I want to ensure that no resident of Hawai‘i needs to travel to the mainland to receive the most novel, cutting edge treatments for their cancer.

STORY ON PAGE 6
Aloha kākou,

This is a time of great transition for the UH Cancer Center. It has been an honor to serve as the Interim Director for the UH Cancer Center. At the end of this fiscal year, on June 30, 2016, I stepped down from the post to focus fully upon oversight of the School of Medicine, pressing re-accreditation issues, and larger issues affecting healthcare in Hawai‘i. The School will continue to partner with the Cancer Center in regards to the operations of the Kaka‘ako Campus.

It will be a great pleasure having Dr. Randall Holcombe join the UH Cancer Center team, and lead us forward by renewing the P30 Cancer Center Support Grant and updating the Center’s Business Plan.

It is worthwhile to look back on the accomplishments of the faculty and staff during the last 1.5 years. We have been extremely productive in terms of sustaining federal grants and addressing cancer-related issues in our community. Connections with advocacy groups have been enhanced. We have internally strengthened our Clinical Trials Office and laid the foundation for redefining relationships with clinical community partners.

We have reconstituted our National Cancer Institute (NCI) External Advisory Committee (EAC) and hosted two successful EAC meetings. This foundational work with the NCI has permitted us a one-year extension in our submission of materials for NCI re-designation via the P30 grant process. We have begun streamlining our internal operations for greater efficiency and cost-effectiveness, seeking synergistic opportunities with the School of Medicine, including development of a new model for Kaka‘ako Campus reorganization. We have outlined the larger opportunities for additional fiscal enhancements in an improved business plan for the Cancer Center.

Although we did not receive the funds requested by our Governor and UH President for the Cancer Center in this year’s state budget, we did receive very good media coverage and heightened public support for the incredible value that the Center brings to Hawai‘i. Along the way, we were able to demonstrate that the Center brings $54 million in new revenue to Hawai‘i each year. As we near the arrival of the new Director, we are well poised for scientific, fiscal, and service success.

Mahalo for all you do each day in support of our wonderful mission.

Mahalo,

Jerris R. Hedges, M.D., M.S., M.M.M.

Former Interim Director, University of Hawai‘i Cancer Center
Dean and Professor of Medicine
Barry and Virginia Weinman Endowed Chair
John A. Burns School of Medicine
University of Hawai‘i at Mānoa
Dear Friends,

We celebrated when we heard the news that Dr. Randall Holcombe, a renowned colon cancer expert with an impressive list of accomplishments, had accepted the employment offer from the Board of Regents in early June. Like many of you, we’re now looking forward to welcoming him as he begins his new job as Director of the UH Cancer Center on October 3.

Dr. Holcombe’s appointment marks a new beginning in the life of our Cancer Center and the beginning of a new fundraising effort by the Friends. Since our first board meeting nearly 37 years ago (we were named the Pacific Foundation for Cancer Research back then), we have been committed to supporting and promoting the efforts of the Cancer Center and—just as importantly—responding to and fulfilling the Cancer Center’s need for private funds to supplement federal and state resources.

It is this second part of our mission that has inspired us to launch our new “Friends with Benefits” initiative complete with exciting “perks” attached to each donor level. Be watching for the details that we’ll announce soon.

Meantime, in the same spirit of giving, please consider donating to the Friends through Foodland’s “Give Aloha” annual community matching gifts program throughout the month of September. Using your Maika’i card, you’re invited to make a donation and a portion of it will be matched by Foodland and the Western Union Foundation up to a cumulative total of $249 per person, per organization. The donations will be accepted at checkout at all Foodland, Sack N Save and Foodland Farms stores statewide. The Friends of the UH Cancer Center’s number is 77583.

Please consider making a donation during this special Foodland matching opportunity and/or becoming a “Friend with Benefits” when we formally announce the initiative. In addition to supporting the life-saving work of advancing cures for cancer, you’ll be supporting programs to educate individuals in our community about cancer and the research being conducted by the UH Cancer Center.

Mahalo for your generosity!

Sincerely,

Adelia Chung
President

UH Cancer Center Hosts Cancer Moonshot Summit

The University of Hawai‘i Cancer Center hosted one of hundreds of summits held around the country on June 29 in conjunction with the Cancer Moonshot Summit held in Washington, D.C. The goal of the Cancer Moonshot Initiative is to double the rate of progress in cancer prevention, diagnosis, treatment, and care over the next five years and to ultimately end cancer as we know it.

“The Moonshot cannot be achieved by one person, one organization, one discipline, or even one collective approach,” Vice President Biden said. “Solving the complexities of cancer will require the formation of new alliances to defy the bounds of innovation and accelerate the prevention, diagnosis, treatment, and—ultimately—a cure. It’s going to require millions of Americans speaking up and contributing what they’re able. That’s what the Cancer Moonshot Summit is all about.”

The Cancer Moonshot Summit was aimed at creating action and fostering collaborations around the goals of the Cancer Moonshot Initiative. It was the very first time that stakeholders representing all types of cancers convened under one national charge.

Attendees at summits across the nation were leaders representing the entire cancer community including researchers, doctors, scientists, philanthropists, community oncologists, advocates, patients, and survivors.

Attendees at the Cancer Moonshot Summit raise their hands to show that they know someone affected by cancer.
Joe Ramos Steps Up to Serve as Interim Director

Joe W. Ramos, Ph.D., former director of the UH Cancer Center’s Cancer Biology Program for the past five years, was appointed Interim Associate Director of the UH Cancer Center. He replaced former Interim Associate Director, Patricia Blanchette, M.D., who returned to the John A. Burns School of Medicine as Interim Associate Dean for Medical Education and Academic Affairs. Ramos states, “...I will focus on continuing the good stewardship that Dr. Blanchette established while being proactive in working with the outstanding Cancer Center faculty to ready the Center for a new director and renewal of the NCI designation.”

New Head of Communications for UH Cancer Center

Ana Ohkawa, formerly the UH Cancer Center’s public information officer, has been hired as the new Director of Communications and External Affairs. She will oversee the Center’s communications department and is responsible for establishing and maintaining media relations. She will also create and implement communication plans for internal and external audiences.

Welcome and Congratulations Are in Order

The following individuals recently joined the UH Cancer Center or have had a change in job status.

Jessica (Dusty) Behner, a graduate research assistant in the Cancer Epidemiology Program, works with Thomas Wills, Ph.D., Interim Director of the Cancer Prevention and Control Program. She provides grant support for studies, assists in the conduct of experimental studies, distributes and collects consent and assent forms, assists in coding and processing data, conducts literature reviews, and prepares tables and figures for papers and presentations.

Kumardeep Chaudhary, Ph.D., is a postdoctoral research fellow in Computational Bio Research, who works with researcher Lana Garmire, Ph.D., in the Cancer Epidemiology Program.

Bing Han, M.D., Ph.D., a new junior researcher in the Cancer Biology Program, works for Peiwen Fei, M.D., Ph.D. He is responsible for maintaining the daily operations of her lab, taking charge of research projects under her direction, writing research papers and grant applications, and assisting junior fellows integrate into the field of cellular and molecular biology.

Runqiu Jiang, Ph.D., postdoctoral fellow in Microbiome Metabolomics, works with Wei Jia, Ph.D., in the Metabolomics Shared Resource.

Olivier Poirion, Ph.D., postdoctoral research fellow in Computational Bio Research, works with researcher Lana Garmire, Ph.D., in the Cancer Epidemiology Program.

Pallav Pokhrel, Ph.D., M.P.H., was recently hired into a tenure track position and also promoted to associate researcher (associate professor) in the Cancer Prevention and Control Program. His research focuses on reducing tobacco-related health disparities in Hawai’i and preventing abuse of new and emerging tobacco products.

Charles Rosser, M.D., Ph.D., a urological oncologist and prolific researcher, was recently hired into a tenure-track position. Rosser is the director of the Clinical and Transitional Research Program whose work concentrates on genitourinary cancers. He is the principal investigator for several investigator-initiated clinical trials.

Mira Sharma, administrative officer, provides technical and administrative support for the Cancer Center’s Shared Resources under the direction of Wei Jia, Ph.D. Sharma previously worked as a graduate research assistant at the Center in the Cancer Epidemiology Program.
The UH Cancer Center welcomed 26 exceptional undergraduate and high school students into its 2016 summer internship program, an increase over the 19 interns in 2015. They were selected from a pool of more than 90 applicants to conduct independent research under the guidance of Cancer Center researchers.

Their selection was based on a highly competitive process with screening of their research interests, academic ability, relevant coursework and experiences, and research skills. Preference is given to students who belong to groups under-represented in biomedical science or who are from a disadvantaged background. Nearly 70 percent (13 of 19) of the undergraduates met this criteria. The students were 23 percent Native Hawaiians/Pacific Islanders, 46 percent Filipinos, and 4 percent American Indians/Hispanics, with an average GPA of 3.92.

Each intern was paired with a mentor, who had a similar research interest either in population- or laboratory-based research. In addition to an orientation session and tour of the UH Cancer Center, students received training in the responsible conduct of research, laboratory safety, and/or human research protections, and participated in journal clubs and research seminars. The students completed independent research projects and provided poster presentations of their findings at a poster session at the end of their two month internship in August that was open to the public. The students received compensation for their participation in the program.

The UH Cancer Center Summer Internship Program is supported in part by the National Cancer Institute’s Continuing Umbrella of Research Experiences (CURE) Grant Program and an endowment from the Meiji Yasuda Life Insurance Company.

A Tribute to Congressman Mark Takai

It is with great sadness that the UH Cancer Center notes the death of U.S. Rep. Mark Takai after a battle with pancreatic cancer. Takai was a champion for cancer research and Hawai‘i.

In a message just weeks before his passing, he shared his support for the Cancer Moonshot Summit hosted by the Center.

His message read, “I will never forget receiving the news that I had a tumor in my pancreas. Now that I am fighting my own battle with pancreatic cancer, I am truly fortunate and grateful that there are those who have devoted their lives to finding a cure. Each breakthrough in cancer research leads us one step closer to ending cancer.”

Inspired anew by Congressman Takai’s support while on Capitol Hill, we will never give up the battle to eliminate cancer. We are committed to continue our efforts to find more effective treatments and earlier detection methods for cancers including those of the pancreas.

Every year in Hawai‘i, there are about 225 newly diagnosed cases of pancreatic cancer and some 182 deaths, Hawai‘i Tumor Registry data from 2009-2013.

Mahalo and Aloha, Congressman Takai.

UH Cancer Center Invests in Summer Interns
Q: What is your vision for the UH Cancer Center?

I want the UH Cancer Center to be a jewel among National Cancer Institute-designated cancer centers. We have a tremendous opportunity to understand the intricate mechanisms of cancer development because of the unique ethnic diversity present in Hawai‘i. The UH Cancer Center, as the only NCI-designated cancer center in the Pacific, serves a critical function for the people of Hawai‘i, supporting access to clinical trials, novel cancer prevention programs, and community outreach.

Q: What are some of your first top priorities?

Cancer epidemiology, the study of cancer from a population perspective, including gene-environment interactions that may contribute to cancer and understanding the role of race and ethnicity in cancer development and outcomes, is a great strength of the UH Cancer Center. I want to build on this strength by expanding this program and bringing additional faculty on board. I also want to expand the cancer biology program, which focuses on the basic mechanisms of cancer and also on the potential use of natural products from the Hawai‘i ecosystem for cancer prevention and treatment. The cancer prevention and control program is involved in research into ways to reduce the cancer burden in Hawai‘i and is critical to the mission of the center. Currently, this is a small program but I think it can be expanded significantly, and this will also be a top priority over the next few years.

Q: What can the people of Hawai‘i expect to see more of from the UH Cancer Center?

I envision a significant expansion of the clinical trials portfolio, including novel early phase trials encompassing precision medicine and immunotherapy, and improved access for the people of Hawai‘i to these trials in collaboration with the Hawai‘i Cancer Consortium. I want to ensure that no resident of Hawai‘i needs to travel to the mainland to receive the most novel, cutting edge treatments for their cancer. I also see the Center as a leader in directing cancer research initiatives across the Pacific, expanding on the existing strengths in epidemiology, cancer prevention and natural products research. Finally, with the excitement engendered by advances in harnessing the immune system to fight cancer, we plan to recruit new basic and translational cancer immunology researchers to the Center in order to establish a comprehensive cancer immunotherapy program here in Hawai‘i.

Q: What interested you in taking the Director position at the Center?

I think there is great potential at the UH Cancer Center, and I am excited to come on board to help provide the leadership needed to make this one of the top cancer centers in the country.

Q: What are the benefits of being a practicing doctor and a researcher?

I do feel I have an advantage in this respect. I have directed a basic laboratory research program, been involved in the conduct of and development of cutting edge clinical trials, and established a research program in cancer healthcare delivery science, so I comprehend the academic aspects of cancer research. I also take care of cancer patients so I understand fully the enormous and positive consequences that cancer research can have on individual patients. It is the application of discoveries made from the study of populations, and from experiments in the laboratory, to patients, that exemplifies the tremendous value of a cancer center such as the UH Cancer Center.

Q: What do you most look forward to doing as a new Hawai‘i resident?

My wife and I are looking forward to experiencing the Hawai‘i culture, getting to know its people, and exploring the natural beauty of the islands.
Young Researchers Reap UH Cancer Center Science Fair Awards

Through the generosity of the Friends of the UH Cancer Center, three Cancer Center awards were presented to winners of senior division science projects at the 2016 Hawai‘i State Science and Engineering Fair. The event was held at the Hawai‘i Convention Center on March 28-30.

Judging was performed by Gertraud Maskarinec, M.D., Ph.D., Professor in the Cancer Epidemiology Program at the Cancer Center. Eleven cancer-related projects were judged on their originality, independent thinking, and creativity.

**First Place ($300 award) – Nicholas T. Shaw, Mililani High School, 10th grade.** Shaw exercised some creativity as he sought to determine if the use of social media via Instagram influenced teens at his school to smoke. In the presence of peer pressure, he found that teens who participated in his project were not significantly influenced to take up smoking as a result of steady exposure to enticing smoking images and messaging.

**Second Place ($200 award) – Cedar M. Wilson, Kamehameha School, Kapalama, 11th grade.** Cassiopea xamachana, also known as the upside-down jellyfish, is commonly found in warm parts of the Western Atlantic Ocean, Caribbean Sea, and Gulf of Mexico. Wilson harvested her jellyfish samples off the shores of Waikiki and tested extracts she created from them against a line of human colon cancer cells. The results showed moderate anticancer effects against those cells.

**Third Place ($100 award) – Moana Lily Pinner, Hilo High School, 11th grade.** Pinner’s scientific curiosity was spurred by her father’s recurrent skin cancers of the scalp related to his work as a farmer. She tested extracts that she created from turmeric and ginger, both grown by her father, to determine if either or both showed antioxidant and anticancer effects against melanoma cancer cells, and which was more effective. She found that turmeric and ginger demonstrated antioxidant and anticancer effects. However, turmeric was more effective than ginger in both antioxidant and anticancer effects.

The Clinical Trials Shadowing Program

Rachel Lee and Amy Li, medical students at the UH John A. Burns School of Medicine (JABSOM), recently completed the UH Cancer Center Clinical Trials Shadowing Program as their community health elective. This 12-month program provides first-year students with a glimpse into clinical trials research by working with community oncologists.

Each year since 2003, JABSOM medical students have been introduced to clinical trials as part of the curriculum. Students work on problem-based learning scenarios featuring clinical trials using the National Cancer Institute’s Clinical Trials Education Series: In-Depth Workbook. A survey on students’ baseline knowledge and an introduction to clinical trials are provided by UH Cancer Center’s Prevention and Control Program researcher, Kevin Cassel, Dr.P.H. To date, more than 700 future doctors have been trained to value clinical research and consider clinical trials as an option in patient care.

The Clinical Trials Shadowing Program’s curriculum was developed by members of a class of second-year medical students. These students worked with Cassel to conduct interviews with oncologists, who are members of the Hawai‘i Cancer Consortium, to design the program. The program currently accommodates two medical students each academic year. The three phase curricula includes training on clinical trials infrastructure and process, and rotation at four clinical sites, where students shadow and observe physicians, research staff, and experience the processes involved in clinical trials research.

Lee and Li are the second cohort selected for this program. Li stated, “I value observing the differences between military and civilian hospitals.” “It was an amazing learning experience to see first-hand the enrollment of patients and the many layers of regulatory processes set in place to ensure patient safety,” Lee shared. Both students have committed to mentoring the incoming students selected for the Clinical Trials Shadowing Program.

Jeffrey Berenberg, M.D., Tripler Army Medical Center mentor and UH Cancer Center Co-Medical Director for Clinical and Translational Research Program, stated, “I really enjoy having the students. I appreciate their thirst for knowledge about clinical trials, and how clinical trials shape cancer treatment. I continue to learn from the students as we discuss the various aspects of clinical trials.”
MAUI CLINICAL TRIALS AND UH CANCER CENTER CAPITAL FUND BENEFIT FROM FAMILY GIFT

Led by New Development Officer

Todd Cullison joined the UH Cancer Center as the new Associate Director of Development. His responsibilities include identifying, engaging, and soliciting prospective donors for major and leadership gifts that support the vision of the leadership of the UH Cancer Center. Cullison served since 2006 as executive director and in other positions for Hui o Ko‘olaupoko (HOK), a community-based non-profit watershed management group dedicated to improving water quality through ecosystem restoration and storm water management.

Cullison brings experiences from HOK that include achievement of a non-profit organization status; work with donors and volunteers; awards of grants from federal, state, and private sources; education and outreach for state and local officials; relationships with federal, state, and local permitting agencies.

Supported by UH Foundation Vice President for Development

Rebecca Tseng Smith and her husband Tom Smith Tseng were hired by the University of Hawai‘i Foundation in December 2015 to serve as vice presidents for development and co-directors of the upcoming campaign for UH. Both most recently held appointments at Stanford University.

Smith focuses on the UH health sciences, UH West Oahu and UH Hilo and its seven community colleges across the state. She is based at the Kaka‘ako campus, which includes the UH Cancer Center and the John A. Burns School of Medicine. With Cullison’s many years of experience in the non-profit community in Hawai‘i and Smith’s years of university external relations and fundraising experience, together they stand ready to heighten the community’s philanthropic backing for the Center.

For inquiries and opportunities to donate to the Cancer Center through the UH Foundation, contact Cullison at (808) 356-5757 or email Todd.Cullison@uhfoundation.org.

The Marilyn Moyer Charitable Trust (MMCT) made a $500,000 gift to the UH Cancer Center. The funds will support the Center’s Maui Clinical Trials Endowed Chair Fund and Capital Fund.

“We lost our mother, Marilyn, to cancer in 1988. The same day that my mother died, my daughter Maria Lynn was born. In 2013, 25 years and 11 days later, we lost Maria to cancer. We know firsthand how families will do anything, anything for their loved ones, and that clinical trials of medications offer hope,” said Tim Moyer, son of Marilyn Moyer.

Marilyn and her husband Tom Moyer worked together to build a successful theatre chain reaching into five western states.

Marilyn Moyer first discovered Maui in 1977 and described it as paradise on Earth. She bought a condo at Napili and made many memorable trips to Maui, always inviting friends and family to join her.

After Marilyn’s death, the family business was sold and the MMCT was established in her memory by her husband and her four children: Tom Jr., Colleen, Kimberly and Tim.

“We are grateful for the opportunity to establish a fund for cancer clinical trials on Maui, and delighted with the thought that those members of the community combating cancer will now be able to receive treatment on the little island in the Pacific which had such a special place in our mother’s heart,” said Tom Moyer, Jr.

In recognition of their contribution the 501 conference room at the UH Cancer Center was named the Marilyn Moyer Room.
Eleven-year-old local fifth graders raised more than $4,000 for cancer research at the University of Hawai’i Cancer Center. The three girls are passionate about funding research in honor of relatives who have battled the disease.

The three girls, Kiyera Werny, Devyn Goo, and Kendall Kirton, all students at Punahou School, raised money through a series of bake sales. Last year the girls donated $760 to breast cancer specific research at the Center. Kiyera’s aunt and Devyn’s great grandmother are both breast cancer survivors.

“We were inspired by every brave cancer survivor out there. We hope that one day we will beat cancer entirely and that nobody will ever have to suffer again,” said Kiyera.

The girls are the youngest known donors to the Center. The UH Cancer Center has many dedicated funds for cancer-related research projects such as those focusing on liver, breast, pancreatic, and ovarian cancers.

**FIFTH GRADERS RAISE MORE THAN $4,000 FOR CANCER RESEARCH IN HAWAI’I**

“**We were inspired by every brave cancer survivor out there.**”

KIYERA WERNY

**RESEARCH BRIEFS**

**JAMMIT: NEW MATHEMATICAL SYSTEM PREDICTS BEST TREATMENTS FOR CANCER PATIENTS**

University of Hawai’i Cancer Center researchers developed a computational algorithm to analyze “Big Data” obtained from tumor samples to better understand and treat cancer.

Gordon Okimoto, Ph.D., co-director of the Biostatistics and Informatics Shared Resource at the UH Cancer Center, and collaborators developed the algorithm called the Joint Analysis of Many Matrices by Iteration (JAMMIT). JAMMIT uses advanced mathematics to identify different patterns across multiple molecular data types such as gene expression and genetic mutations that when taken together accurately predict what treatments would be best for a given cancer patient. Okimoto plans on analyzing the data for dozens of more cancers.

“We have figured out a way to mine these data for the benefit of cancer patients.”

Gordon Okimoto
The University of Hawai‘i Cancer Center’s Clinical Trials Office (CTO) honored nearly 100 clinical trial participants like Gwen Ho at its First Annual H.E.R.O. (Helping Enhance Research in Oncology) event on April 16 at the Hawai‘i Prince Hotel.

“It cannot be over-stated how important our clinical trials participants are in the advancement of cancer research,” said Mendy Dunn, CTO clinical trials manager. “Our medical heroes are our patients, who choose to enroll in clinical trials. This event was to recognize those patients that have opted to allow us to continue to grow our knowledge about reducing the burden of cancer for people in Hawai‘i and around the world.”

“I think it’s really neat because when I was on the clinical trial it felt in some ways that I was alone on the journey but to see so many others at this event, that’s just incredible…” said Mari Galiher, clinical trial participant.

Since the UH Cancer Center was founded in 1971, thousands of Hawai‘i residents have participated in Cancer Center-coordinated clinical trials. Currently the Cancer Center is conducting about 150 active national trials of new treatments and technologies for adults and children, following about 1,000 patients, and enrolling about 120 new clinical trials participants each year.

Local residents participating in clinical trials represent on average more than 15 percent of underserved and minority individuals, who have access to the most innovative and latest treatments without having to travel and live on the mainland. Participants are enrolled in the trials through Hawai‘i Cancer Consortium hospital partners and community physician oncology practice groups.

H.E.R.O. Event Honors Clinical Trials Participants

The University of Hawai‘i Cancer Center’s Clinical Trials Office (CTO) honored nearly 100 clinical trial participants like Gwen Ho at its First Annual H.E.R.O. (Helping Enhance Research in Oncology) event on April 16 at the Hawai‘i Prince Hotel.

“I wanted to participate in some volunteer program to help not only myself, but other breast cancer patients,” said Gwen Ho, clinical trial participant.

Loïc Le Marchand, M.D., Ph.D., a professor in the Cancer Epidemiology Program at the University of Hawai‘i Cancer Center, received The 2016 Board of Regents’ (BOR) Medal for Excellence in Research. The medal is awarded by the BOR in recognition of scholarly contributions that expand the boundaries of knowledge and enrich the lives of students and the community. Each year only three UH researchers receive the award.

“I am very grateful to the BOR and UH administration for the award. It is an accolade to the entire cancer epidemiology research group which, over the past 30 years, has included many, extremely dedicated research personnel with one goal – to prevent cancer,” said Dr. Le Marchand.

Dr. Le Marchand has contributed significantly to the field of cancer epidemiology, and was one of the first epidemiologists to study the role of genes and the environment on cancer incidence. His work has been nationally and internationally recognized.

In 2015 he and Laurence Kolonel, M.D., Ph.D., Emeritus Professor in the Office of Public Health Studies and former director of the Cancer Center’s Cancer Epidemiology Program, were named to the Thomson Reuter’s World’s Most Influential Scientific Minds and Highly Cited Researcher lists. They were selected based on having the most highly cited papers among fellow researchers, meaning their peers identified their contributions as being among the most valuable and significant in their respective field.
UH CANCER CENTER RESEARCHERS RECEIVE MORE THAN $5.5 MILLION R01 NCI-GRANTS

University of Hawai‘i Cancer Center researchers received more than $5.5 million in National Cancer Institute (NCI) R01 grants spanning several years for research that includes e-cigarettes and bladder cancer. The grants will help reach the goal of reducing the burden of cancer in Hawai‘i and across the nation through research and improved patient care.

R01 grants provide moderate federal funding of four to five years. They partially support the researchers’ efforts on a distinct, clearly defined, and limited research project. These projects are conducted by one or more investigators in an area of specific interest and experience.

The UH Cancer Center along with only 68 other NCI-designated cancer centers compete successfully every year for 75 to 85 percent of the NCI’s $4.8 billion extramural funds. Cancer Center-affiliated investigators secure an average of $20 million of national grants annually to support cancer research in Hawai‘i.

PALLAV POKHREL, E-CIGARETTE MARKETING RESEARCH

Pallav Pokhrel, Ph.D., M.P.H., associate professor in the Cancer Prevention and Control Program, received a five-year $2.5 million NCI R01 grant to study the impact of e-cigarette marketing on the beliefs, attitudes, and behaviors of young adults (18-29 year olds) in Hawai‘i. The knowledge gained from this study will provide scientific data to support tobacco control policies and tobacco use prevention and treatment efforts in Hawai‘i and across the U.S.

This study will collect surveys and other types of data from more than 2,000 college students in Hawai‘i, including current cigarette smokers, non-smokers, and former smokers every six months over approximately two years.

DR. CHARLES ROSSER, BLADDER CANCER RESEARCH

Charles Rosser, M.D., M.B.A., professor in the Clinical Trials Office and director of the Clinical and Translational Research Program, received a more than $3 million five-year NCI R01 grant to research a urine-based bladder cancer detection test that could determine individuals at risk for the disease. The test could help determine those who may require more invasive evaluation and tests, and reduce the need for large numbers of patients to undergo uncomfortable and expensive examinations. The test is expected to be more reliable and accurate than other tests in patients, who have a history of bladder cancer and are on lifetime tumor surveillance, as well as in patients with obvious blood in their urine.

LANA GARMIRE USES “BIG DATA” TO DISCOVER POTENTIAL NEW CANCER BIOMARKERS

University of Hawai‘i Cancer Center researchers used “Big Data” to discover potential cancer biomarkers, a panel of six long intergenic non-coding RNAs (lincRNAs), for the diagnosis of all types of cancers including lung, breast, prostate, liver, and ovarian cancers.

“These biomarkers are highly accurate and robust, up to 97 percent, and could be developed into an early screening test for all types of cancers. We find that early detection and prevention is key for the survival and quality of life of cancer patients. This could benefit patients in Hawai‘i and around the world,” said Lana Garmire, Ph.D., an assistant professor in the Cancer Epidemiology Program at the UH Cancer Center.

Garmire, a translational bioinformatics expert, used a powerful data mining approach to search through thousands of cancer organ tumor samples and large data sets to find the panel of lincRNAs.

Her findings, published in EBiomedicine, highlight lincRNas as the most recently discovered new class of RNA molecules. Researchers found the molecules to be excellent candidates for cancer biomarkers.

“We have worked on this study for the last two years, and are on the verge of discovering something very useful. Thanks to the High Performance Computing (HPC) facility at UH Mānoa, we have been using a Big Data analytics approach to start our hypothesis with massive data evidence before validating it in the lab,” said Garmire.

The panel of biomarkers has been approved as a provisional patent.
**QUEST ANNOUNCEMENT**

“Fighting Cancer at the Front Lines: Prevention and Early Detection”

*Presented by the University of Hawai‘i Cancer Center at the 6th Annual Quest for a Cure: Progress in Cancer Research*

**Saturday, September 17, 2016**

9:00 a.m. – 12:35 p.m.

University of Hawai‘i Cancer Center
Sullivan Conference Center
701 Ilalo Street, Honolulu, HI 96813

*A FREE PUBLIC EDUCATION EVENT*

Quest is for anyone who has been touched by and wants to learn more about cancer.

Featured speakers will include:
- **Carol Boushey, Ph.D.** – the relationship between diet and cancer
- **Terrilee Burnett, Ph.D.** – hereditary cancers
- **Lee Buenconsejo-Lum, M.D.** – Human Papilloma Virus (HPV)-related cancers
- **Kurt Osaki** – my personal journey with Lynch Syndrome

For more information, visit www.uhcancercenter.org

For those without internet access, call the 2016 Quest Information Hotline at (808) 356-5770.