



UNIVERSITY OF HAWAI'I

CANCER CENTER

Update on UH Cancer Center

January 22, 2020

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Director



A Cancer Center Designated by the
National Cancer Institute



Outline

- Updates from the Director
 - UH Cancer Center clinical trials for Hawai'i
 - Community outreach and engagement activities
 - Recent UH Cancer Center discoveries with impact for the people of Hawai'i
 - Why UH Cancer Center's research is unique among all NCI cancer centers and how it is specifically focused on our unique population
- Input from community stakeholders
- Question and answer



Mission of UH Cancer Center

To reduce the burden of cancer through research, education, patient care and community outreach with an emphasis on the ***unique ethnic, cultural and environmental characteristics of Hawai'i and the Pacific.***

UH Cancer Center Timeline



Piette
1974



Issell
1988



Vogel
1999



Carbone
2009



Holcombe
2016



1970

1980

1990

2000

2010

2020

1973
Hawai'i Tumor
Registry in SEER

1981
UH BOR establishes as
Organized Research
Unit

1993
Multiethnic
Cohort

2006
Cig Tax

2013
Kaka'ako
Site Opens



1974-1985
NCI Designation
(P30 CCSG)

1996-present
NCI Designation
(P30 CCSG)

2010
Hawai'i Cancer
Consortium

1971
Cancer Center
Established

1979
NCI Building Grant
Lauhala Site



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HAWAII PACIFIC HEALTH
Kapi'olani • Pali Momi • Straub • Wilcox

Kuakini Medical Center
A Subsidiary of Kuakini Health System





NCI Designation

“NCI Cancer Centers represent the top 4% of Cancer Centers in the Country” - NCI

What Does NCI Designation Mean For Hawai‘i?

As the only NCI-designated center in the State of Hawai‘i, the UH Cancer Center provides unique opportunities for research and patient care.

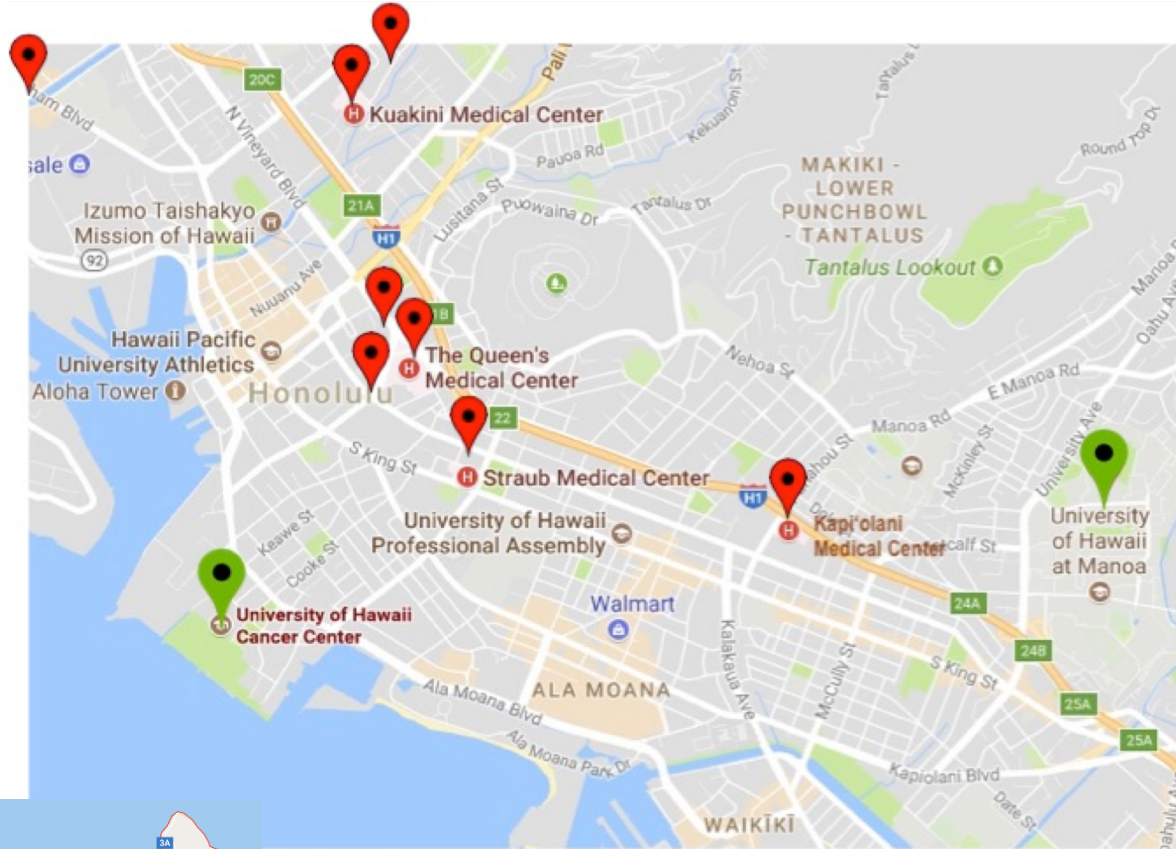
The designation distinguishes the UH Cancer Center as one of the best in the nation

- NCI designated 1996
- The designation facilitates the recruitment of productive faculty whose extramural grants enhance the research portfolio of the University and provides a substantial stimulus for the local economy.
- Development of new approaches for cancer prevention and treatment available to patients in Hawai‘i.
- Benefits Hawai‘i cancer patients through research programs and outreach focused on the specific cancer needs of our state.
- Awarded based on quality and depth of cancer research, an ability to provide an infrastructure to conduct life-saving clinical research trials, and a center’s capabilities for community outreach and education.

UH Cancer Center Clinical Trials for Hawai'i



Clinical Trials Infrastructure



No University-based hospital or ambulatory care facility

Clinical trials **network** is community-facing

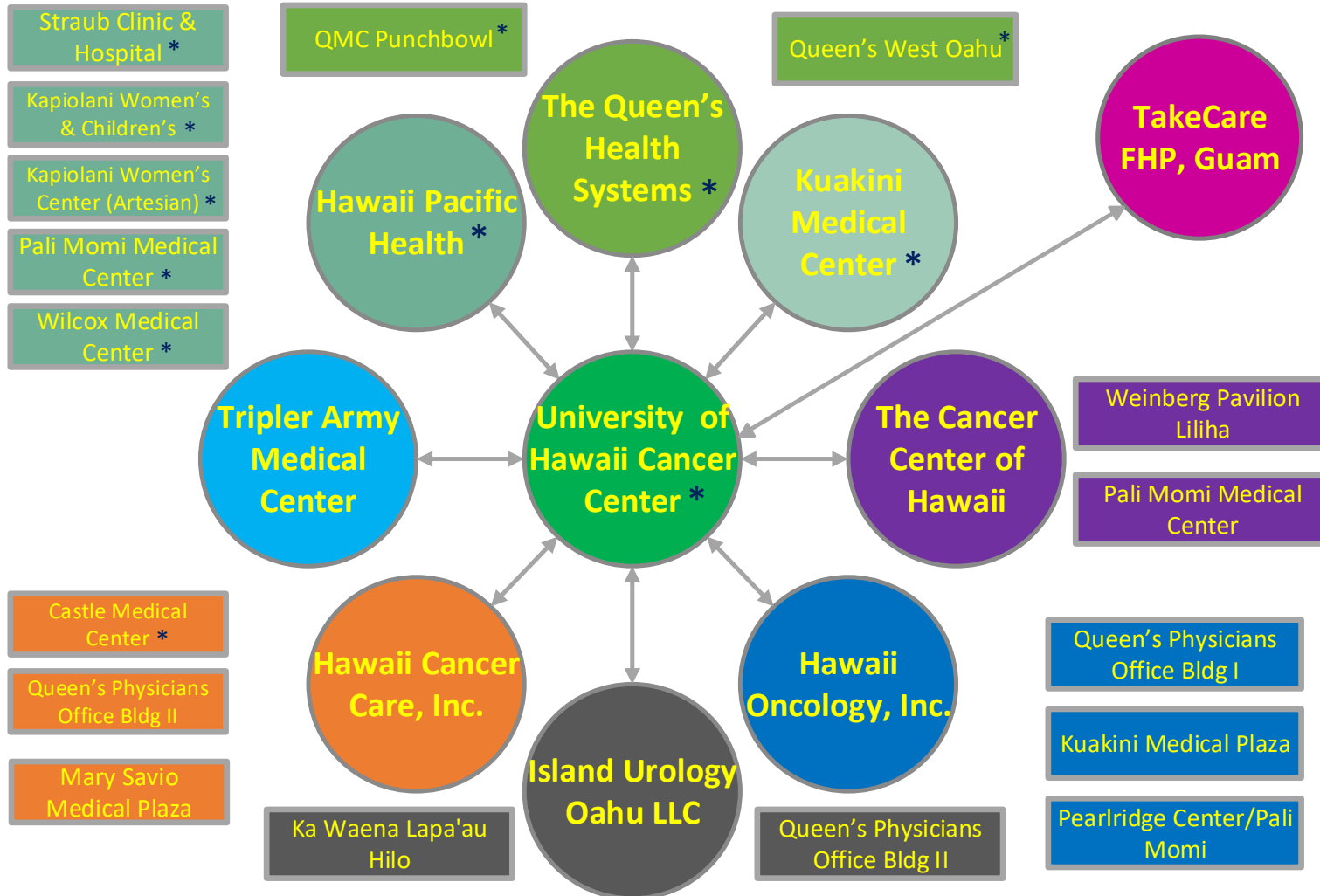
Hawai'i Cancer Consortium (HCC) is a component of the larger clinical trials network

UH Cancer Center provides access to clinical trials for over 2/3 of cancer patients in the State

UH Cancer Center provides oversight and quality assurance for clinical trials for all sites within the network



Complexity of Clinical Trials Network



21 Clinical sites
62 MD/DO Investigators
8 APRN investigators

* Hawai'i Cancer Consortium, also includes:

- JABSOM
- HMSA
- Castle Medical Center



Clinical Research Structure Opportunities

Unified clinical trial management system for the majority of cancer trial participants in the State

Standardized protocol review and monitoring, and quality assurance, through network-accepted, UHCC-directed SOPs, protocol review and monitoring system and quality assurance and safety monitoring

Protocols are delivered to the community where the majority of adult cancer care is delivered

At any one time, UH Cancer Center supports between 100-150 different clinical trials for patients here in Hawai'i



Services provided by UH Cancer Ctr.

- Study coordination management
- Regulatory management
- Contracting services
- Technology and IT reporting services
- Training and Education



Patients enrolled on UH Cancer Center clinical trials 2017 – 2019

Accrual in UHCC network	
Accrual Year	<u>Interventional</u> Treatment, Diagnostic and Supportive Care Studies
2017	401
2018	404
2019	516
Total	1,322

Including Observational, Epidemiology and Outcome studies, **11,778 patients in Hawai'i** have enrolled onto UH Cancer Center clinical studies since 2017.



Accrual: Minorities and Women

Interventional Trials

Enrollment of Minorities and Women to Interventional Trials			
1/1/2019-10/31/19	Hawai'i Cancer Population %	Therapeutic %	Interventional, Non-Therapeutic %
Race			
White	32.3	27.3	27.6
Native Hawaiian	15.1	11.1	28.5
Asian	44.4	46.5	30.9
Japanese/Okinawan	24.0	26.3	15.8
Filipino	14.7	3.0	5.3
Chinese/Taiwanese	5.7	6.1	4.6
Other Asian		11.1	5.3
Black	1.0	1.0	3.4
Other	7.1	10.1	4.1
≥ 2 races		3.4	5.3
Total	100	100	100
Gender			
Female	50.0	47.5	80.6
Male	50.0	52.5	19.4
Unknown		0	0
Total	100	100	100

Non-white minorities accrual:

- 72% all interventional trials

Native Hawaiian accrual:

- 24% of all interventional trials

Female accrual:

- 73% all interventional trials



Why clinical trials in Hawai'i are so important

- The UH Cancer Center is the only NCI-designated center to enroll such a high proportion of Asian and Native Hawaiian patients to clinical trials – UH Cancer Center's input helps define whether new treatments are effective ***for the Hawai'i population.***



National Recognition of UH Cancer Center Accomplishments - 2019

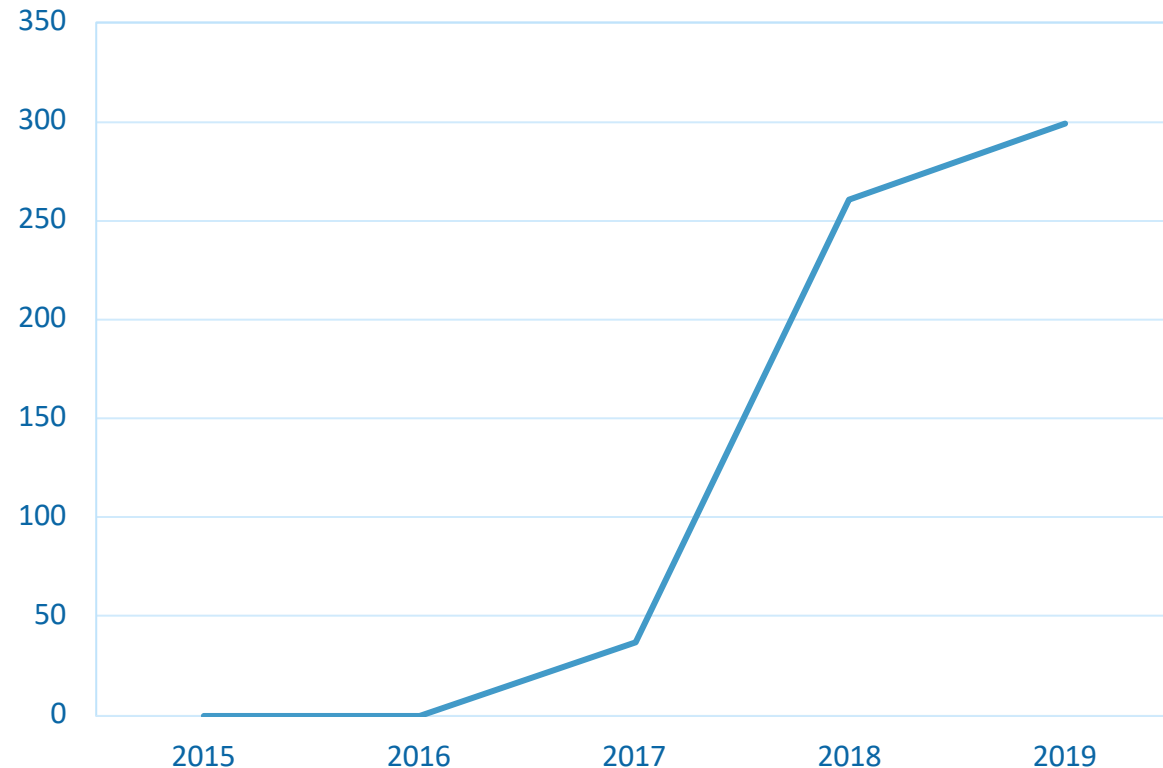
- TMIST – recognized for exceptional enrollment and enrollment of minority women
 - Specific outreach to Micronesian and Native Hawaiian populations
 - Team effort: Cassel, Rhee, Berenberg, Wakuk, Capps, Shirley Cheng
 - Consent translations, health fairs, community events, church gatherings, targeted educational sessions
 - Coordinator, Shirley Cheng, interviewed for Jan 2020 TMIST Quarterly Newsletter
- Breast cancer decision aide (A231701CD)
 - Recognition for exceptional enrollment (first and highest)
 - CCDR coordinator, Courtney Chun, invited to contribute article for Dec 2019 Alliance Newsletter



UH Cancer Center is a national leader in cancer care delivery research

- CCDR enrollment
 - National leader for NCORP studies
 - Numerous investigator initiated trials focused on Care Coordination
 - New opportunities for partnership with HMSA

CCDR Accrual



UH Cancer Center Community Outreach and Engagement Activities



Community Events

- Multiple events for the general and healthcare related community are held each year
- In addition to those listed on the following slides, ongoing outreach to community groups focused on cancer education, prevention and wellbeing occur.
- One ongoing educational campaign is the 20BY25 campaign to educate the community about the value of cancer clinical trials. This efforts also includes all of the oncology providers within the UH Cancer Center network



Examples of Community Events-2019

Date	Event Title	Audience Description
December 11, 2019 December 4, 2019	Hawaii Comprehensive Cancer Coalition Annual Summit UH Med Lab Tech Program Students	HI cancer control stakeholders statewide Students
November 24, 2019 November 21, 2019 November 21, 2019 November 20, 2019 November 16, 2019 November 7, 2019	Tour for BYU Scientia Club Four Seasons Resort at Ko Olina Wellness Fair Four Seasons Employee Health and Wellness Fair QMC Women's Health Center Staff Hawaii Society of Clinical Oncology Patient Advisory Committee Meeting	Undergraduate & graduate Students majoring in the sciences at BYU resort employees Employees of Four Seasons/public Clinical office staff Oncology providers PAC
November 1, 2019	Tour for UH west Oahu undergraduate students	Undergraduate students & advisor from cancer biology program Participating teams comprised of breast ca. survivors, their families & friends, individuals, the general public, healthcare members, volunteers, including the UH Cancer Center representatives from the Native Hawaiian community
October 26, 2019 October 24, 2019 October 19, 2019	ACS Making Strides Against Breast Cancer Native Hawaiian Advisory Board mtg Facility tour for JABSOM Mini-Medical School on Healthy Aging attendees/possible UHCC donors	Attendees are invited guests to Mini-Medical School Fall session who are also donors to JABSOM & UHCC Participating teams comprised of breast ca. survivors, their families & friends, individuals, the general public, healthcare members, volunteers, including the UH Cancer Center
October 13, 2019	2019 Komen Hawaii Race for the Cure	Representatives from USAPI research institutions and Samoa governance
October 2, 2019 September 28, 2019	INSPIRE Research Symposium Quest for a Cure: Progress in Cancer Research - "Your Genes and Cancer"	General public, health care personnel, students



Examples of Community Events-2019

Date	Event Title	Audience Description
September 19, 2019	6th Annual Prostate Cancer Forum Meet & Greet Honolulu HPD Dist. 1 with UH Cancer Center	survivors, caregivers, general public
September 12, 2019	& JABSOM faculty & staff	UHCC & JABSOM faculty & staff
September 7, 2019	No Ke Ola Pono o Na Kane Training	Native Hawaiian men, physicians, community leaders Cancer researchers & their families, pharmaceutical vendors & their families, general public, volunteers, Four Seasons staff, volunteers & their families
September 6, 2019	Four Seasons Resort at Hualalai Run for Hope Weekend	JABSOM 1st year students
August 23, 2019	JABSOM clinical trials orientation	Members of JABSOM, UH Cancer Center, PIHOA, US Pacific
August 6, 2019	Finding Sustainable Healthcare Solutions for Oceania	Command military health installations healthcare, government, academic, non-profit, and community organizations
July 31, 2019	Healthy Hawaii Strategic Plan Kick-off meeting	High school students in PCHCC program in grades 9 thru 12
July 25, 2019	Tour for Maui Pre-Health Career Corps(PHCC) students	Summer research interns from Hawaii Pacific Health
July 23, 2019	Tour for Hawaii Pacific Health Summer Interns	RNs
July 19, 2019	HPH RNs lecture	health professionals and patients
July 14, 2019	Clinical Trials Symposium	JABSOM summer undergraduate research students
June 26, 2019	Tour for JABSOM NHH summer interns	Kane Project participants and partners
June 21, 2019	Report to the Community	Students
June 12, 2019	UHCC Summer Interns Seminar Series	International conference for BC providers and researchers
June 5, 2019	Breast Density Symposium	Jr. soon to be sr. students at Iolani School
June 4, 2019	Tour for Iolani School "Rising Seniors"	RNs
May 30, 2019	HPH RNs lecture	



Examples of Community Events-2019

Date	Event Title	Audience Description
May 17, 2019	Journey Together Kauai	providers, survivors and caregivers
May 14, 2019	Healthy Hawaii Strategic Plan Advisory Group meeting	Community stakeholders
May 13, 2019	HPH RNs lecture	RNs
May 2, 2019	Patient Advocacy Committee	PAC/Cancer Survivors/Care Givers
April 25, 2019	Kuakini Breast Cancer Support Group	Cancer Survivors
April 23, 2019	Cancer Council of the Pacific Islands	Representatives from USAPI Cancer Control Coalitions
April 18, 2019	Tour for Moanalua H.S. jr. & sr. students	16 jr. & sr. students & 2 teachers
April 16, 2019	2019 HERO Appreciation Event	Patients and Providers
	HERO Appreciation Event	CT participants & guests, community clinical partners, UH Cancer Center faculty & staff, volunteers
April 6, 2019	HERO Appreciation Event	CT participants & guests, community clinical partners, UH Cancer Center faculty & staff, volunteers
April 5, 2019	Annual Cancer Clinical Research Accrual Leaders (ACCRUAL)	providers and staff
	Community Breast Health Education Project Training	Community partners, public, donors, UH Cancer Ctr., JABSOM members
March 16, 2019	Session	Clinicians, public health professionals, community health advocates
March 5, 2019	HPV Vaccination for Cancer Control in Hawaii	providers, survivors and caregivers
February 22, 2019	Journey Together Kauai	Community organizations
February 21, 2019	Journey Together Kauai	representatives from the Native Hawaiian community
February 19, 2019	Native Hawaiian Advisory Board mtg	representatives from the Native Hawaiian community
	2019 ACS Hawaii Pacific Relay for Life Leadership	Students
January 26, 2019	Conference	Students
	Tour for Students of Hawaii Advanced Research Program	UH Hilo SHARP students & advisors
January 25, 2019	(SHARP) from UH Hilo	UH Hilo SHARP students & advisors
January 8, 2019	Tour for U. of Delaware nutrition students & 1 advisor	U. of Delaware nutrition students

Recent UH Cancer Center discoveries with impact for the people of Hawai'i



Liver Cancer Trial

- Liver cancer is responsive to immunotherapy.
- A novel liver cancer trial combining two immunotherapy medicines, anti-PD1 antibody and anti-TIM3 antibody was developed by UH Cancer Center faculty Jared Acoba
- This trial is available only in Hawai'i





Optical Scanning for Obesity

- 3D optical scan was selected a top research program by the Obesity Week conference in Las Vegas, NV
 - This research is directed by UH Cancer Center faculty John Shepherd.
 - Graduate Student Michael Wong was recognized at the conference for his exceptional contributions to this research





Nutrition for Cancer Prevention

- A study to improve nutrition behaviors using a mobile food record received national recognition by the Journal of Behavioral Nutrition as the most cited paper.
- This work is led by UH Cancer Center faculty Carol Boushey.





Pancreatic Cancer

- Native Hawaiians and Japanese Americans were found to have a higher risk of pancreatic cancer
- This study was part of the Multiethnic Cohort (MEC) led by UH Cancer Center faculty Loic LeMarchand.
- This finding has led to other research to pinpoint the causes of the increased risk so that the best prevention strategies can be implemented.





UH Cancer Center-HMSA collaboration

- Breast cancer patients are eligible for a novel trial to reduce exposure to harmful radiation with CT scans in a new trial sponsored by UH Cancer Center and endorsed by HMSA
- The partnership was critical for moving forward with the trial to ensure that patients got the highest quality of care.
- UH Cancer Center faculty Dr. Jessica Rhee and HMSA senior medical director Dr. Stefanie Park worked to get the study going in Hawai'i in order to ensure that the results are applicable to Hawaii's multiethnic population.

**Why UH Cancer Center's
research is unique among all
NCI cancer centers and how it
is specifically focused on our
unique population**



Structure

- UH Cancer Center structure as an independent Organized Research Unit within UH Mānoa facilitates collaborations **ACROSS** the UH System
 - Most UH Cancer Center faculty hold joint appointments in other schools/colleges including:
 - JABSOM (16 UHCC faculty in Departments of Medicine and Cell and Molecular Biology and Pathology), Public Health (Sch. Social Work), School of Nursing, CTAHR (Nutrition), Chemistry
 - 26 UH Cancer Center members are based in UH units other than the Cancer Center including:
 - JABSOM, Public Health, CTAHR, Nursing, Natural Sciences, College of Pharmacy (Hilo), Arts & Humanities



Structure

- UH Cancer Center has 8 members across the Pacific in:
 - Guam, American Sāmoa
- 63 community based oncology practitioners in Hawai‘i are UH Cancer Center members
- ***UH Cancer Center is an “umbrella” that unifies and supports researchers and clinicians across multiple schools and practices, in order to promote cancer research and thereby reduce the burden of cancer for the people of Hawai‘i***



Research focused on Native Hawaiians

- *Hula* to enhance physical and emotional well-being of cancer survivors (Drs. **Bantum, Loo, Yu**)
- Role of environment in diabetes among Native Hawaiians and risk of cancer
 - Collaborations with JABSOM Dept. of Native Hawaiian Health (Dr. **Maunakea**)
- Population genetics in Native Hawaiians in Multi Ethnic Cohort
 - Collaborations with School of Pharmacy (Dr. **Chiang**)



Research focused on Native Hawaiians

- Defining a possible mechanism for the high breast cancer risk of Native Hawaiians (Drs. **Loo & Cheng**)
 - Role of 27-hydroxycholesterol as a possible cause
- *Project to increase colon cancer screening for Native Hawaiian men (Dr. **Cassel**)*
 - *No Ke Ola Pono a Nā Kāne*
- Prevention of smoking and alcohol use among adolescents on Hawai'i (Dr. **Okamoto**)
 - *Ho'ouna Pono:*



E-Cigarettes Use in Youth



- Program of research on e-cigarette use in Hawai'i youth
 - Hawai'i leads the nation with 15% of middle-schoolers and 25% of high-schoolers vaping (Wills)
 - E-cig leads to combustible tobacco smoking in youth (Wills)
 - Marketing to youth found to be primarily through social media (Pokhrel)

Tips for talking with your kids about VAPING

Know the facts. Learn about e-cigarettes and young people before you start the conversation with your child.

- E-cigarettes are known by many different names. They are sometimes called e-cigs, ehookahs, mods, vape pens, vapers, tank systems, and electronic nicotine delivery systems.
- Most vaping devices contain and deliver nicotine. Nicotine can harm a teenager's developing brain and lead to addiction.
- Simply talking with your teen about these products can help protect them.

Be patient and ready to listen. Your goal is to have a conversation, not to deliver a lecture. So avoid criticism and encourage an open dialogue.

There is no "perfect time" to talk. Driving in the car together or waiting at an appointment is often the best time. You can start by mentioning a news story, a TV show, or something that you heard about vaping. Or ask your child what he or she thinks about a situation you witness together such as seeing someone use an e-cigarette, passing a vape shop when you are out, or seeing an e-cigarette advertisement.

There is no "perfect talk." Consider your talk with your child about vaping as a learning dialogue. You may have some facts about vaping at hand, but concede that you don't know all the answers. It will go a long way to keep your kids from going on the defense.

Aid what your child thinks. Show some genuine curiosity. Ask your child, "What's your take on vaping?" or "Do you know kids who use e-cigarettes?"

Be open and honest. Be truthful about what you know about the dangers of vaping, and what you don't know. You can honestly say, though, "Vaping isn't harmless. I hope you can steer clear of it."

You can't change control everything your children do when they're not with you. Talking with your kids about vaping will let them know that you're concerned about their health.

Adapted from Talk with Your Teen About E-cigarettes: A 10-Step Plan for Parents from E-cigarettes: The Growing Youth and Young Adult Use of the E-cigarette and Other Common Labels from New York State's Office of Vaping, New York, February 2, 2016.

GET OUTRAGED!
Get the facts at GetOutraged.org
1-877-372-7478



Breast Cancer Research Program

Discovery

- Incidence and mortality of BC across different **racial and ethnic groups in Hawai'i**
- **Racial differences** in expression of mtp53 & MDM2 and association with BC-specific mortality
- Association of 27-hydroxycholesterol with body fat distribution and BC risk
- Association of visceral fat with mammographic density and correlation with biomarker score of BC risk
- Glyphosate metabolite **AMPA exposure** (RoundUp) and breast cancer risk
- Establishment of a **State-wide mammography registry** – focus on utilization of Artificial Intelligence for improved cancer screening for women with dense breasts

Interventions

- Physical activity for patients receiving adjuvant chemotherapy and impact on survival (IIT)
- **Culturally appropriate physical activity (Hula)** for breast cancer survivorship – impact on biomarkers of inflammation and psychosocial outcomes
- CCDR-breast cancer decision aide study
- 3D vs. 2D mammography – targeted enrollment in **vulnerable ethnic populations**

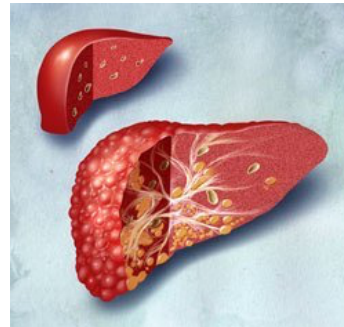
Impact: Achieved – mortality disparities across race/ethnicity; **impact of race/ethnicity** on adjuvant Rx (TAILORx)
Potential – novel markers for breast cancer risk relevant to Hawai'i population; impact of physical activity on BC survivorship and use of culturally relevant approaches; use of AI for improved screening and detection



Liver Cancer (HCC) Research Program

Visceral liver fat as an etiology of liver cancer

- *Discovery*
 - 4x higher incidence in **Japanese Americans**
 - **Native Hawaiian** women with second highest prevalence of fatty liver
 - Increased biomarkers of inflammation
 - Alterations in gut microbiome
- *Interventions*
 - **Healthy Diet and Lifestyle** interventional research study



Understanding mechanisms of the high incidence, and treatment of liver cancer in Hawai'i *

- *Discovery*
 - Liver fluke and aflatoxin as an etiology of liver and bile duct cancer
 - Oral microbiome and HCC risk
 - NASH and HCC
 - Exosomal miRNAs and mechanism of PDL-1 upregulation in HCC
 - PET imaging and liquid biopsy for CTNNB1 mutations in HCC
- *Interventions*
 - Immunotherapy IIT trial for HCC

Impact: Potential – **defining the causes of increased liver cancer incidence in Hawai'i**; development of interventions focused on disease prevention



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Community Stakeholders



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