREACH**

**REACHING SPECIAL POPULATIONS AT EDUCATIONAL EVENTS IN HAWAI‘I**

<table>
<thead>
<tr>
<th>POPULATIONS REACHED</th>
<th>ASIAN, NATIVE HAWAIIAN/PACIFIC ISLANDER, WHITE, FILIPINO</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOPICS</td>
<td>SCREEN TO SAVE: COLORECTAL CANCER OUTREACH &amp; SCREENING INITIATIVE</td>
</tr>
<tr>
<td></td>
<td>TOTAL ATTENDANCE: 1,438</td>
</tr>
<tr>
<td>TOPICS</td>
<td>HUMAN PAPILLOMAVIRUS (HPV)</td>
</tr>
<tr>
<td></td>
<td>TOTAL ATTENDANCE: 1,184</td>
</tr>
<tr>
<td></td>
<td>316 ATTENDEES COMPLETED PRE/POSTTESTS AND 70 WERE HPV VACCINATED.</td>
</tr>
<tr>
<td>TOPICS</td>
<td>CLINICAL TRIALS TOMOSYNTHESIS MAMMOGRAPHIC IMAGING SCREENING TRIAL (TMIST): MAMMOGRAM</td>
</tr>
<tr>
<td></td>
<td>TOTAL ATTENDANCE: 887</td>
</tr>
<tr>
<td></td>
<td>OF THE 235 ATTENDEES WHO COMPLETED PRE/POSTTESTS, 84 JOINED THE TMIST STUDY.</td>
</tr>
</tbody>
</table>
Who would have imagined that a research study could recruit over 215,000 participants and follow them for over 30 years? The Multiethnic Cohort Study (MEC), a partnership between the UH Cancer Center and the University of Southern California, investigates the causes of cancer and other chronic diseases to determine ways to prevent them. Since 1993, MEC participants of five main ethnic groups at the two sites, including Japanese Americans, Native Hawaiians, African Americans, Latinos, and whites, have completed questionnaires and provided biological specimens. It is the most ethnically diverse cancer cohort in the world.

Utilizing the information provided by the study participants, the MEC has contributed to more than 1,000 scientific articles and has gained national and international recognition in the areas of:

1. **Diet and cancer**: Made recommendations across the world about what constitutes a healthy diet to decrease one’s risk of cancer and other chronic diseases.

2. **Ethnic disparities in cancer rates and survival**: Identified and highlighted existing ethnic differences concerning cancer risk including:
   - the high breast cancer rates of Native Hawaiians;
   - the high rates of colorectal cancer in Japanese Americans;
   - the higher lung cancer risk of African American and Native Hawaiian smokers; and
   - the higher overall cancer mortality in Native Hawaiians.

3. **Cancer susceptibility**: Identified DNA sequence differences that are associated with an increased cancer risk. This knowledge will help identify individuals who would particularly benefit from screening.

4. **Obesity and cancer**: Showed that Japanese, Native Hawaiians, and Latinos have a propensity to store fat deep inside the abdomen. This type of fat carries a greater risk for metabolic diseases, such as diabetes, heart disease, and certain cancers. A diet and lifestyle intervention study is ongoing to identify the best approach to reduce intra-abdominal fat (see page 10 about the Healthy Diet and Lifestyle Study II).

5. **Miscellaneous**: Other scientific contributions have focused on the role of alcohol, coffee, meats, diet quality, dietary supplements, physical activity, hormones, reproductive factors, inflammation, infections, metabolism, sleep, the built environment, social determinants of health, air pollution, gut microbes, and diabetes on the risk of cancer and other chronic diseases. For more information visit www.uhcancercenter.org/mec.

The MEC is an example of the world-class research being conducted at the UH Cancer Center.

MEC Principal Investigators: Lynne Wilkins, DrPH, MS, Loic LeMarchand, MD, PhD, and University of Southern California’s Christopher Haiman, ScD
TWO LIVES LOST
but not forgotten

Naomi Hee was a beloved member of our UH Cancer Center ‘ohana, known for her kind heart. She held various positions in the Population Sciences in the Pacific, Cancer Epidemiology Program. In her most recent role as a lead research survey associate, she helped with patient enrollment in the Healthy Diet and Lifestyle Study II.

Naomi passed in May. Earlier in the year, she recounted, “I have many fond memories of distinguished people who have since left the [UH Cancer] Center ... I will never forget what I experienced and learned from them all. The unique qualities of these people were their honesty, sincerity, humility, and appreciation of what we did at the [UH Cancer] Center. I have never worked anywhere else where I look forward to going to work every day since my 1st day over 20 years ago. Genuine environment. Love it!”

Adanette “Michelle” Weaver worked diligently as a data collection associate with the Hawai‘i Tumor Registry since 2009. She dedicated her life to the medical field, beginning her career as a medical assistant in a community health center working with diabetic patients who were lost to follow-up care. She moved into data collection under the Hawai‘i Birth Defects Program Special Health Needs Branch collecting data on children with congenital disorders.

Michelle’s friends remember her as always shining brightly with charisma, dedication, and a boisterous laugh. She invariably had a positive outlook and would always stop to listen to your story. She was involved with her church, loved movies, swimming, and enjoying time with her family and friends. She passed away in September from cancer.
In a heartwarming display of resilience and determination, dedicated marathon runner and cancer survivor Ed Buck, founder of E.A. Buck Financial Services and the Buck Charitable Foundation, conquered miles on the road and channeled his love for running into a force for good with a donation to the University of Hawai‘i Cancer Center at this year’s Honolulu Marathon.

Ed’s commitment to cancer research began when he was diagnosed with stage 4 melanoma. His journey throughout the treatment process fueled his determination to actively contribute to the fight against this relentless disease.

Having experienced the highs and lows of a cancer diagnosis and treatment, Ed felt a profound sense of gratitude toward the healthcare professionals and advanced treatments that played a crucial role in his recovery. Recognizing the vital role cancer research plays in providing comprehensive care and cutting-edge treatments, Ed expressed his gratitude in a tangible, impactful way.

Ed and the Buck Charitable Foundation’s commitment to giving back took the form of a $25,000 donation presented at the 2023 Honolulu Marathon as a symbol of hope. The Foundation raised the funds by sponsoring 80 runners from the E.A. Buck team. The funds will advance cancer research and patient care, ensuring that others facing the challenges of cancer will have access to the same – or better – high-quality care he received.

Ed’s journey from cancer survivor to philanthropist is a powerful reminder that even in the face of adversity, each of us has the capacity to create positive change. His dedication to the fight against cancer will leave an enduring legacy, reminding us of the profound impact each of us has on the lives of many.
As the first Chamorro Associate Director of Development at the UH Cancer Center, I am making it my mission to share stories of patients who inspire me to build cancer awareness in Hawai‘i and throughout the Pacific – including Guam, my island home.

My first story begins with Andrea Bacos, a wife, mother, and healthcare advocate, determined to share her husband Lance’s last years on earth while battling cancer. My heart ached as she recounted her family’s journey throughout his treatment.

One week before she was due to speak on O‘ahu at our Quest for a Cure event, Andrea lost her home in the August Lahaina wildfires. Despite her adversity, she came after her daughter reminded her that Lance would have wanted her to share the incredible impact a clinical trial had on the quality of his life and why clinical trials are so important.

My second inspiration is Susan Hirano, a stage 4 breast cancer patient paving the way for enhanced cancer care in Hawai‘i. Susan was diagnosed unexpectedly in a diagnostic ultrasound, not a mammogram or breast self-exam.

Susan’s experience has been a second full-time job, of working with her oncologist to apply the latest treatment, of self-advocacy, self-education, and balancing self-empowerment with trust that her oncologist will view her as a person with an individual disease, not just one of thousands with terminal cancer. Most importantly, she is maintaining hope to remain on this planet to raise her son.

My last story is of a young boy with B-cell acute lymphoblastic leukemia, a patient of UH Cancer Center Assistant Researcher Stephanie Si Lim, MD. Hearing his story made me think of my own children and what options I would want for them if they were diagnosed with cancer.

The people of Hawai‘i, Guam, and all islands across the Pacific deserve access to the best cancer treatment and care. Through advanced research and patient care, we can reduce the burden of cancer for future generations. Cancer touches all of us. These stories – of our neighbors and friends – are the reason I fight for a brighter future for our islands.

Andrea Bacos’ daughter Tori and husband Lance

Susan Hirano
The University of Hawai‘i Cancer Center is the only National Cancer Institute-Designated Cancer Center in Hawai‘i and the Pacific. The UH Cancer Center’s mission is to reduce the burden of cancer through research, education, patient care, and community outreach, focusing on and embracing the unique and diverse ethnic, cultural, and environmental characteristics of Hawai‘i and the Pacific. Located in Kaka‘ako, the UH Cancer Center is affiliated with the University of Hawai‘i at Mānoa and directly employs over 300 faculty, staff, and students. The Hawai‘i Cancer Consortium provides access to UH Cancer Center-driven clinical trials and high quality clinical care for over 70% of cancer patients in the State of Hawai‘i.