INNOVATIONS

Bringing you research news from the University of Hawai'i Cancer Center

Second Floor

-

FALL 2021



ANNIVERSARY

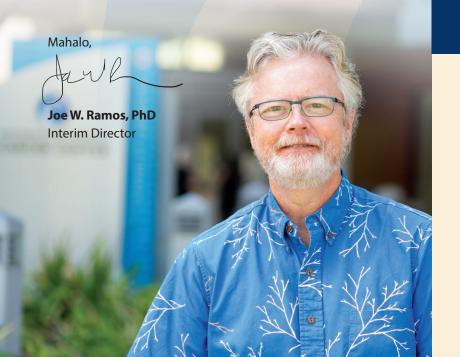
STORY ON PAGE 4



Anniversary of the UH Cancer Center as COVID-19 began a new n August we gathered virtually to commemorate the 50th surge here in the islands. The juxtaposition of the new healthcare challenges brought by COVID-19 with the longstanding ones associated with cancer sharpened and informed this moment of reflection. Many of us have spent the pandemic thinking hard about what brings meaning to our lives, our 'ohana and the joys of being together through our shared challenges. On this backdrop we spent a few hours on a Saturday morning celebrating the work of all our faculty and staff at the Cancer Center. We were honored by the kind words and presence of many who have contributed and supported the Cancer Center over the years. I had the humbling honor of reviewing 50 years of groundbreaking research at the Cancer Center in only 10 minutes. I was only able to hit the highlights—and I still went over time!

In the last few months, we also said goodbye to Dr. Randall Holcombe, who in his five years as Director had a huge impact on the UH Cancer Center and on expanding and improving our clinical research capabilities. He will be sorely missed. It is my honor to serve as Interim Director as the search for a permanent Director proceeds. Our work continues at full speed. One hallmark initiative is the development of an Early Phase Clinical Research Center to provide access to these specialized trials for patients in Hawai'i who have failed or progressed on standard treatments or prior clinical trials. We will break ground at the end of the year. This will be a first for our Hawai'i cancer patients who currently must travel to the mainland for these trials. I look forward to the coming years of exciting new discoveries as the Cancer Center continues its work to end cancer as we know it in Hawai'i and the Pacific.

On behalf of all our faculty and staff, mahalo for your support and for continuing to be part of our UH Cancer Center 'ohana.



Clinical Trials Office welcomes Jonathan Cho, MD, new Medical Director

n April, Jonathan Cho, MD, joined the UH Cancer Center as the new Medical Director of the Clinical Trials Office (CTO), responsible for administration of clinical trials. Dr. Cho has been a faculty member of the UH Cancer Center since 1991, and has been a community medical



Jonathan Cho, MD

oncologist/hematologist, treating cancer and blood disorders for nearly 30 years at Hawai'i Cancer Care.

As a leading oncologist and a strong advocate for clinical trials, Dr. Cho enrolled many patients on UH Cancer Center trials. In fact, he led the UH Cancer Center CTO from 2011 to 2014. In addition to overseeing the CTO, Dr. Cho is charged with exploring ways to increase enrollment onto clinical trials to meet the UH Cancer Center's challenge of the 20BY25 campaign to increase enrollment of newly diagnosed and relapsed cancer patients onto clinical trials by 20% by the year 2025.

"I believe that my past experience makes me a good fit for the role," said Dr. Cho. "The Medical Director will need to work with our community cancer care providers, and I am hopeful that my having been part of this community will facilitate this relationship."

Quest for a Cure goes virtual as Starlight Lecture Series

The Quest for a Cure had previously been an annual event hosted by the University of Hawai'i Cancer Center, as part of its mission to educate the public about cancer research, treatment, and prevention. It is an event for anyone whose life has been touched by cancer and wants to learn more about the disease.

When the COVID pandemic hit, the Quest for a Cure event pivoted to a virtual format and became the Quest Starlight Lecture Series, with evening sessions held on the last Thursday of the month from April through July. Topics included: "Diet, Body Composition

ALOHA 'OE AND MAHALO NUI LOA, DR. HOLCOMBE!

Randall Holcombe, MD, MBA, departed Hawai'i to become the new Director of the University of Vermont Cancer Center on August 1st. He served as Director of the UH Cancer Center from 2016 to 2021.

Dr. Holcombe joined the UH Cancer Center at a critical juncture for the Center which included the impending renewal of the very important National Cancer Institute Cancer Center Support Grant (CCSG) and designation, attempts at reorganization, negative press, and serious financial concerns.

Upon arrival, Dr. Holcombe was warmly received by faculty and staff, who were impressed by his willingness to give up his successful positions at Mount Sinai in New York and relocate to Hawai'i. Over the years, he had been described as intelligent, articulate, and humble in his interactions with faculty and staff, professional colleagues, and community partners and leaders. One faculty member shared that Dr. Holcombe gained their trust and confidence that he was a fair and transparent leader.

In summarizing his legacy as UH Cancer Center Director, Dr. Holcombe stated.



I THINK MY GREATEST IMPACT WAS...TO RENEW AND STRENGTHEN THE FOCUS OF ALL OF THE CANCER CENTER'S RESEARCH ON THE PEOPLE OF HAWAI'I AND THE U.S.-AFFILIATED PACIFIC ISLANDS, INCLUDING POPULATION SCIENCES, CANCER EPIDEMIOLOGY, BASIC CANCER BIOLOGY, CLINICAL AND DISEASE-FOCUSED RESEARCH, AND CANCER PREVENTION.

The UH Cancer Center's renewed focus of addressing the cancer burden and cancer outcome disparities among unique populations, led to innumerable successes under Dr. Holcombe's leadership.

Our gratitude to Dr. Holcombe can best be reflected in our continued future successes in cancer research, education, and community outreach and engagement.

ACCOMPLISHMENTS

RENEWAL OF THE CANCER CENTER SUPPORT GRANT (CCSG),

RECRUITMENT OF NEW MEMBERS TO THE HAWAI'I CANCER CONSORTIUM,

RENEWAL OF THE NCI COMMUNITY ONCOLOGY RESEARCH PROGRAM (NCORP) CLINICAL TRIALS GRANT,

EXPANSION OF THE CLINICAL RESEARCH NETWORK TO GUAM WITH RENEWAL OF THE PACIFIC ISLAND PARTNERSHIP FOR CANCER HEALTH EQUITY (PIPCHE) GRANT,

BALANCING THE CANCER CENTER BUDGET AND RESOLUTION OF ISSUES WITH UH AND COMMUNITY PARTNERS, AND

OBTAINED FUNDING FOR EARLY PHASE CLINICAL RESEARCH CENTER (EPCRC).





IT'S HARD TO BELIEVE THAT THIS YEAR THE UNIVERSITY OF HAWAI'I CANCER CENTER REACHED ITS 50TH ANNIVERSARY AS WELL AS 25 CONTINUOUS YEARS OF NATIONAL CANCER INSTITUTE (NCI) DESIGNATION!

The unrelenting presence of COVID-19 resulted in a scaled down celebration on August 14 to highlight the UH Cancer Center's many significant achievements. Members of the Cancer Center and its valued community partners convened with limited in-person attendance in the UH Cancer Center's Sullivan Conference Center, while the majority of attendees joined by Zoom webinar.

Local media personality and cancer survivor Billy V served as the Master of Ceremonies, and opening and closing blessings were officiated by Kahu Aaron Mahi. In-person and virtual attendees included dignitaries, UH administrators, Cancer Center faculty and staff, community partners, donors, friends, and supporters.

Those who shared remarks included UH President David Lassner, PhD; Governor David Ige, and Lt.

Governor Josh Green, MD; U.S. Congressional members Ed Case, Brian Schatz, and Mazie K. Hirono; NCI Director Norman Sharpless, MD; State Senator Sharon Moriwaki; UH Board of Regents Chair Randy Moore; President and CEO of the Queen's Health Systems, Jill Hoggard Green, PhD, RN, representing the Hawai'i Cancer Consortium; and Mary Piette, wife of founding UH Cancer Center Director, the late Lawrence H. Piette, PhD. Joe W. Ramos, PhD, Interim Director of the UH Cancer Center, eloquently summarized 50 years of the Cancer Center's research achievements.

The 50th Anniversary celebration was supported by generous donations from the Friends of the UH Cancer Center and Royal Kona Coffee.







Top left: Interim Director Joe Ramos highlights the UH Cancer Center's accomplishments of 50 years; **Top right:** Billy V, popular local media personality and cancer survivor, served as emcee; **Bottom right:** A screenshot of some of the local and national Zoom participants; **Bottom center:** Wahine Hula Akala, the "Pink Ladies of Hula," participated in a pilot study to determine if hula had positive biochemical and psychosocial effects on women diagnosed with cancer; **Bottom left:** Interim Director Joe Ramos displays a congratulatory certificate from the Hawai'i State legislature while flanked by Sen. Sharon Moriwaki, UH President David Lassner, and Rep. Greg Takayama.

CREATE Program Supports Research Training of Hawai'i and Guam Students

In spring 2021 four first-year graduate students participated in the inaugural graduate student class of the UH Cancer Center's Cancer Research Education, Advancement, Training, and Empowerment (CREATE) program. In the summer, 16 undergraduate (sophomore and junior) students, attending universities across the nation, comprised the inaugural undergraduate class of the CREATE program.

To qualify for the program, all students must be from Hawai'i or Guam. Up to four first-year graduate students are accepted for either the spring or fall semesters. This fall just one student was recruited for the program, while three students will be hosted in the spring.

The trainees were paired with faculty mentors to work in the UH Cancer Center's Population Sciences in the Pacific or Cancer Biology programs. They received training in the responsible conduct of research, laboratory safety, and human research protection; participated in seminars and journal clubs; prepared manuscripts; and created and presented posters on their research findings.

CREATE is supported by a \$1.35 million grant from the National Institutes of Health over five years, and addresses the overarching goal of enhancing the training of a future workforce to meet biomedical, behavioral, and clinical research needs to lower cancer incidence and mortality in the Pacific.

The CREATE program is led by UH Cancer Center faculty members Gertraud Maskarinec, MD, PhD, Joe W. Ramos, PhD, and Joseph Keawe'aimoku Kaholokula, PhD.

Honoring a friend through interesting, necessary work

"Jenny was my neighbor across the street when we met in 2003," says Elizabeth Wong. "We got a kick out of our last names being the same. Although we were from totally different places—she was from New Zealand and I'm from the U.S.—we were close in age. She was open, friendly and smart." Jenny was diagnosed with breast cancer and died of the disease in 2020.

"She was a great mother and a great wife. Jenny's family was the heart of her life. She loved her dog Macchiato, who was her best friend. She had four daughters who are fabulous people. She was married for more than 40 years. And she was one of my best friends."

In memory of Jennifer Wong, Elizabeth made a donation toward establishing the Hawai'i Pacific Islands Mammographic Registry. The registry compiles breast cancer risk information, such as mammograms and MRIs, from women in screening programs, says John Shepherd, PhD, Interim Deputy Director and Chief Scientific Officer at the UH Cancer Center.

"Hawai'i is behind in understanding breast cancer risk in our specific mix of ethnicities, cultural influences and genetics," he says. "We had no Hawai'i mammography registry or coordination between our medical centers to identify how the risk of breast cancer is unique in Hawai'i."

Early stage research projects called pilot studies, often rely on support from private donors while preliminary data are collected. If the findings are compelling, researchers will be more likely to successfully compete for and be awarded larger federal grants. Elizabeth's gift puts Shepherd's work in position for greater funding later.

Elizabeth knew the project was right for a gift in her friend's honor. "Dr. Shepherd's work is interesting and necessary," she says. "It falls in line with Jenny's story, and she would be happy to be associated with it. She did everything she was supposed to do for treatment of her breast cancer, but after five years, the cancer came back."



BLAZING THE TRAIL FOR ADVANCED PRACTICE PROVIDERS

Advanced practice providers (APP) are nurse practitioners, physician assistants, clinical nurse specialists, or other licensed, non-physician providers, who are involved in the overall care of the patient, managing symptoms, coordinating care, or helping patients maintain a good quality of life. Clinical research is another area in which APPs can also have a significant impact. But there are several barriers preventing APPs from playing a more active role in clinical research, including under-representation on research committees, heavy workloads, lack of opportunity in the work setting for broader involvement in clinical research, and a general lack of knowledge about the trials that are available.

Christa Braun-Inglis, MS, APRN-Rx, FNP-BC, AOCNP, associate researcher and oncology nurse practitioner at the UH Cancer Center, is working to change that environment. As an APP, she holds a hybrid position as a researcher and part-time clinician working with breast cancer patients at Kapi'olani Medical Center for Women and Children.

Braun-Inglis' mission is to inspire, mentor, educate, and help train other oncology APPs who want to assist with clinical research, and have them registered with the National Cancer Institute (NCI). Since 2018, she has worked to recruit 10 oncology APPs in Hawai'i to be registered as non-physician investigators through the NCI which enables them to enroll patients in clinical trials. Braun-Inglis was awarded for her efforts at the UH Cancer Center's 3rd Annual Cancer Clinical Research UHCC Leaders (ACCRUAL) event in 2019. She was also featured in the December

2020 issue of the Association of Community Cancer Centers' journal for "blazing a new path as one of the new oncology certified nurse practitioners in the state of Hawai'i."

Christa Braun-Inglis, MS, APRN-Rx, FNP-BC, AOCNP



MERIT AWARD SUPPORTS RESEARCH ON EPIGENETIC AGING AND COLON CANCER

The National Cancer Institute has granted a Method to Extend Research in Time (MERIT) Award to UH Cancer Center Assistant Professor Alexandra Binder, ScM, ScD. Her funded project focuses on the use of epigenetic age to inform more personalized treatment plans for colon cancer patients to diminish acute and long-term health burdens. Dr. Binder is just the second researcher from the UH Cancer Center to receive a MERIT Award.

There is growing evidence that cancer and its treatment contribute to accelerated aging. "Epigenetic clocks" are a promising means to appraise whether our body is aging faster than others of the same age based on specific patterns of gene regulation. Chemotherapy is a common component of colon cancer treatment that aims to kill cancer cells, but can also harm non-cancer cells and accelerate epigenetic aging. The adverse side effects or toxicities associated with chemotherapy can impact quality of life and contribute to dose reductions and treatment delays that may influence reoccurrence and survival. Chemotherapy-associated toxicities are more likely among patients with involuntary loss of skeletal muscle mass, which is common among colon cancer patients.

Through this study, Dr. Binder and her colleagues will determine whether epigenetic age can be used to identify colon cancer patients at high risk for chemotherapy toxicity. They will further appraise whether a resistance training intervention can reduce the rate of epigenetic aging during chemotherapy treatment to minimize the risk of these outcomes.

STUDY TO EXAMINE THE ROLE OF CYANOTOXINS IN LIVER CANCER

iver cancer is the seventh most common cancer and the third leading cause of cancer deaths globally. To improve outcomes of this disease, UH Cancer Center researcher, Brenda Hernandez, PhD, MPH, is conducting a study examining the possible role of cyanobacteria and the toxins they produce in causing liver damage and liver cancer.

Cyanobacteria or blue-green "algae" are the most common bacteria found naturally in oceans, lakes, rivers, ponds, and other surface waters and in land areas such as forests, tundra, grasslands, and deserts. They include multiple bacterial species that produce toxins that can promote tumor growth in the liver. Humans may be exposed to cyanotoxins through drinking, eating, inhaling, or skin contact with contaminated water or food sources, such as fish and shellfish.

Hawai'i and Guam have among the highest incidence of liver cancers in the U.S. and U.S. territories, with Native Hawaiian and CHamoru men having the highest risk. This study will be conducted in Hawai'i and Guam over a three-year period and will enroll a total of 400 adult male and female participants. University of Guam (UOG) researchers Laura Biggs, PhD and Yvette Paulino, PhD, are collaborators as part of the Pacific Island Partnership for Cancer Health Equity.

To learn more: Phone: (808) 564-5826 or Email: liverhealth@cc.hawaii.edu.



Quest for a Cure goes virtual as Starlight Lecture Series (CONTINUED FROM PAGE 2)

CANCER CENTER NEWS

& Cancer", "Brain Cancer", "Cancer & Diabetes", and "Pancreatic Cancer", presented by speakers from the UH Cancer Center and clinician partners from the oncology community.

The inaugural Starlight Lecture Series were well attended. Popularity of the event grew with multiple requests to continue the series. Therefore, the UH Cancer Center is in the process of planning for future sessions. Please check the Cancer Center's website for upcoming events.

If you missed any of the past lectures, please visit the Cancer Center's website at **uhcancercenter.org/quest** to view the recordings. If you would like to be added to the Center's mailing list, please send an email to Quest@cc.hawaii.edu to receive future invitations.



Speakers for Quest event on "Cancer and Diabetes" via Zoom webinar: Host/Moderator, Dr. Joe Ramos, top right, and speakers Dr. Gertraud Maskarinec, bottom, and Dr. Loic Le Marchand, top left.



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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.

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Improving Quality of Life for Colon Cancer Patients and Caregivers

In 2021, there will be an estimated 150,000 new cases of colorectal cancer diagnosed in the U.S. Colon cancer is the third most common type of cancer in Hawai'i, with an average of 717 new cases diagnosed each year. Caregivers play a vital role in providing supportive care for those diagnosed with cancer. Often people are thrust into the role of caregiver, and may be unprepared to care for a loved one who has been diagnosed with cancer. Will training cancer patients and their caregivers increase skills, enhance care coordination and improve quality of life? This is a question that Kevin Cassel, DrPH, seeks to answer by conducting a research study, "Improving Quality of Life for Colon Cancer Patients and their Caregivers."

This study is currently recruiting 60 recently diagnosed colon cancer patients and their caregivers, who may be a family member or close friend. Study participants will receive a computer tablet preloaded with a training curriculum consisting of nine modules. Experts in oncology, patient navigation, advocacy, clinical trials, supportive care, care coordination, cost management, and resource allocation present information in a Technology, Entertainments and Design Talks or TED Talks, a short-talk

format, averaging 10 to 18 minutes. These educational modules will be rolled out weekly over three months.

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This study is one of the first to examine the role of training patients and their caregivers to improve patients' and caregivers' quality of life, while supporting care management of cancer patients. "We are very fortunate to extend the research initiated by Dr. Noreen Mokuau by updating the methods to find ways to provide support for cancer patients and families," stated Dr. Cassel.



Ho'ōla

WORKING TO FIND THE CURE

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If you'd like to learn more about the Friends and support us with a donation, please visit https://friendsofuhcc.org.

President's Message

Aloha, friends and supporters of the UH Cancer Center!

In my May $Ho'\bar{b}la$ message, I expressed hopes that with the COVID-19 vaccine's availability, we might be seeing the light at the end of the pandemic tunnel. And now we're cautiouly optimistic that the worst is behind us.

For many of us, the pandemic threat and intense arguments surrounding its issues can negatively affect us in mental, emotional, and physical ways. Personally, one of the ways I deal with these negative reactions is to act to make my community a better place. Doing something positive in the face of this threat and dissension helps me feel empowered and fulfilled, even if it doesn't directly relate to the pandemic. Sometimes that means donating, and other times it means giving time and effort, like volunteering to help at an event or serving on a board such as the Friends.

We've had the benefit of member Sheri-Ann Higa's expertise and commitment as our treasurer for several years, and now as she steps down from that position, Mitchell Taira has graciously volunteered to step back into the role. Sound financial management is crucial to maximize our support for the Cancer Center, so we are very grateful to them for their service.

My term as board president will end in December, and we welcome Chris Yasuma into the role. I will still be on the board, and will continue to devote as much time, energy, and resources as I can to support UH Cancer Center and the incredible work it does for our local, national, and global communities.

I'm so grateful to everyone who donates to the Friends, as well as to all who take any action to make our community and world a better place. Like them, I will also continue to look for other opportunities to make a positive difference. For me, the fulfillment that I feel helps offset the helplessness and frustration of the pandemic experience.

Thank you for your actions to support our community, in whatever form they take!

Mahalo,

Monica McLaren

MONICA MCLAREN

President, Friends of the UH Cancer Center

Friends Support Early Phase Clinical Research Center Meditation Room

The University of Hawai'i Cancer Center will soon break ground on the state-of-the-art Early Phase Clinical Research Center (EPCRC), which will provide access to phase 1 clinical trials for cancer patients in Hawai'i. The EPCRC will alleviate the need to travel to the mainland for specialized treatments that are on the cutting edge and are often considered when patients have a particularly challenging form of cancer or when previous treatments have been unsuccessful. These trials will benefit Hawai'i's diverse racial/ethnic populations.

The Friends are very excited about this project as we have seen how challenging it is for patients with advanced disease to travel. Patients incur significant financial hardship to relocate to a mainland city, often for three to four months while receiving treatment on a clinical trial. And to be in a strange place without the loving support of family and friends adds to the physical and emotional hardship in significant ways. This EPCRC will be a win-win for patients and for our community in both's goals to beat cancer.



When the Friends learned of the inclusion of two Meditation Rooms in the EPCRC's design, the idea of a space that supports stress reduction for patients and their families made so much sense to us. The Friends are very pleased to make a meaningful donation to name a Meditation Room in the EPCRC. We hope that the physical, mental, and emotional challenges that patients and their loved ones will face through the clinical trial process can be alleviated by having access to a quiet, centering space that supports meditation and mindfulness. Studies show benefits that include decreased pain, better immune function, less anxiety, and a heightened sense of well-being and happiness, which we hope all patients and their families can experience.

Graduate student receives Friends-Clinical Labs fellowship for lung cancer research

Zitong Gao, an outstanding Molecular Bioscience and Bioengineering PhD candidate at UH Mānoa, has received a three-year fellowship to study lung cancer at the University of Hawai'i Cancer Center. The fellowship, sponsored by the Friends of the UH Cancer Center and Clinical Labs of Hawai'i, was established in 2021 to support a doctoral student in cancer research.

"It is such a big surprise and honor for me to be the first recipient of this fellowship," said Gao.
"Most lung cancer cases are diagnosed at later stages when treatment options are less likely to be curative. I hope my research results can be used to work towards earlier detection of the disease to increase its overall survival rate."

Gao's selection was based on the criteria of topic relevance to cancer prevention or control, stated interest in cancer research, research skills, and mentor evaluation. She has shown high productivity as first author of five of 12 peer-reviewed publications, and great success in converting data into quality research conclusions.



Zitong Gao

"As a nonprofit whose purpose is to support and promote the UH Cancer Center, the Friends is so very pleased to partially underwrite this program, which will lead to impactful research and also foster researcher talent and growth," said Monica McLaren, board president of the Friends of UH Cancer Center. "We are excited to support Zitong Gao's journey and to see how it will lead to better health for us all."

"Clinical Labs of Hawai'i is very proud to partner with the UH Cancer Center to support scientific research in Hawai'i," said Clinical Labs of Hawai'i President Ally Park. "It is important for us all to invest in ourselves, keep our talent in Hawai'i, and promote healthcare and research amongst our unique and diverse population."

During her fellowship, Gao will conduct research on biomarkers with the aim of discovering possible mechanisms in lung cancer development. She hopes to advance strategies for early detection and the prediction of distant metastases.