



UNIVERSITY OF HAWAI'I
CANCER CENTER

The Hawai'i Cancer Consortium and UH Cancer Center: An Equitable Clinical Care

Naoto Ueno, MD, PhD, FACP

Director

Professor of Medicine

University of Hawai'i Cancer Center

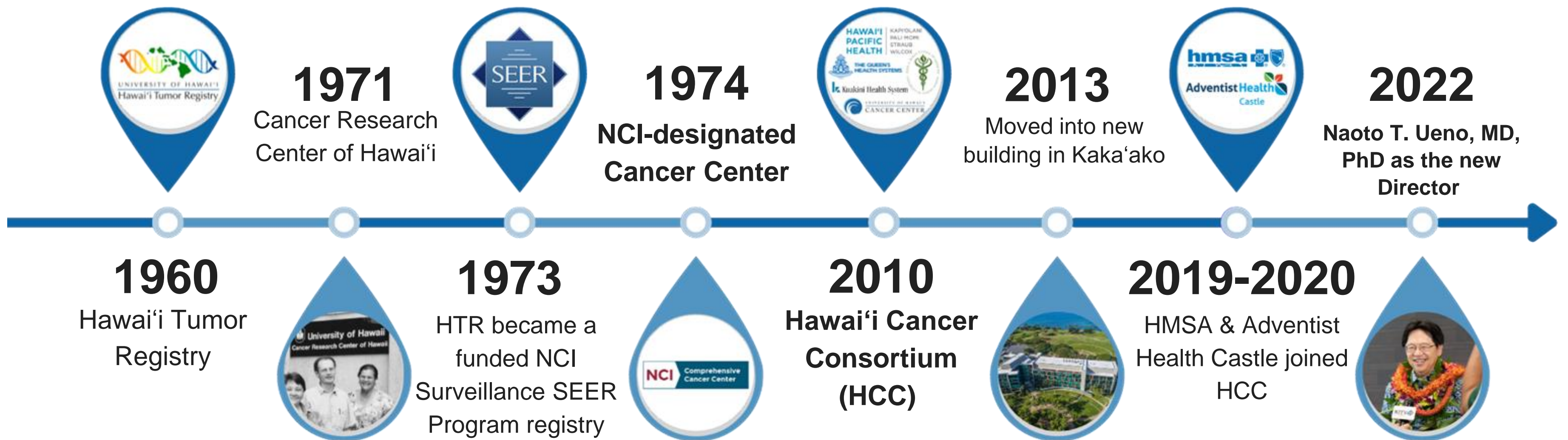
Nueno@cc.hawaii.edu



A Cancer Center Designated by the
National Cancer Institute



Do you need a Cancer Center?





Area to Impact





Hawai'i & US-Affiliated Pacific Islands

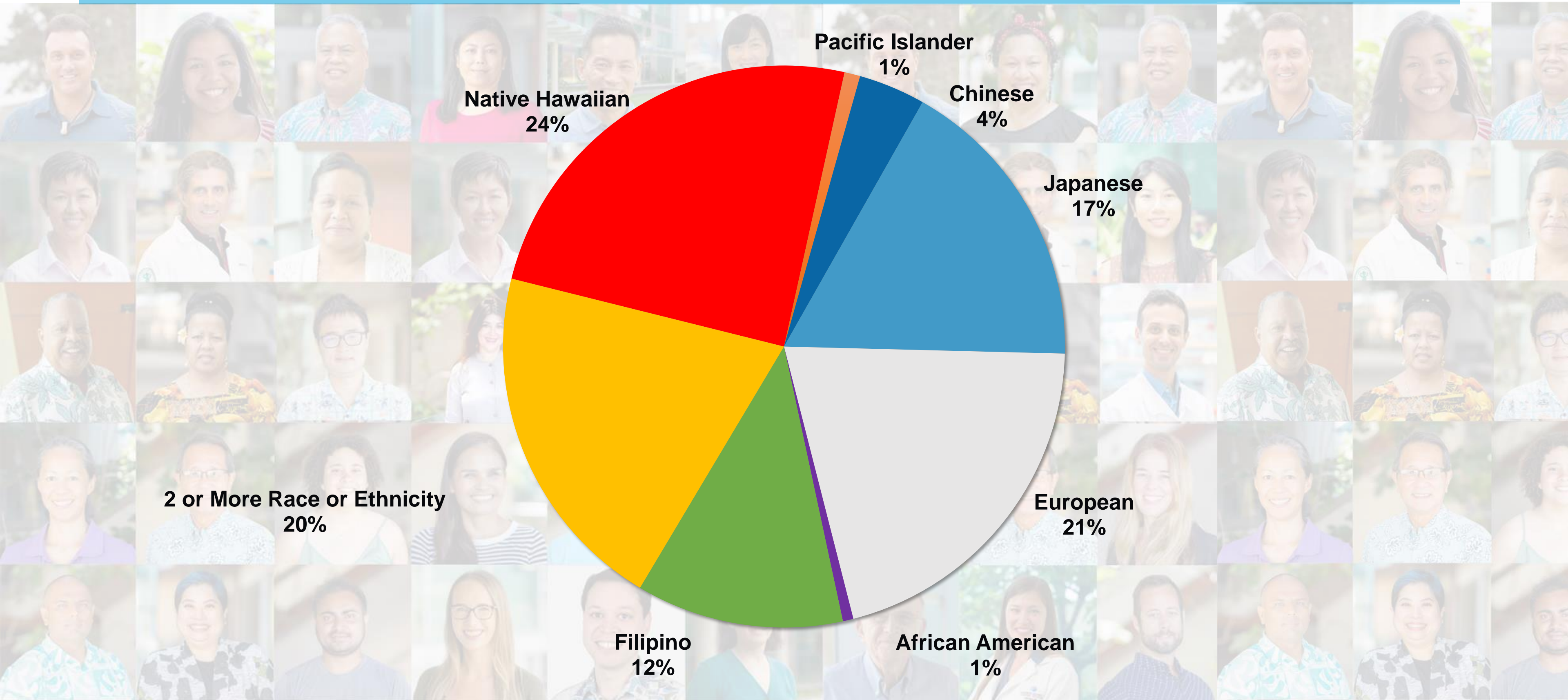
- American Sāmoa
- Commonwealth of the Northern Mariana Islands
- Federated States of Micronesia
- Guam
- Republic of the Marshall Islands
- Republic of Palau



Location	Population	Annual Cancer Cases
Hawai'i	1.44M	7,587
USAPI	0.42M	589
Totals	1.86M	8,176



Hawai'i has no Racial/Ethnic Majority



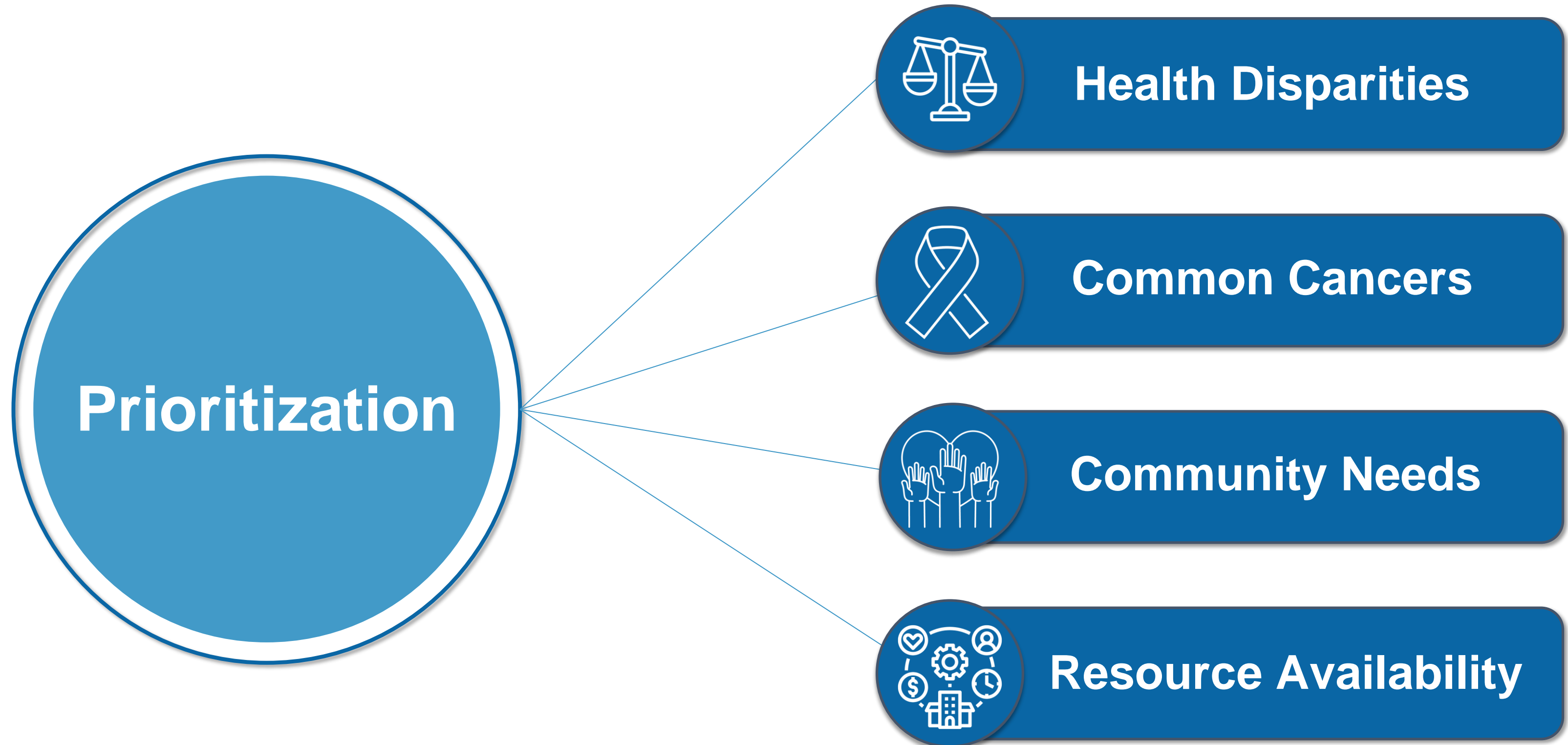


Health Disparity

Opportunity and Challenges



Catchment Area-Focused Research





Catchment Area-Focused Research

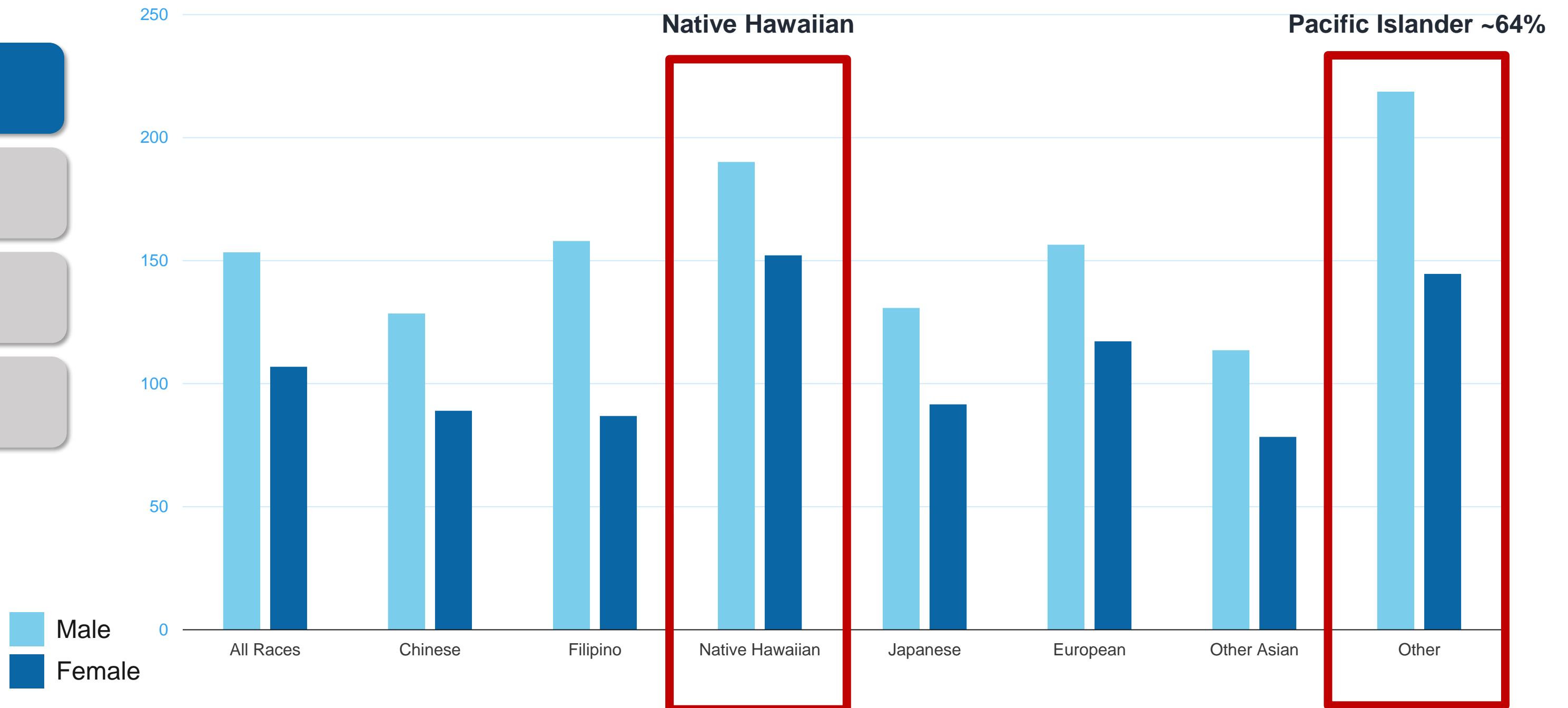
Cancer Mortality Rate by Sex & Ethnicity, Hawai'i 2014-2018

Health Disparities

Common Cancers

Community Needs

Resource Availability





Catchment Area-Focused Research

Uniquely High

Disparity in NHPI

Health Disparities

Common Cancers

Community Needs

Resource Availability

Site	Hawai'i Incidence Rate	U.S. Incidence Rate	Hawai'i Mortality Rate	U.S. Mortality Rate
Breast (F)	140.2	127	15.9	19.6
Prostate (M)	101.1	110.5	14.9	18.8
Lung & Bronchus	41.7	54	26.6	35
Colon & Rectum	38.8	36.5	11.8	13.1
Liver	10.6	8.6	8.0	6.6

Hawai'i Tumor Registry (SEER), 2012-2016 (Hernandez)
NCI State Profiles SEER data



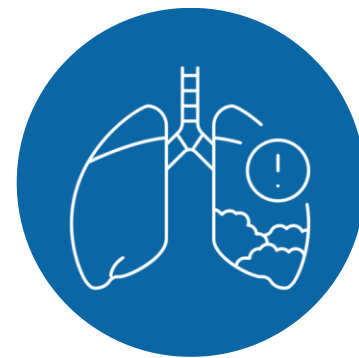
Catchment Area-Focused Research

Health Disparities

Common Cancers

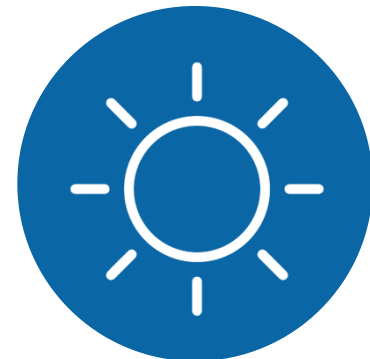
Community Needs

Resource Availability



Mesothelioma

Environmental exposure in shipyards with transient population exposure



Melanoma

State incidence 24.4, US 22.5 (SEER 2016-2020 Data)
Mean UV Inde, 11, the highest among the nation

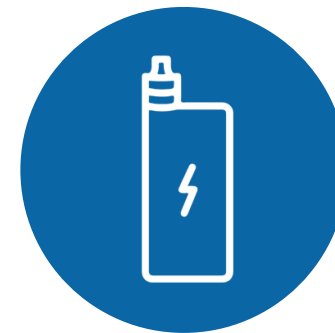


Catchment Area-Focused Research

Prevention



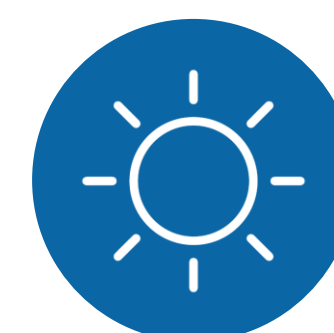
Tobacco



E-cigarette



Obesity



Sun Protection

Screening



Breast Cancer



Colorectal Cancer



Lung Cancer

Health Disparities

Common Cancers

Community Needs

Resource Availability



Equitable Cancer Care

UNIQUE CHALLENGES

**Geographic
Isolation**

**Socioeconomic
Disadvantage**

Health Disparities
Race/Ethnicity, Aging,
and Access

**Limited Clinical
Trial Access**

UNIQUE OPPORTUNITIES

**Unique
Environment**

Health Disparities

Diverse Cultures



Mission/Vision/Core Values

MISSION

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

VISION

To become a global leader in cancer screening, prevention, treatment, & education, significantly *reducing the cancer mortality rate in Hawai'i & the Pacific.*

Diversity, Equity, Inclusion

Community Outreach and Engagement

Cancer Research Training

CORE VALUES

HO'OULU, INNOVATION
To Inspire, Foster Growth

LAULIMA, COLLABORATION
Many Hands, Cooperation

KULEANA, COMMITMENT
Responsibility, Privilege

PONO, DIVERSITY
Righteousness, Fairness



Our Story



We drive our research through our community engagement and the real-world needs



We confront cancer disparities with understanding every layer of our diverse community



We deliver culturally sensitive care & education to reduce the cancer burden



Research Program

How do we address?



Research Program Structure

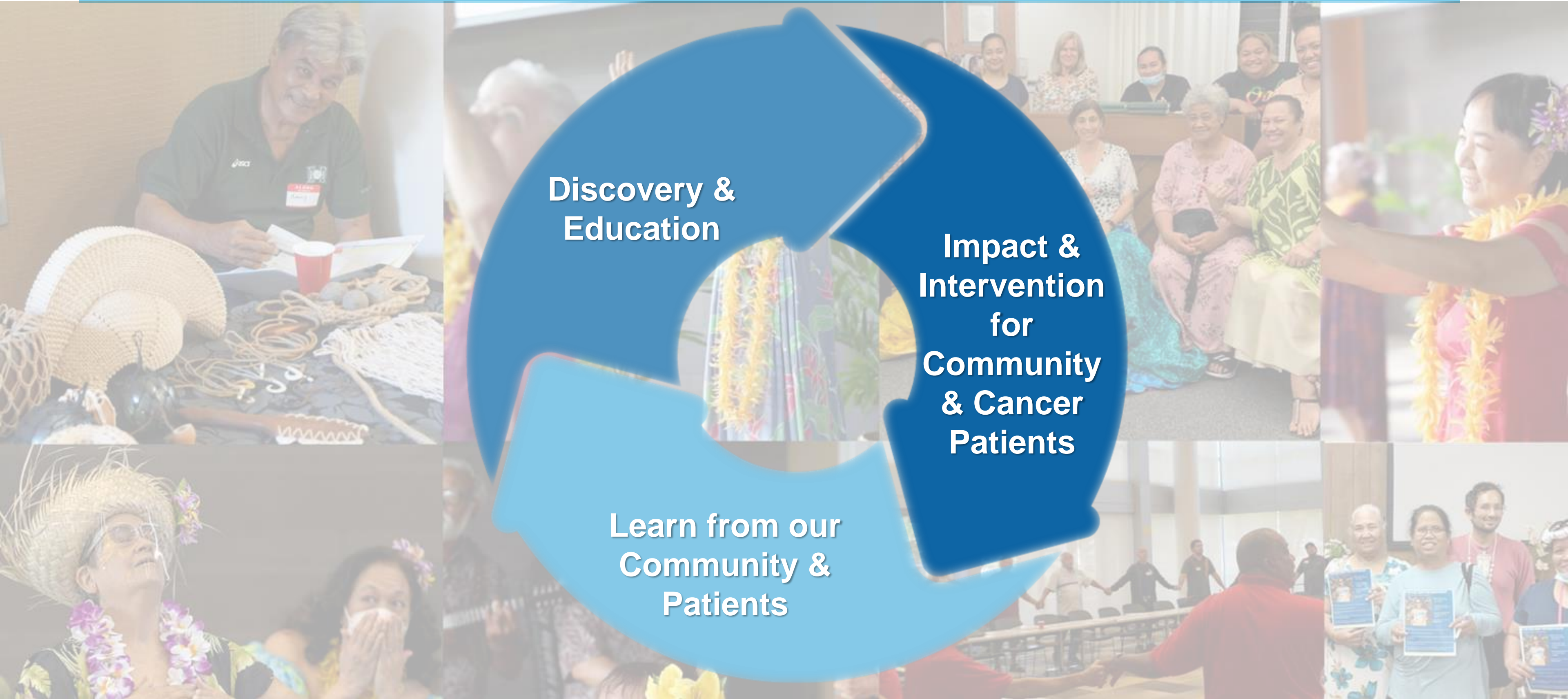
Designed to Promote “Collaboration” & “Translation for Interventions”

Programs	Themes	
	Discovery	Intervention
Cancer Biology (CB)	Cancer Targets & Mechanisms	Translational & Clinical Research
Population Sciences in the Pacific (PSP)	Cancer Epidemiology & Disparities	Cancer Prevention & Early Detection



Our Strength

“Bidirectional Translational Research”



**Discovery &
Education**

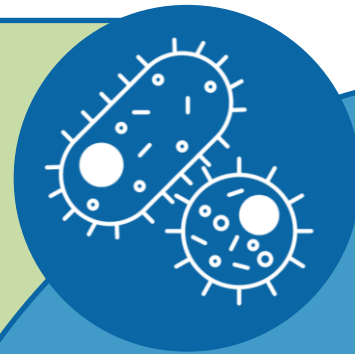
**Impact &
Intervention
for
Community
& Cancer
Patients**

**Learn from our
Community &
Patients**



Cancer Biology Research Accomplishments & Areas

**Immunotherapy
Development**



Cancer Mechanisms



**Analytical
Biochemistry**

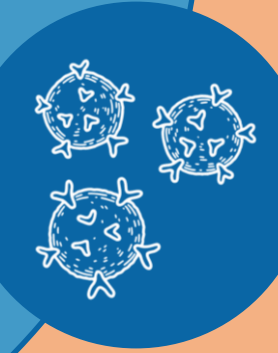


**COE
Shared Resources
CRTEC
PED**



**Biomarker
Development**

**Anti-cancer Drug
Development**



CAR-T Cell Therapy

**Community-Driven
Clinical Trials**



**Investigator-Initiated
Clinical Trials**





Hawai'i Cancer Consortium IITs for Advanced Hepatoma

Phase II Study of Coboliamb (anti-TIM-3) in combination with Dostarlimab (anti-PD-1), a clinical trial for the treatment of advanced hepatocellular carcinoma

Research Discovery (CB) & Clinical Trial Planning (CB/CTO) by UHCC

Clinical Trial is conducted at HCC/QHS and monitored by UHCC CTO



Liver cancer clinical trials participant (left)
Jared Acoba (CB) (right)

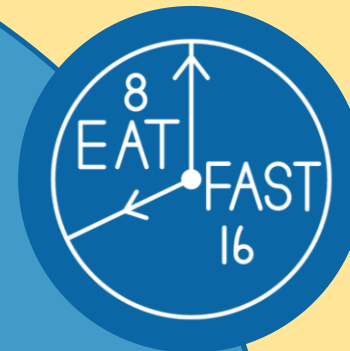


Population Sciences in the Pacific Research Accomplishments & Areas

Tobacco/E-cigarette
& Betel Nut use



Intermittent Fasting



COE
Shared Resources
CRTEC
PED

Cancer Survivorship



Diet & Nutrition



Access to Cancer
Treatment



Childhood Obesity



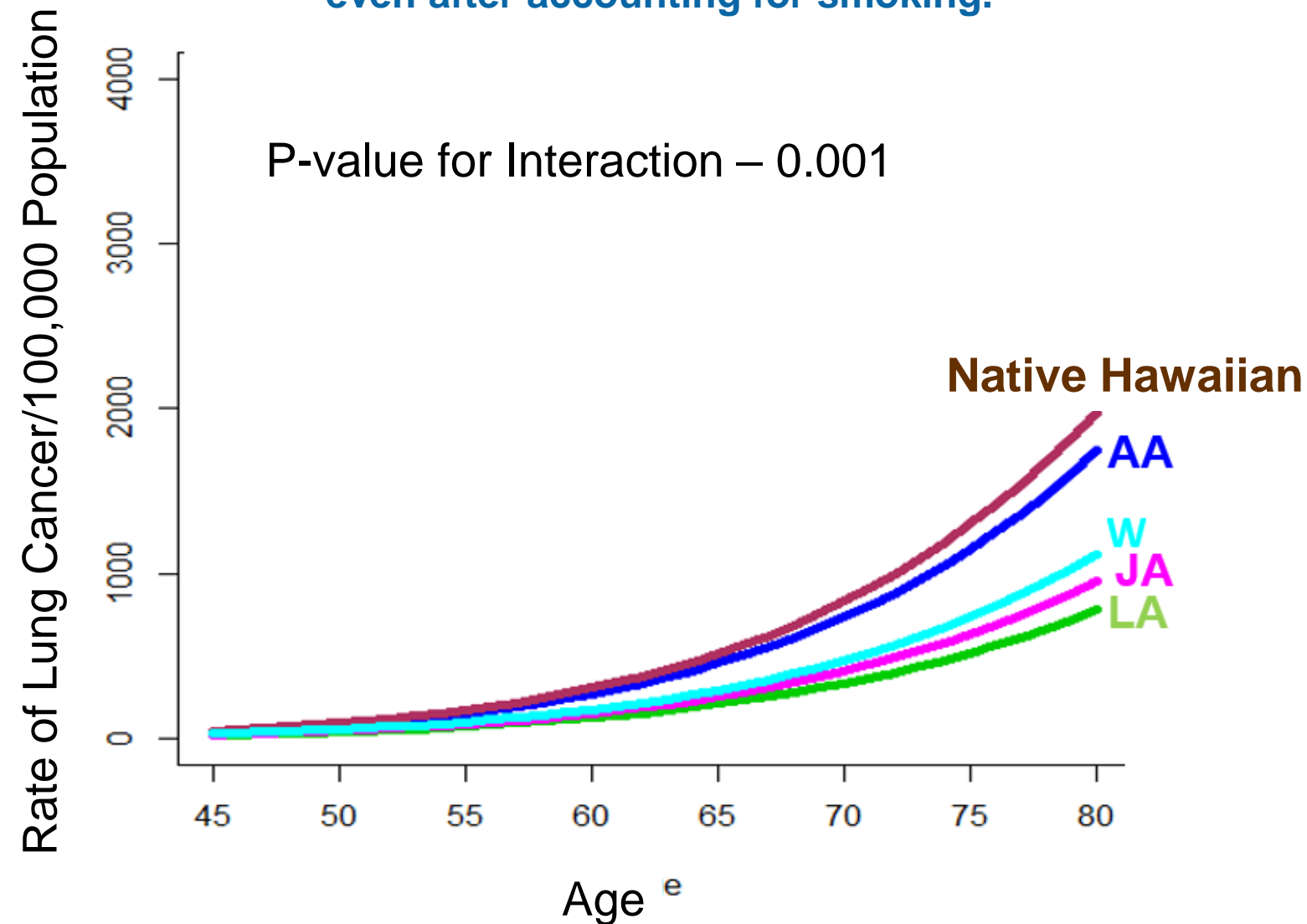


PSP Recent Research Highlight

Addressing Lung Cancer Disparities

Lung Cancer Incidence in Multiethnic Cohort

Racial/Ethnic Differences in Lung Cancer Risk even after accounting for smoking.



The discovery of racial and ethnic disparities in lung cancer in MEC has led to:

- **P01 with University of Minnesota since 2009 (3rd funding cycle)**
- **Inter-programmatic collaboration with CB to molecularly characterize lung tumors to address disparities in survival (R01 – 2020)**
- **P20 - SPORE Translational project to mitigate lung cancer disparities in Native Hawaiians (2023)**

SUPPORT:

P01CA138338
R01MD014862
P20CA275734

SHARED RESOURCES:
BSR, GBSR

CANCER DISCOVERY:
JNCI 2019



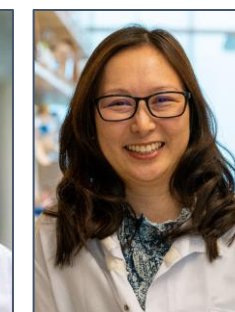
Le Marchand (PSP)



Binder (PSP)



Loo (CB)



L Park (PSP)



Wilkens (PSP)



Multiethnic Cohort Study (MEC)

215,000



MEC Study
participants

biorepository containing

2.5M

biological specimens



Japanese
26%

Native Hawaiian
7%

Hispanic
22%

2 or More
Race or
Ethnicity 6%

African American
16%

European
23%

30th

year of this
longitudinal
study



Data samples used by



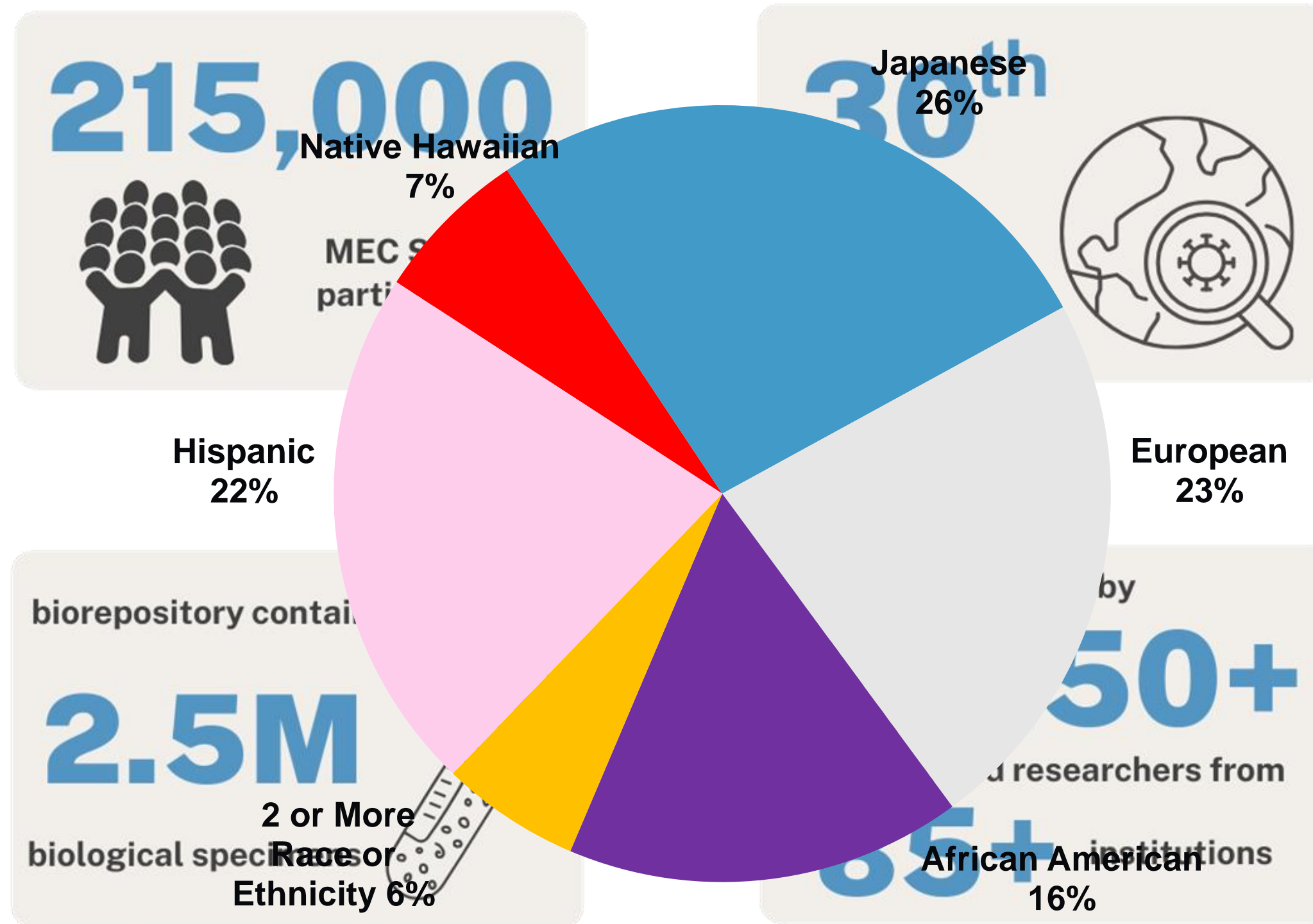
150+

trainees and researchers from

85+ institutions



Multiethnic Cohort Study (MEC)



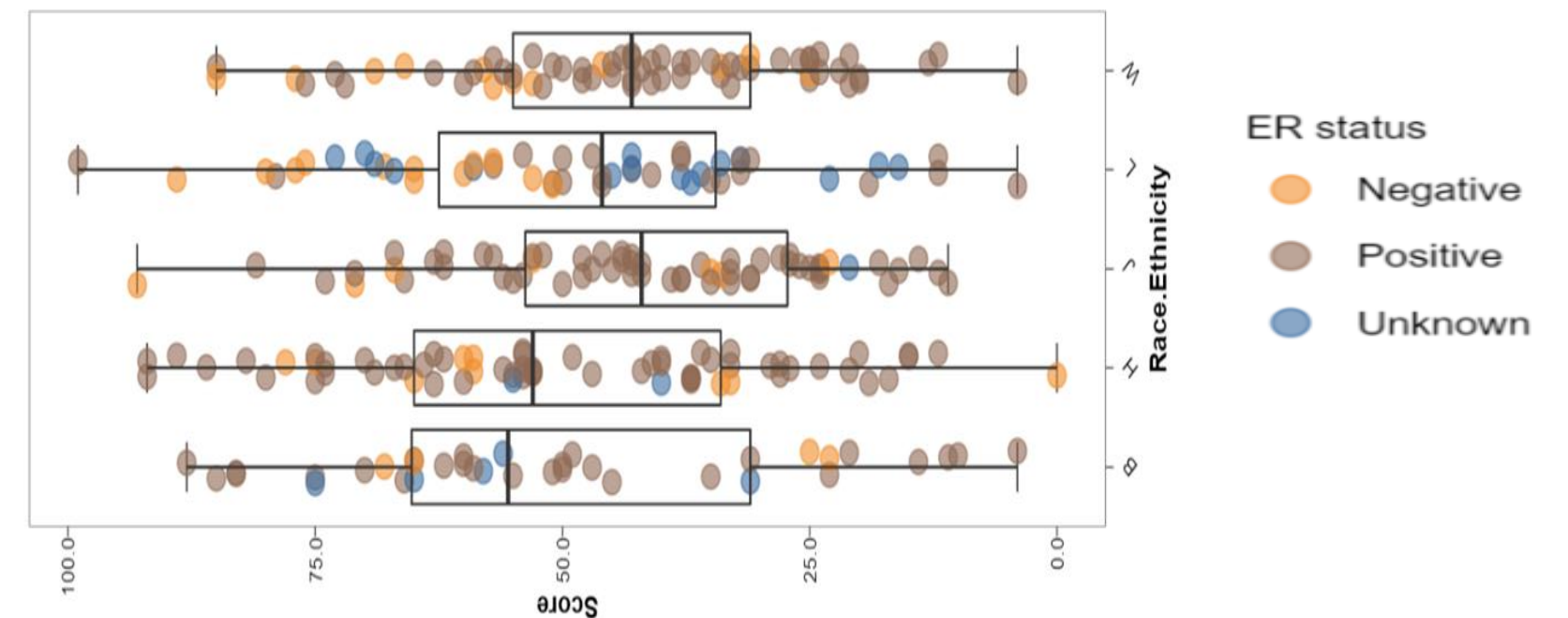
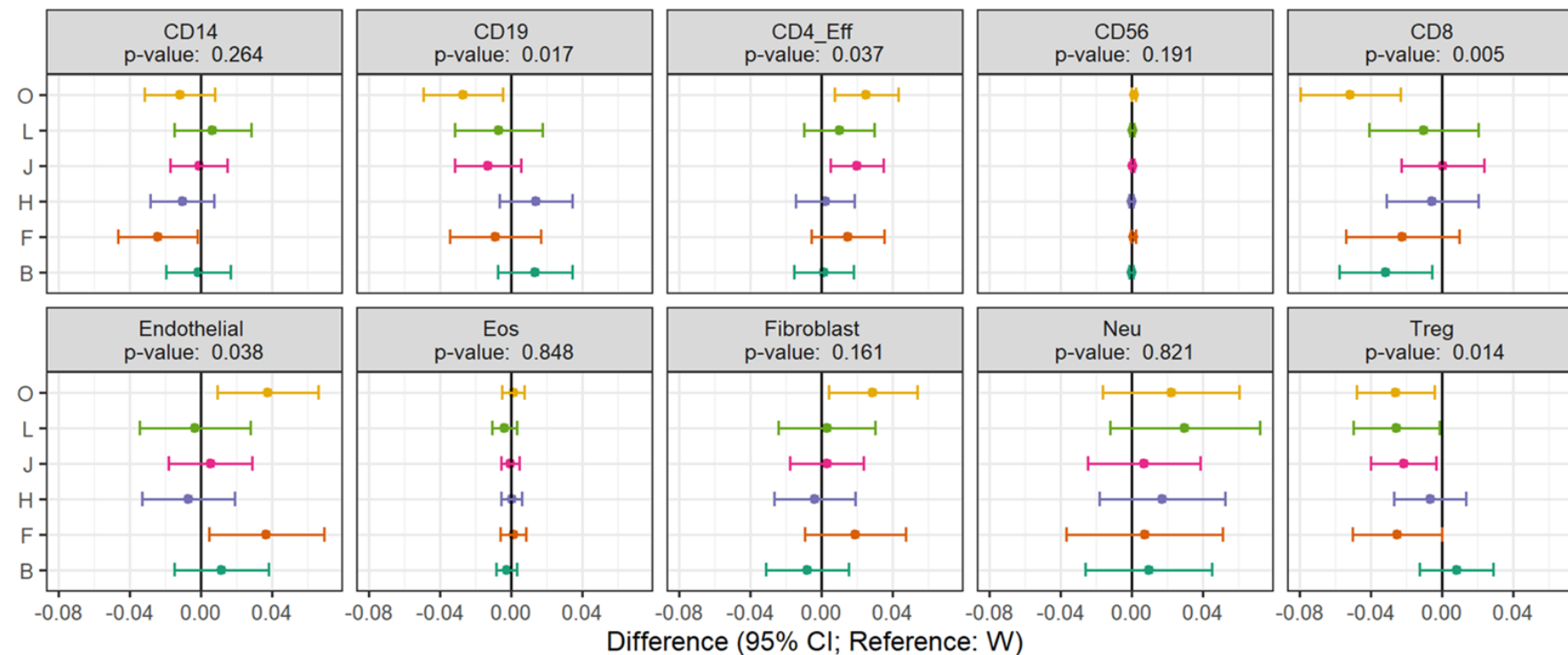


Interprogrammatic Outcome by Utility of MEC Molecular Profiles of Breast & Lung Tumors

Develop precision-based treatment strategies for individuals of diverse racial and ethnic populations

Lung Cancer; immunological landscape, MethylCybersort, n=294

Breast Cancer; risk recurrence signature, Nanostring B360, n=274



SUPPORT:

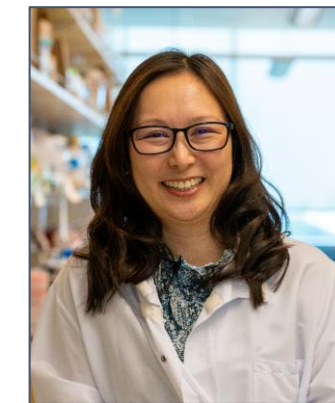
R01CA229815
R01MD014862
P20CA275734

**PROGRAM &
COLLABORATIONS:**
PSP, CB, USC, UCSF

SHARED RESOURCES:
GBSR, BSR, ABSR,
Pathology Core,
Hawai'i Tumor Registry



Loo (CB)



L Park (PSP)



Cheng (PSP)

Clinical Network

Saving Lives in Hawai'i and the Pacific

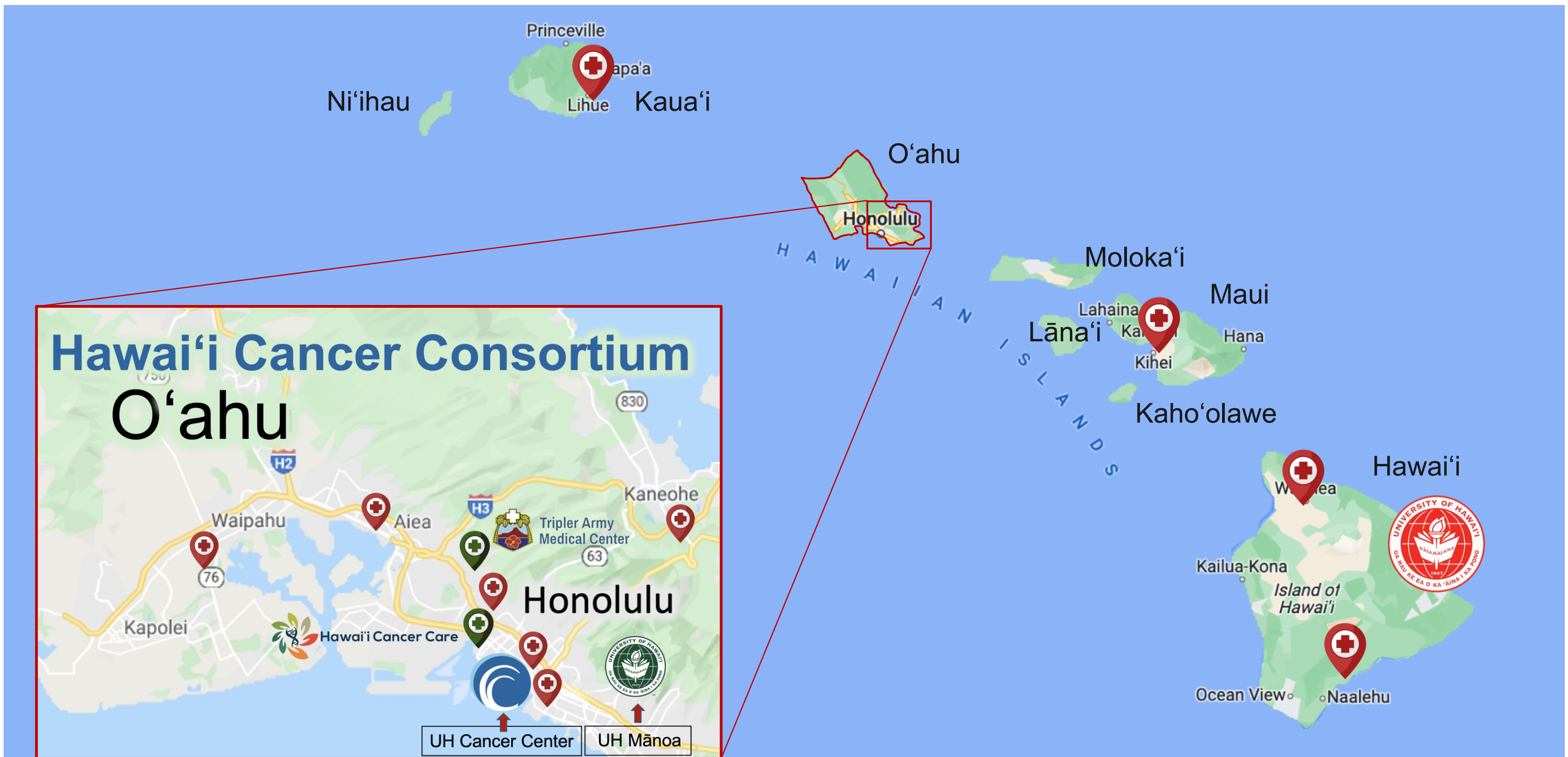


UNIVERSITY OF HAWAII
CANCER CENTER



Clinical Network by Hawai'i Cancer Consortium

2/3 of Cancer Patients in Hawai'i





Hawai'i Cancer Consortium

Established in 2010, 501 (c) (3)

Chair: David Lassner, President of the University of Hawai'i System

President: Naoto T. Ueno

*Non-NCI Designated Cancer Center Consortium



Naoto T. Ueno, MD, PhD
Director



Jason C. Chang, MD, MBA
President & CEO



Raymond P. Vara, Jr.
President & CEO



Greg Oiishi
President & CEO



Ryan Ashlock, CPA, MBA
President



Mark M. Mugiishi, MD
President & CEO



T Samuel Shomaker, MD
Dean



Our Challenges

**Clinical trials are an
essential part of the
standard of care in cancer**

ASCO



Clinical Trial Impact 2017-2023

63



**Investigator-initiated
clinical trials**

Enrolled

24,634

Clinical trial participants

3,877

**Non-therapeutic
interventional participants**

587

**Therapeutic interventional
participants**

75%

**Racial or ethnic minorities
among Therapeutic & Non-
therapeutic accrual are**



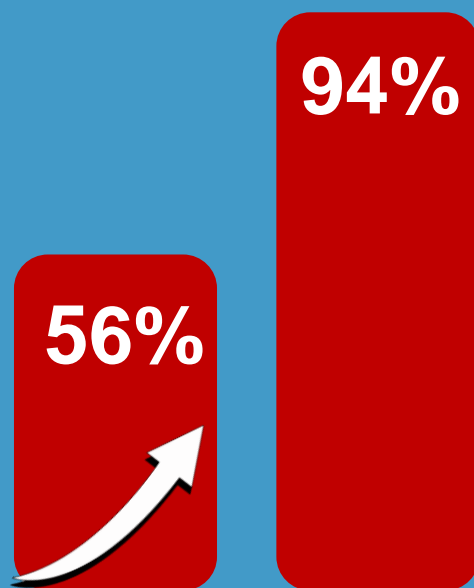
Therapeutic Clinical Trial Enrollment

- **National Benchmarks:** 2-5% of adult cancer patients
- **NCI-Designated Cancer Centers:** at least 10-15% enrollment of newly diagnosed cancer patients
- **High-Performance Centers:** Set more ambitious goals, aiming to enroll 15-20% or even higher of their patients in clinical trials



Challenges & Accomplishment since Late 2022

Limited clinical research support staff



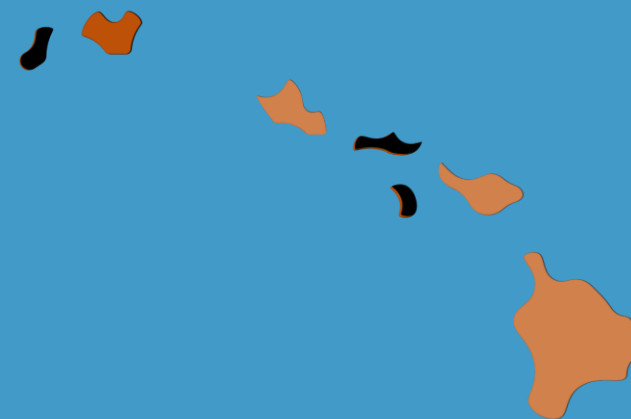
Iwase (CTO)



Berenberg (TCR)

Restructured and Restored Clinical Trial Office Functionality

Lack of robust clinical trial access outside of O'ahu



Creating Hawai'i Island & Maui Clinical Trial Network



Acoba J



Yamauchi H



Yamauchi T

Limited number of oncology subspecialists



Recruited Disease Experts & Created 10 Disease Site Working Groups

Castle (COE)



Strategic Plan for Enhancing Trial Accrual

Increase provider engagement

through Disease Site Working Groups & Hawai'i Cancer Consortium



Increase community awareness of clinical trials (COE, PAC)



Enhance the clinical trials portfolio (IIT, Pharma, etc.)



Improve the quality & quantity of our research support staff



Recruitment of clinician/scientist





Physical Space

Shell Space (Annex)
EPCRC
36,000 sq ft

Total Space
193,928 sq ft



Iwase
(CTO)



Workman
(CTO)



Quinn
(CTO)

Ho'ōla: Early Phase Clinical Research Center

Total Funding: 19.5 million

State Legislature, CIP

Federal Grant, NIH, C06OD028381

Congressional Directed Spending

Business Plan Completed in 2023
Ongoing Operation Planning



First & Second Floor shell space = 18,500 s.f.



Ka ‘Umeke Lama

The Bowl of Enlightenment



"Ka 'Umeke Lama" Clinical Oncology Joint Initiative of JABSOM and UHCC

""Repository of Enlightenment and Healing
Umeke means a vessel or container, but it
can refer to a *knowledge repository*.

Aside from being a type of wood, the word
lama has many meanings, including
medicine and enlightenment, as well as a
place *where the sick were placed for
healing* was made from the lama wood.



UNIVERSITY OF HAWAI'I
CANCER CENTER





Hawai'i Cancer Consortium “Ka ‘Umeke Lama” (TBA)



**Improve
Clinical Quality**
By education,
clinical research
& clinical trials

Academic Clinical Oncology Activities

**State-Wide Clinical
Professional
Education leading
to
Oncology
Fellowship**



Yamauchi T




Boddy C

18 Clinical CCSG Members
79 Clinical Non-CCSG Members

97 Clinical Members

**Address Neighbor
Islands & USAPI
Health Disparity**

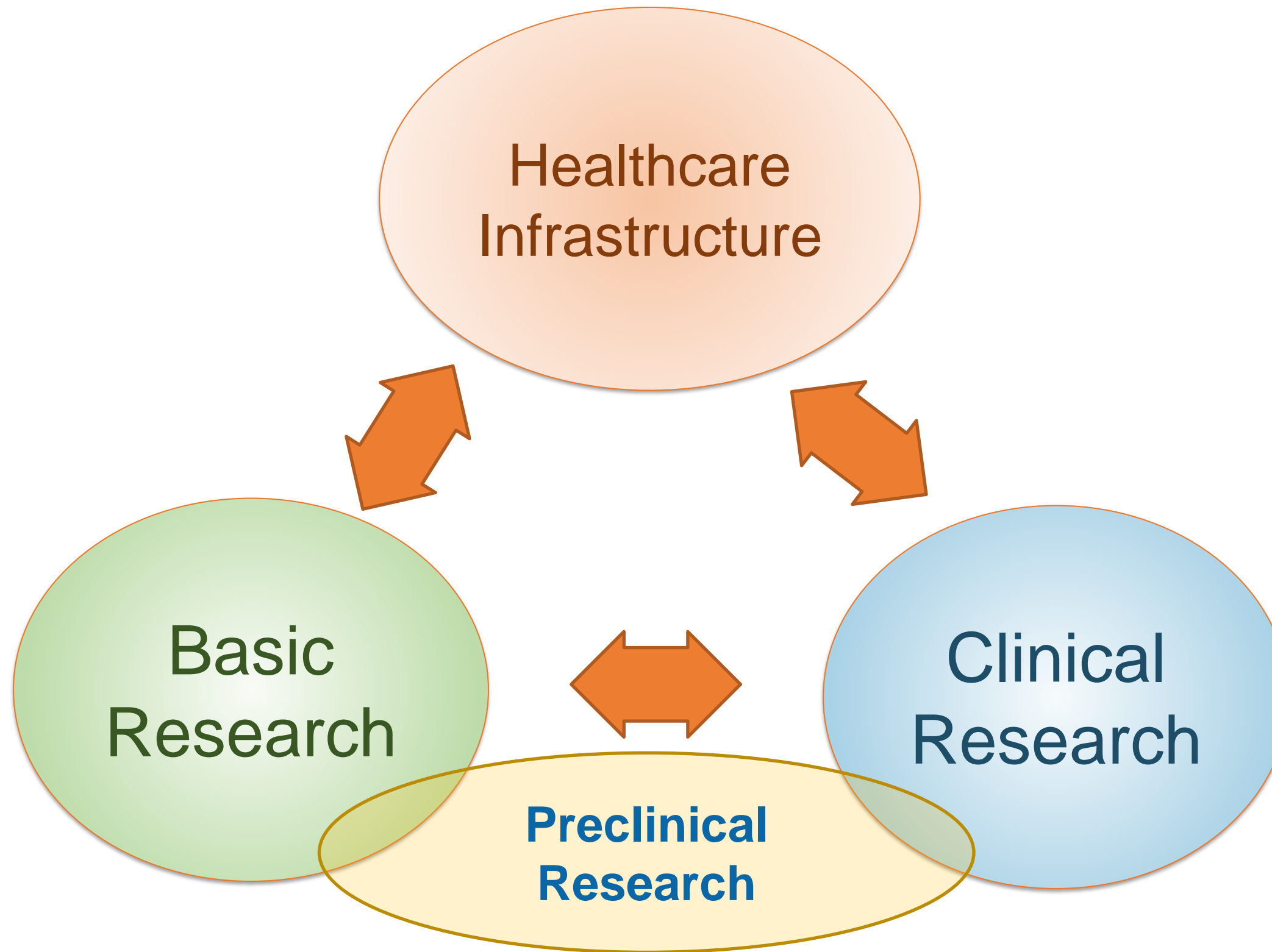




Our Future to Thrive

Infrastructure and Workforce Development

Overall Infrastructure



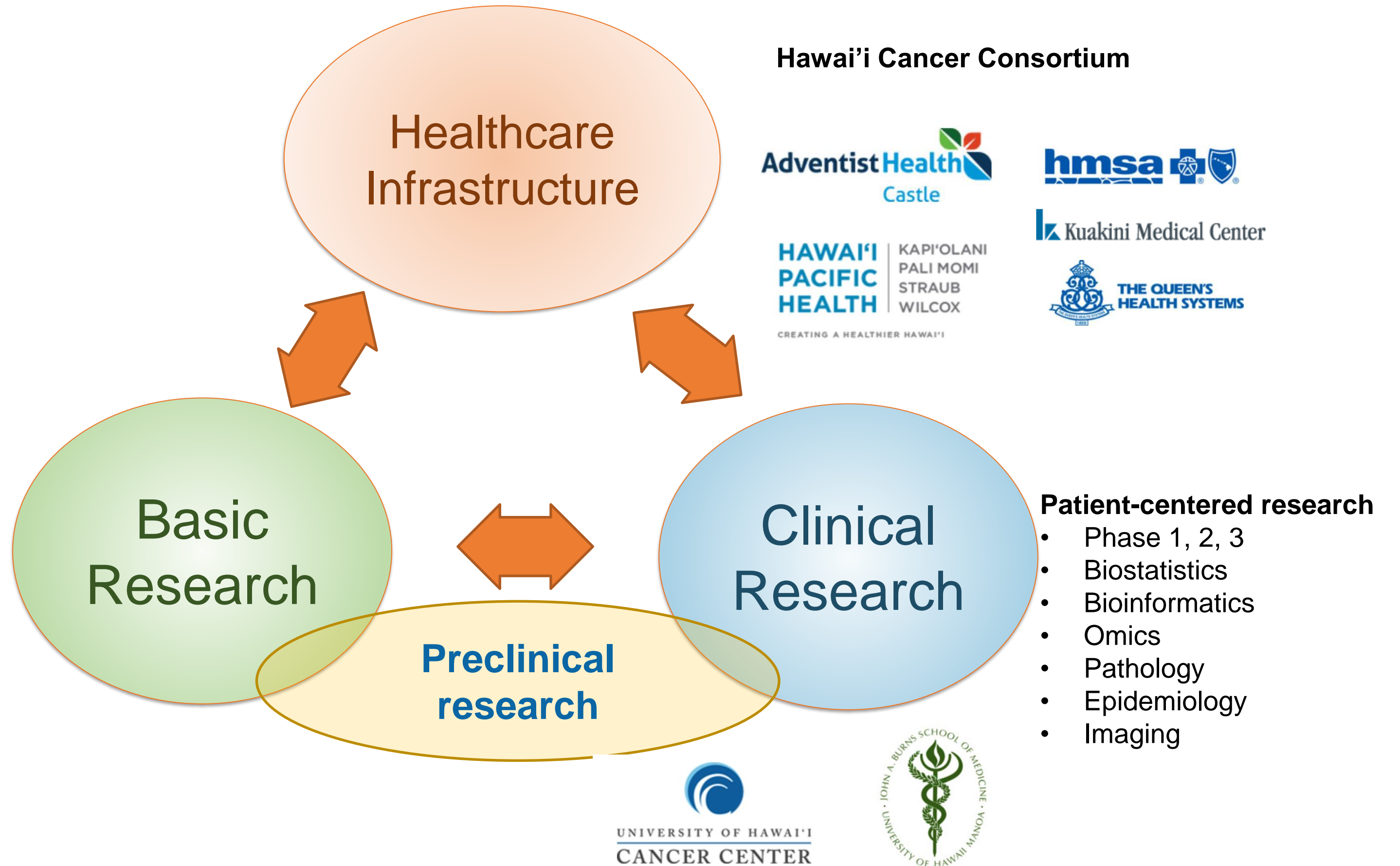
- Hypothesis-driven target
- Mechanism study
- Computational modeling
- Bioinformatics
- *In vitro, in vivo, ex vivo*

Patient-centered research

- Phase 1, 2, 3
- Biostatistics
- Bioinformatics
- Omics
- Pathology
- Epidemiology
- Imaging

Preclinical Core

Overall Infrastructure



- Hypothesis-driven target
- Mechanism study
- Computational modeling
- Bioinformatics
- *In vitro, in vivo, ex vivo*

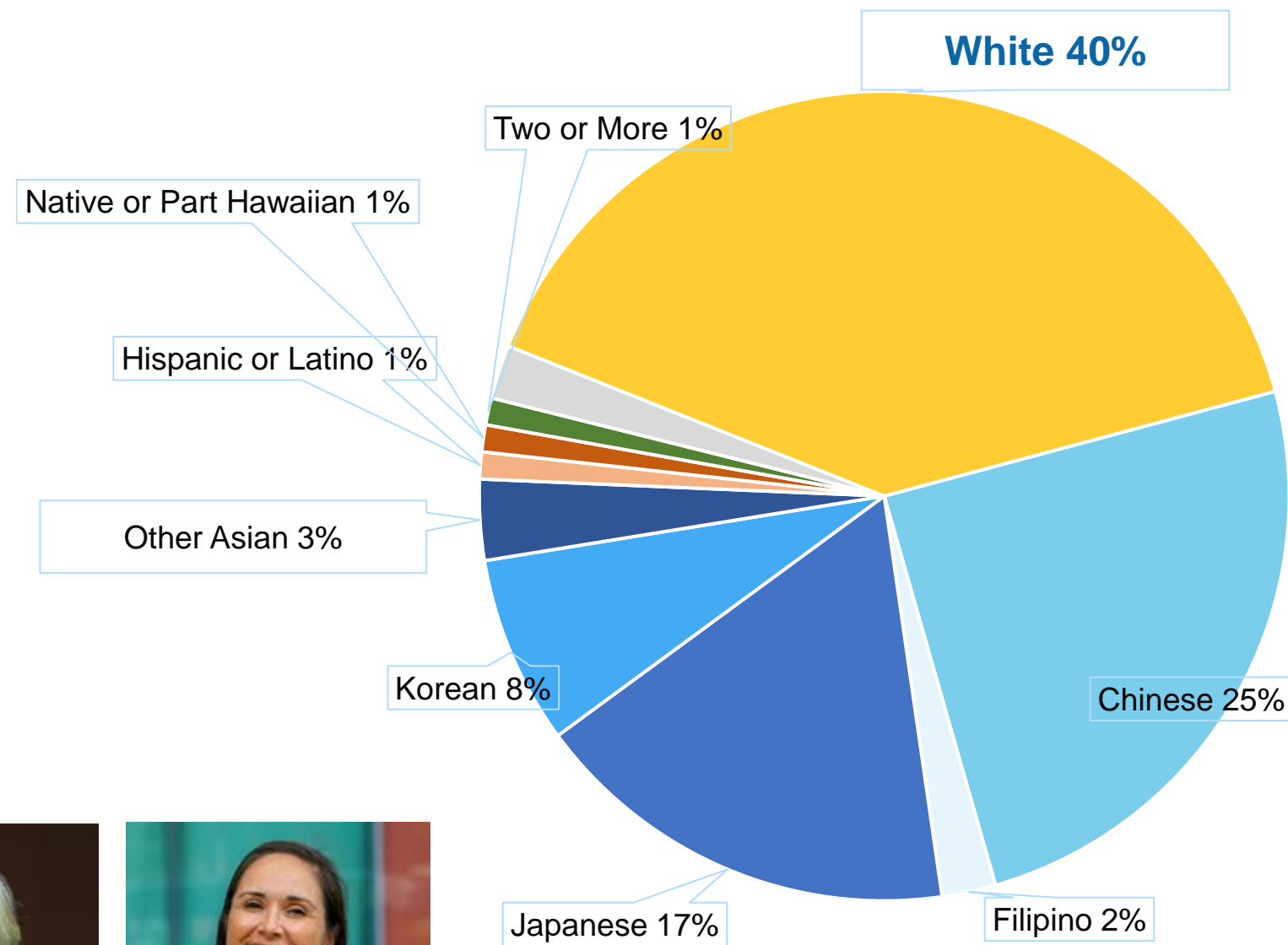
Patient-centered research

- Phase 1, 2, 3
- Biostatistics
- Bioinformatics
- Omics
- Pathology
- Epidemiology
- Imaging

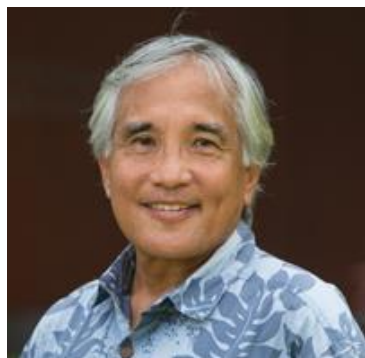
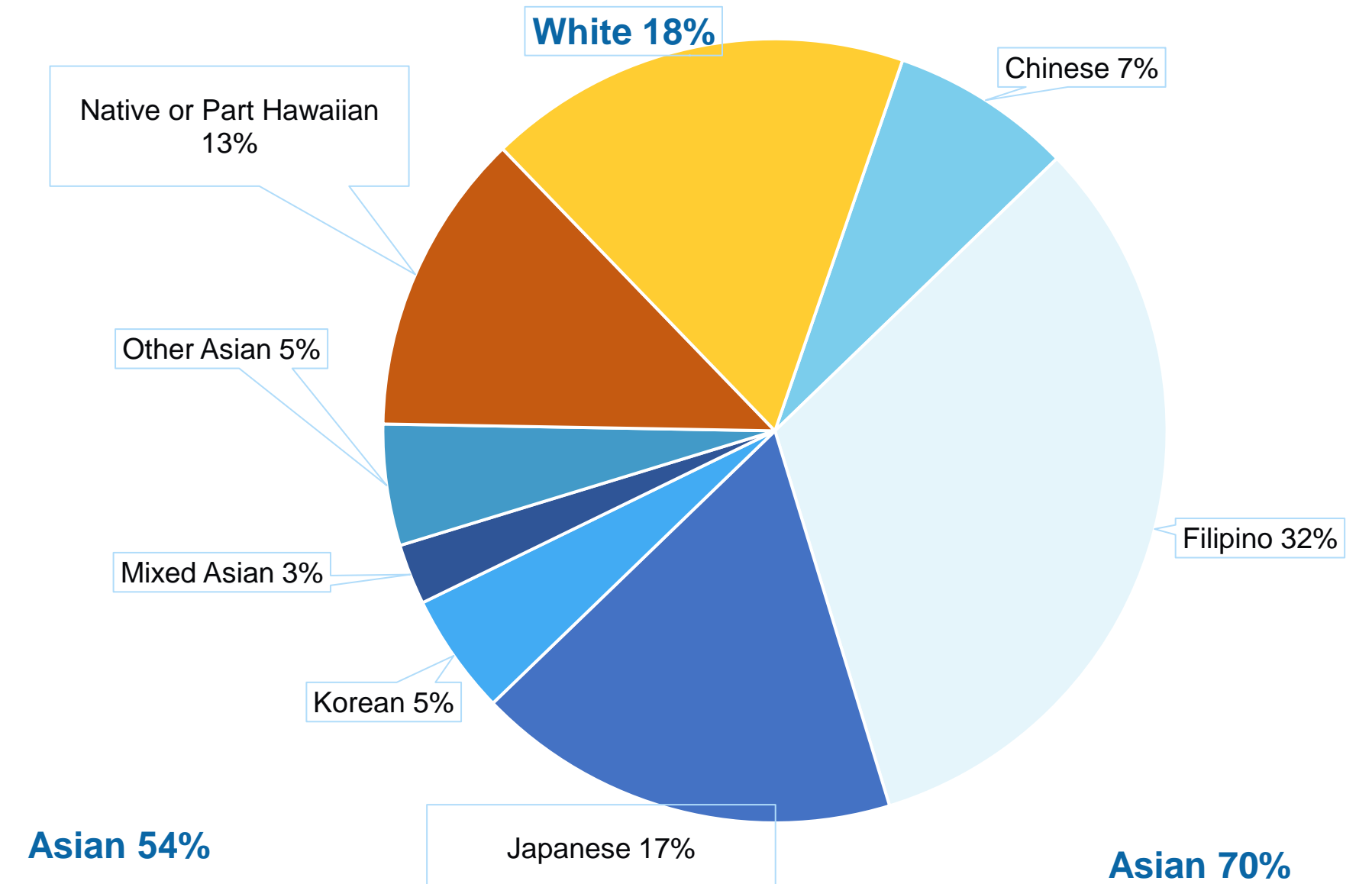


Plan to Enhance Diversity Ethnic Diversity at UHCC

UHCC Faculty Ethnicity



UHCC Staff Ethnicity



Palafox
(DEI)



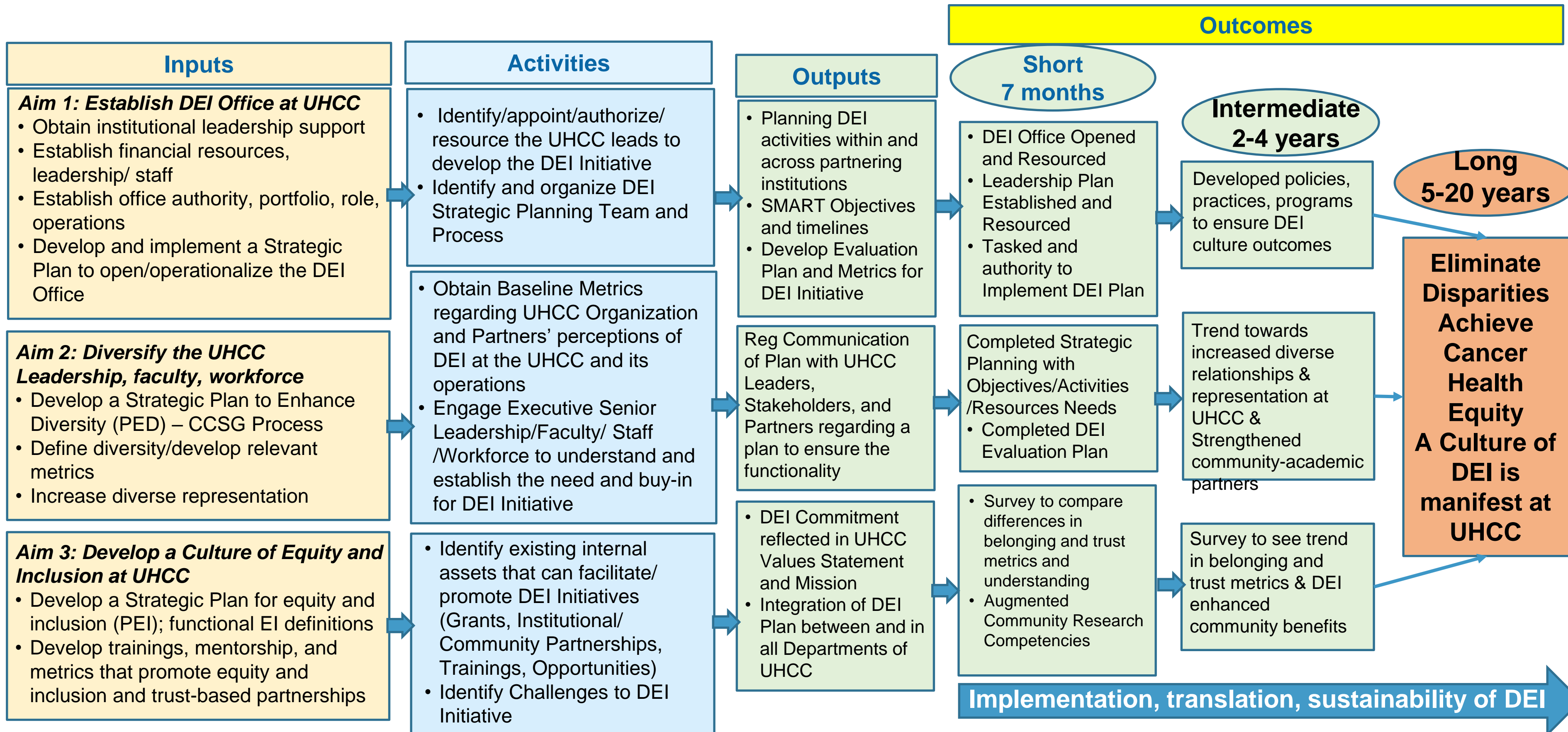
Revilla
(DEI)

UH Cancer Center DEI Initiative: Logic Model

Vision: Optimize the cancer health and well-being of the peoples of Hawai'i and the Pacific through a culture of DEI¹

Overall Objective: To Develop, Operationalize, and Institutionalize a culture of DEI at the UHCC .

Purpose: To create a culture of trust and belonging between diverse UHCC leadership, faculty, staff, workforce, and community partners which innovates research, enhances research translation, and promotes active team and stakeholder participation towards achieving cancer health equity for the diverse people of Hawai'i and the Pacific



Community Outreach

To Gain the Trust



Castle (COE)



Fukui (COE)



Herzog (COE)



Advisory to the Cancer Center



Community Advisory Board



Friends of the UH Cancer Center



Patient Advocacy Council



Native Hawaiian Community Advisory Board



Pacific Islander Community Advisory Board



Projects

Skin ✓ Van



Objectives:

To spread skin cancer awareness to the public in Hawaii through community venues. Fact sheets and sunscreen samples are to be distributed to those who stopped by the exhibits in hopes of educating the community on the importance of sun protection.

Staff:

PI – Le Marchand PD –
Cassel
CHE – TBN

Populations: Residents, tourists, parents

Partners: Friends of the UH Cancer Center, Hawaii Skin Cancer Coalition, Hawaii Comprehensive Cancer Coalition, Hawaii Dermatological Society, JABSOM DIGS

Period: 2023 - 2025



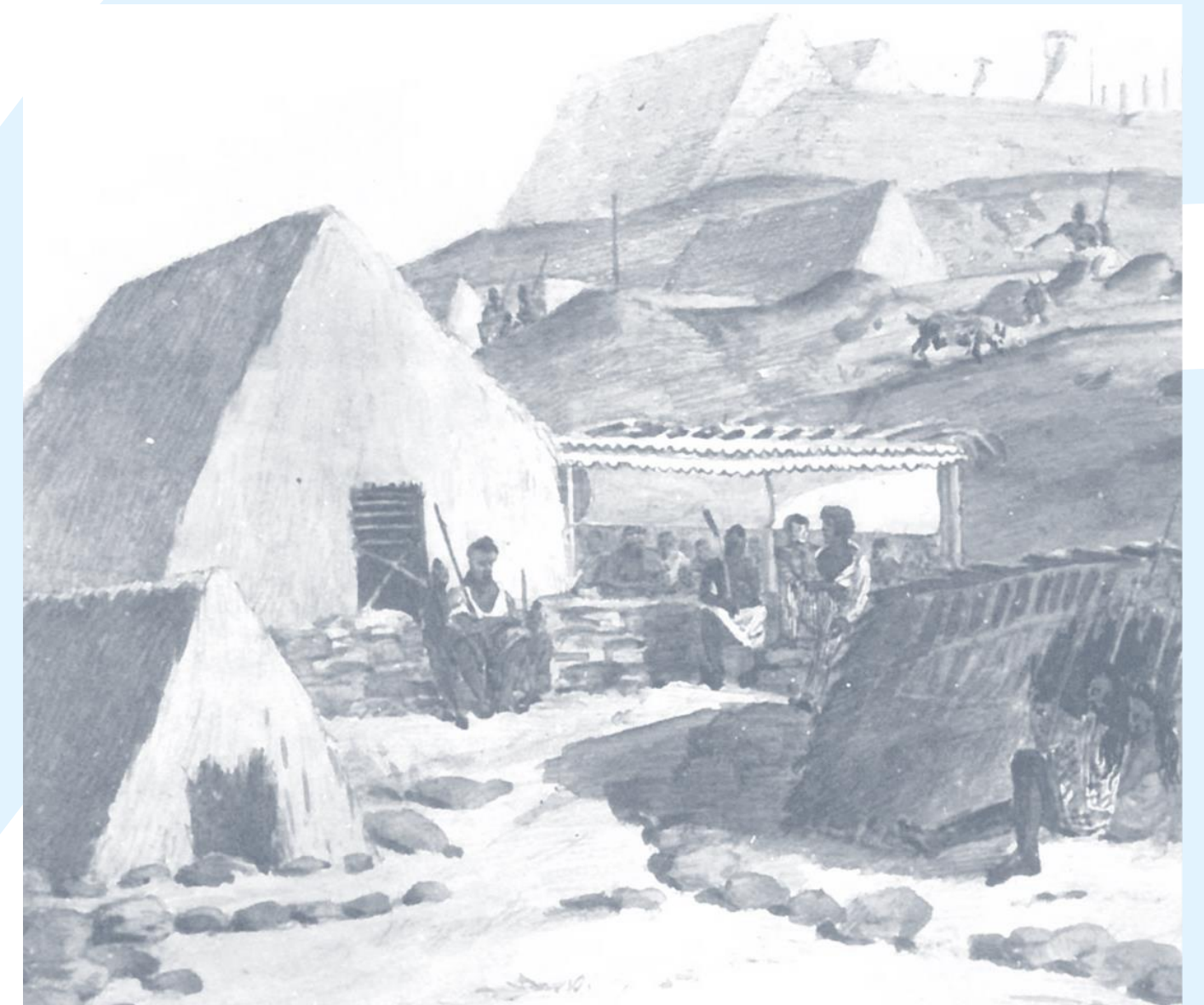
Connecting Communities with Science





Kū Ola

- Upright living
- Led by a team of health professionals and community partners,
- Collaborate with community organizations to improve the health and well-being of Native Hawaiians, especially kāne.
- Conduct evidence-based research grounded in culture. Three components of the project
 - Building Capacity in Community
 - Connecting Community with Science
 - Building Science in Community





Project Outcomes

- 378 kāne (male)
- 43 kūkākūkā (discussion groups)
- 14 community sites statewide

Colorectal discussion on traditional Hawaiian diet and health. Provided men over 50 opportunity to take FIT

232 - attended session

149 (64%) over age 50

115 (77%) - agreed to a FIT

59 - tested negative and 2 positive - referred

117 - reported as up-to-date with screening

93% - learned about colon screening/health



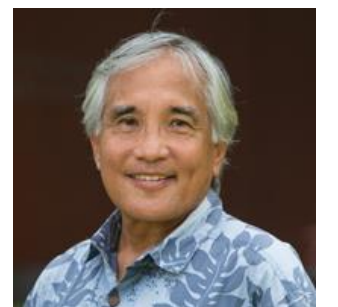
USAPI

Where do we stand?





Cancer Council of the Pacific Islands (CCPI) - 2019



Palafox



Our Impact to the USAPI

Pacific Island Partnership for Cancer Health Equity (U54)
Pacific Regional Central Cancer Registry Program

Research Collaborations:
U54 (2), CCSG, U24 CCPI, TPPCP, NCORP, HTR, PRCCR

Cancer Prevention Collaborations:
U54, CCSG, CCPI, TPPCP



UHCC/NCORP supported clinical trials network



Guam Tumor Registry

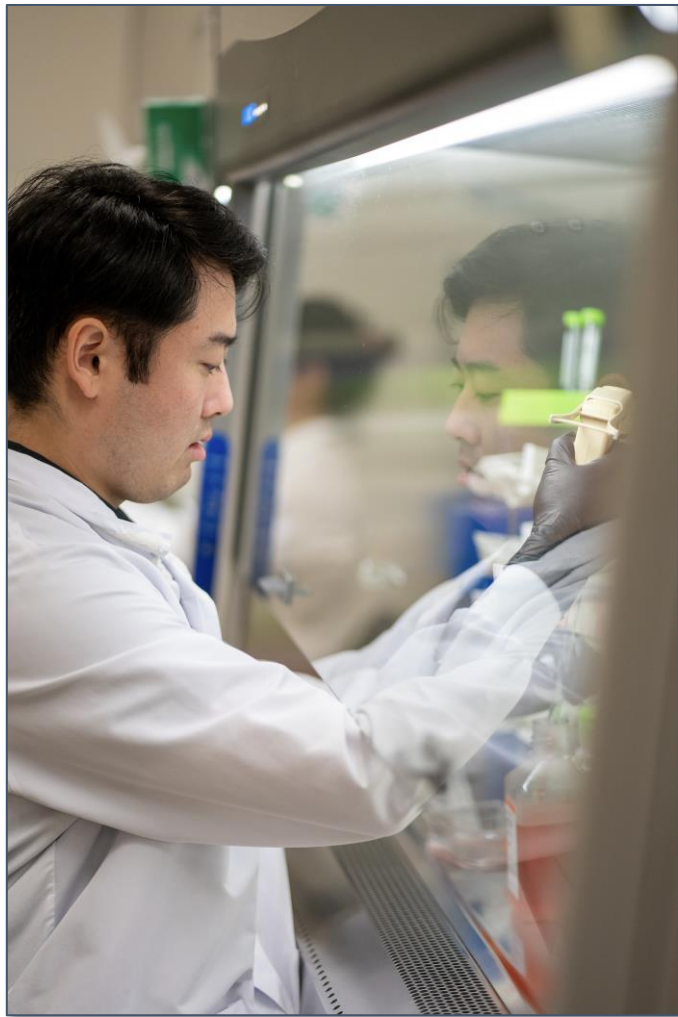


Tumor Registries across USAPI

Conclusion



Why do you need a Cancer Center?



Enhance community-centric cancer research (discovery) & care (intervention)



Improve the quality of care by enhancing clinical trial activity



Expand educational opportunities to create new researchers & clinical investigators



Improve health disparities through community outreach & engagement



Enhance our workforce diversity & address equity



A Beacon of Innovation that Drives Hope



**No matter where you live in Hawai'i, all residents deserve
Comprehensive Cancer Care without leaving the Islands**

Saving Lives in Hawai‘i and the Pacific

Aloha

Talofa

Yokwe

Alii

Håfa adai

“Extending warmth and caring with no obligation in return”





Mahalo Nui Loa!

Any Questions?



Naoto Ueno



TeamOncology, nuenojpn



*Scan QR to learn more
or visit uhcancercenter.org*

