

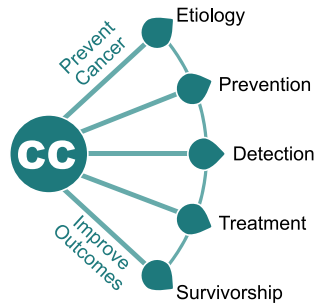
Cancer Control (CC)

SUNMIN LEE, SCD, MPH
JOEL MILAM, PHD
GELAREH SADIGH, MD

EAB 2025
MARCH 14, 2025



Objective & Specific Aims



OBJECTIVE

Foster research that identifies and reduces cancer risk and improves cancer outcomes and quality of life (QOL) for cancer patients and survivors in the CFCCC catchment area and beyond. Members conduct research that spans the cancer control continuum to identify risk factors that influence cancer; develop and test novel biobehavioral interventions to improve QOL; conduct clinical trials to improve outcomes; and address disparities

AIMS

1

Identify Cancer Risks

Identify factors that impact cancer risk and prevention

Revised from: *To identify, understand, and address risk factors and mechanisms to control cancer*

2

Improve Cancer Outcomes

Improve cancer outcomes and the quality of life of survivors

Revised from: *To improve outcomes by identifying and addressing factors that influence diagnosis, treatment and survivorship*

Program Leadership



Sunmin Lee, ScD, MPH
Co-Leader

EXPERTISE

- Professor, Departments of Medicine and Epidemiology & Biostatistics
- Asian American health disparities
- Culturally-tailored RCT
- Stress, health and social determinants
- Community-based participatory research (CBPR)

ROLES

- Cancer prevention, detection and disparities (Aim 1)
- PED Liaison



Joel Milam, PhD
Co-Leader

EXPERTISE

- Professor, Departments of Medicine and Epidemiology & Biostatistics
- Pediatric, adolescent and young adult cancer survivorship
- Psychological and behavioral adaptation to cancer
- Survivorship, health behavior, and disparities

ROLES

- Cancer survivorship and outcomes (Aim 2)
- CRTEC Liaison



Gelareh Sadigh, MD
Assistant Program Leader

EXPERTISE

- Associate Professor In-Residence, Department of Radiological Sciences
- Financial hardship, cost of care discussions
- Racial and socioeconomic factors in health disparities
- Health care utilization

ROLES

- Cancer prevention, detection and disparities (Aim 1)
- Cancer survivorship and outcomes (Aim 2)
- COE Liaison

SHARED RESPONSIBILITY

- Lead monthly program meetings and evaluate cancer relevance
- Co-develop program meetings, retreats, and activities
- Foster collaborations between Aims 1 (Identify Cancer Risk) and 2 (Improve Cancer Outcomes)
- Foster CBPR research, and assist in design and implementation of clinical studies to reduce disparities

Response to Review



STRENGTHS (2021 NIH Summary Statement)

“ This is a program with talented members, highly capable leadership, and a promising future

CRITIQUE

RESPONSE

NIH and NCI funding is low

- NCI funding has increased (66%, from \$2.22M to \$3.69M) in 2024
- Other NIH funding has increased (30%, from \$2.61M to \$3.38M) in 2024

Program Aims are broad and need to be aligned with program activities

- Aims have been revised to better align with program activities

Reduce program size (members)

- In-depth review of all members and reduction of the roster from 55 to 43 members in 2024
- Annual review of membership by CC leadership

Research: expand research on etiology, molecular epidemiology, risk factors and cancer screening; reflect catchment area priority cancers; emphasize team science

- 4 CFCCC pilot funding awards for cancer disparities
- NIH proposals are being submitted (including screening)
- New risk factor research on environmental exposures and cancer risk (e.g., PFAS, radiation, Agent Orange)
- Catchment area dashboard including social determinants of health

Improve Integration: develop clear and structured interactions with COE and CRTEC; and utilize Shared Resources (SRs) to enhance research impact

- COE, CRTEC & SRs presented at CC meetings. Sadigh and Milam serve as respective Liaisons
- 3 SRs are led by CC members
- CC members serve as CRTEC mentors on training programs
- CC members increased use of SRs in CY2024

Catchment Area: ensure bidirectional engagement with the community

- COE has helped develop culturally relevant CC research materials/protocols
- Members participate in community outreach events
- COE facilitates collaborations with Community Equity Board members and community advisors

Clinical Trial Accrual: overall accruals are low and come from a small handful of members

- Interventional trial accruals have increased (80%, from 83 to 150) in 2024
- # of PIs with open trials increased from 18 to 25; PIs with accruing trials increased from 8 to 13

Program Metrics CY2024

MEMBERSHIP

43

Members ▼


29

Departments ▲


10

Schools ▲


Member Highlight




Nyamathi, PhD
Aim 1: Awarded NCI R01CA285063 to study cervical cancer prevention



Payan, PhD
Aim 1: TRDRP award to study surveillance and implementation of flavored tobacco sales bans



Richardson, PhD
Aim 1: Publication in Lancet Haematol PMC11626443 on mortality in nuclear workers



Chan, PharmD
Aim 2: Awarded NCI R01CA276212 to study mitigating chemotherapy-related brain injury

PUBLICATIONS

179

Total Publications ▲

11%

Intra-Program

19%

Inter-Program

78%

Inter-Institutional ▲

15%

High Impact ▲

FUNDING 2/28/2025

41

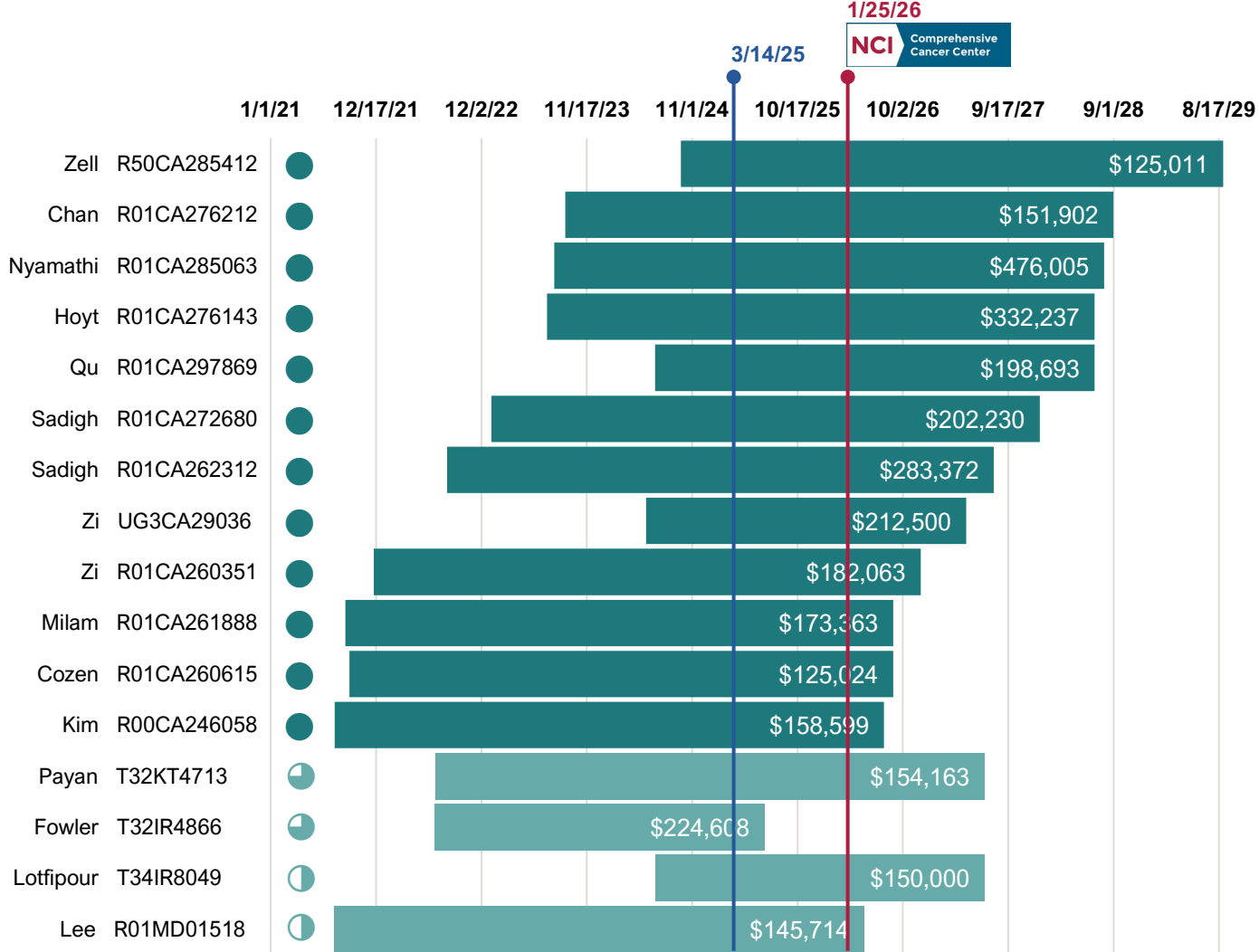
Funded Projects ▲

	DIRECT COSTS
NCI ▲	\$3,687,776
Other NIH ▲	\$3,383,296
Other Peer-Reviewed	\$1,021,194
Total Peer-Reviewed ▲	\$8,092,266

CLINICAL TRIALS

	OPEN TO ACCRUAL	ACCRUAL
Treatment Trials	1	0
Interventional Trials (including treatment)	13 ▲	150 ▲
Non-Interventional Clinical Studies	23	866 ▲

R01 Equivalent Dashboard



Cancer Relevance

Full

Projects

12

PIs

10

100%

- Funded by NIH-recognized peer-reviewed funding agencies that exclusively fund cancer research
- DoD grants directed at specific cancers
- "Cancer" in RCDC
- Cancer terms in title, abstract, etc
- Applicability to cancer is clearly described in the abstract and public health statement
- All the grant is cancer related

Partial

Projects

4

PIs

4

75%

- Cancer terms in title, abstract, etc.
- Cancer terms are not in title, abstract, etc. but the grant has significant cancer-related components
- Only minor components of the grant are not directly linked to cancer

50%

- Cancer terms are not in title, abstract, etc. but the subject on which grant focuses is used for cancer research, diagnosis or treatment
- Grant funds study of disease or risk factors that can lead to cancer

Inter-Programmatic Activity & Collaboration



Increase in genetic counsel referral rates due to updated NCCN guideline for germline testing for all PDAC patients. McLaren (CC), Lee, FC (BIDD), Dayyani (SPT), Zell (CC), & Valerin (SPT), JNCCN, 2024, PMC11462954

High-risk subtype of ALL impacts Hispanic patients disproportionately, driven by increased AID activity at the CRLF2 locus. Eng (BIDD), Valerin (SPT), Tanjasiri (CC), Seldin (SPT), Masri (SPT), Fleischman (SPT), & Pannunzio (SPT), Nature Comm, 2024, PMC11283463



MAGMAS inhibition disrupts mitochondria hindering cell growth and invasion. Fowler (CC), Bota (BIDD), PloS one, 2024, PMC11495579

Therapeutic response to treatment IIT from Zell (CC) and Hughes (BIDD) seeks to examine if patient tumor tissue can be grown on the vascularized microtumor (VMT) model (UCI 15-20)

Predicting immunotherapy response IIT from Keshava (CC) and Hughes (BIDD) seeks to predict immunotherapy response in lung CA (UCI 20-118)



Study suggests extended letermovir prophylaxis may prevent late CS-CMV in haplo-SCT patients. Jeyakumar (SPT), Kongtim (CC), Ciurea (SPT), Haematologica, 2024, PMC11532715

NLR and PLR's impact on soft tissue sarcoma outcomes with radiation therapy. Chow (SPT), Limoli C (SPT), Harris (CC), Frontiers in Oncology, 2024, PMC11484061

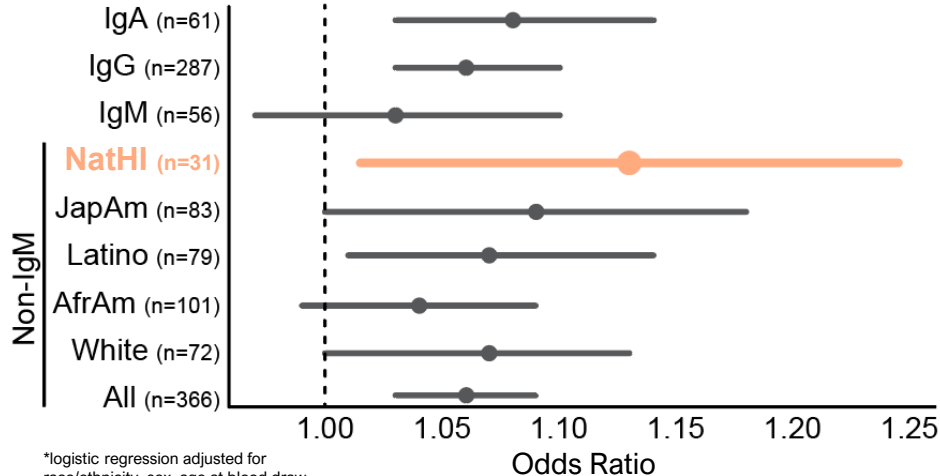
Diet studies received CFCCC pilot award, led to publication and R01 submission. Fleischman (SPT), Odegaard (CC), Whiteson (SPT)

Native Hawaiians have Second-Highest Risk of Multiple Myeloma

Distinct profile and strongest association between BMI and precursor MGUS

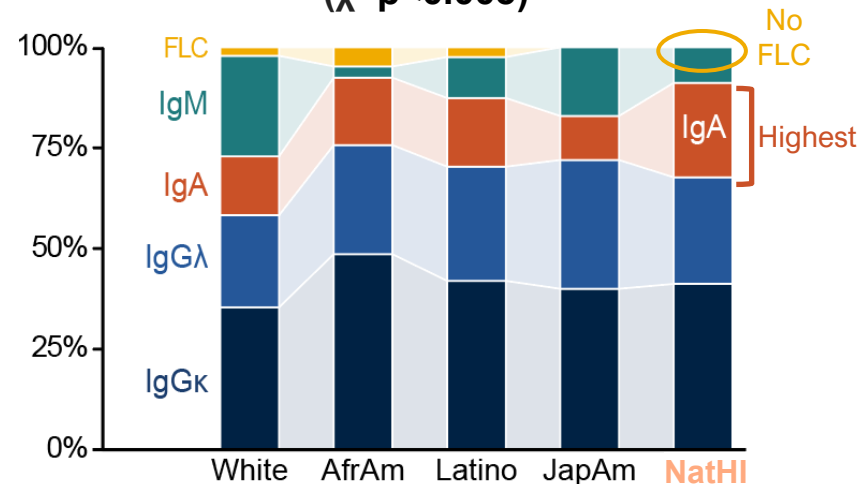
- Multiple myeloma (MM) and its precursor, monoclonal gammopathy of undetermined significance (MGUS): associated with obesity
- Native Hawaiians had the second highest risk of MM (HR=1.57, $p=0.002$) after African Americans (HR=2.7, $p<0.001$), (compared to non-Hispanic White)

Native Hawaiians have the strongest association between BMI and MGUS



*logistic regression adjusted for race/ethnicity, sex, age at blood draw
 **BMI is continuous, kg/m²

Different races/ethnicities with MGUS have different isotype profiles ($\chi^2 p<0.005$)



CATCHMENT AREA RELEVANCE



Investigators



Cozen, DO, MPH



Lee, MD

CFCCC Investments

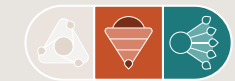
SHARED RESOURCE



DOT



PROGRAMS



Outcomes

PUBLICATION

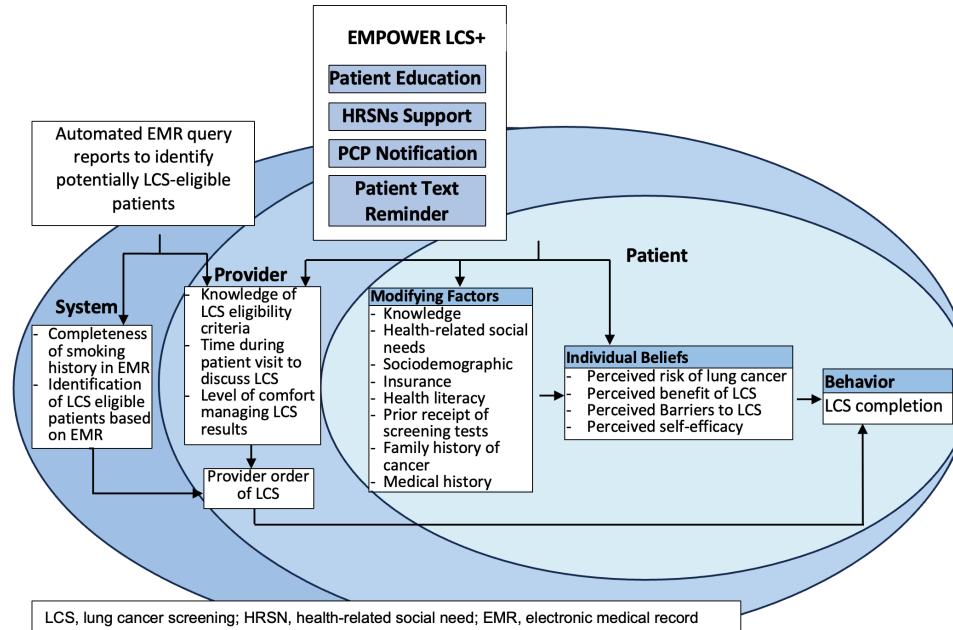
Flowers, Blood Cancer Discov, 2025, PMID39898759
 Salehi, Blood Adv, under review

GRANTS R01CA260615
 U01 CA164973

Addressing Patient-Level Barriers to Lung Cancer Screening (LCS)

Study and trial results

- **2023 ACS update** increases the number of LCS eligible patients (PMID38941769)
- **Documentation of smoking history in EMR is limited**
- **Patient-provider LCS discussions were low** (9.4%) nationwide in 2022 (PMID40044305)
- **Patient-level barriers to LCS** was reported by 54.7% of LCS-eligible individuals in UCI health with cost, lack of symptoms and fear of positive results being most common
- **Provider-level barriers to LCS** included inaccurate EMR smoking hx and limited knowledge
- **Testing 'Empower LCS', a multilevel intervention, to improve LCS in OC and among Hispanic/Latino populations**
- **Testing feasibility and efficacy of LCS of Family Members of Patients with Mutation-Driven Lung Cancer**



CATCHMENT AREA RELEVANCE



Investigators



Sadigh, MD



Keshava, MD



Hoyt, PhD



Lee, ScD

CFCCC Investments

SHARED RESOURCE



DOT



FUNDING

2020
2022
2024

PROGRAMS



Outcomes

PUBLICATION

Sadigh, Clinical Lung Cancer, 2024, PMID38522980
Sadigh, Keshava, Cancer Treatment & Research Communication, 2024, PMID39577140

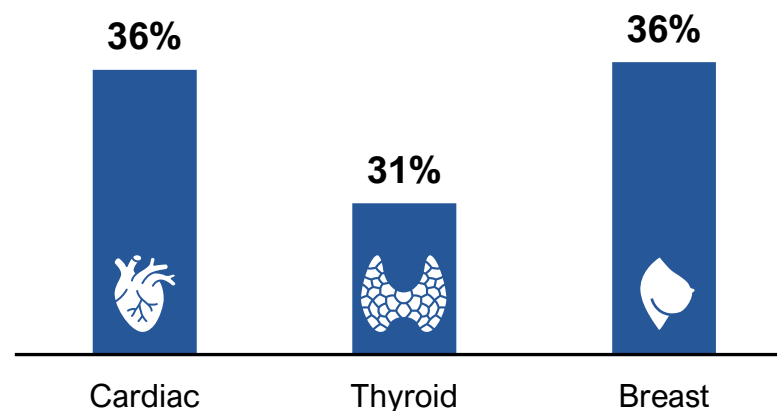
GRANTS RSNA-5709750
Norris Cancer Foundation

Adolescent & Young Adult (AYA) Cancer Survivors

2024 studies and trials include:

- **Catchment area-relevant R01s** address quality of life among long-term AYA survivors and follow-up care among Asian pediatric cancer YA survivors
- **AYA substance use was positively associated with depressive symptoms** and inversely associated with cancer-related follow-up care
- **Review of integrative oncology modalities** to improve survivorship issues among YA survivors (PMID38842014)
- AYA-specific **social media interventions should be tailored** by sex, age at dx (PMID39435701)
- **Goal-focused emotion regulation therapy reduced anxiety and depressive symptoms** among Hispanic/Latino AYA cancer survivors
- **Survivor voices** concerning long-term survivorship care

Low adherence to late effects screening among YA survivors



- **Poor late effects surveillance for YA childhood cancer survivors**, screening associated receiving education on need for follow-up care



CATCHMENT AREA RELEVANCE



AYA

Asian

H/Lat

Investigators



Chan, PharmD



Milam, PhD



Hoyt, PhD

CFCCC Investments

SHARED RESOURCE



DOT



FUNDING

2018, 2019
2020, 2024

PROGRAMS



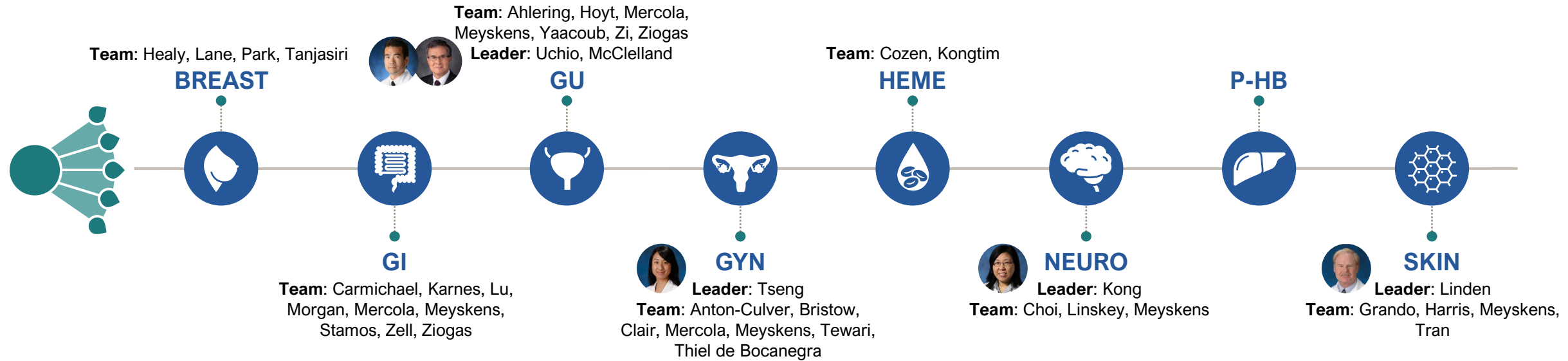
Outcomes

PUBLICATION



Hoyt, Support Care Cancer, 2024, PMC11525392
Kim, Psychosoc Oncol, 2024, PMC11415543
Milam, Ped Blood Cancer, 2024, PMC11499026

GRANTS R01CA237230
R01CA261888
R01CA276143

Disease-Oriented Team Interactions






NEW EXTRAMURAL FUNDING

-  RSNA-5709750-01 (Sadigh): Empowering Latinx patients Lung Cancer Screening Uptake (Empower Latinx)
-  H/L

SHARED RESOURCES USED



CLINICAL TRIALS OPENED

-  H/L UCI-24-128 (Hoyt): A Biobehavioral Intervention for Latino/Hispanic Young Adults with Cancer
-  UCI-23-219 (Sadigh): Empowering Hispanic Patient's Lung Cancer Screening Uptake (Empower Latino)
-  UCI-23-110 (Jafari): Impact of Personality on Adherence to Tyrosine Kinase Inhibitor Therapy in Patients with Chronic Myeloid Leukemia

Catchment Area Activities



Community Equity Board

In collaboration with COE, catchment area relevant research was presented at the community equity board meeting (2024) for their input



Culturally Appropriate Material

In partnership with COE, developed culturally appropriate research protocols/materials for multiple studies (Chan; Kim; Lee; Morey; Milam; Sadigh)



COE Events

In partnership with COE, study team for UCI-23-107 (Lung cancer screening) participated in several community outreach events to increase recruitment for the study



COE Presentation to CC

Catchment area priorities and dashboard now available to members. Presentation focused on catchment area, OC demographics, and social determinants of health

Impact of Research on the Catchment Area

PRIORITY CANCER

GRANT

PRIORITY POPULATION



Colorectal

Rural-Urban Disparities in Colorectal Cancer Screening, Diagnosis, Treatment, and Survivorship Care PMC10994268



CRC Screening is <60% in OC. Early onset incidence and mortality especially among Hispanic/Latino populations



Breast

Effectiveness of a mHealth intervention on improving adherence to oral chemotherapy in breast cancer R01CA262312 (Sadigh)



Spanish-speaking adult women with metastatic breast cancer. Hispanic/Latinas in OC have a higher incidence rate (vs. California)



Breast

Supportive care in Asian Americans with metastatic cancer R00CA246058 (Kim)



Chinese, Vietnamese and Korean-descent patients with metastatic breast cancer. OC Asian population surpasses national and state levels



Lung

Community-engaged examination of Black and Latine youth tobacco product use around activity spaces TRDRP T34CR8419H (Douglas)



Tobacco use is ~10-14% in OC. Prevention and cessation is a COE priority. Increasing incidence and mortality in Asian and Hispanic/Latino males



Contribution to Education, Training & Mentoring



Community Education

CC members participated in educational outreach events at local High Schools (AVID)



Education for URM Students

CC members provided lectures to high school students participating in the COSMOS summer program



Mentoring Medical Trainees

CC members led Cancer Clinical Trial Bootcamp sessions to mentor development of clinical trial protocols; and the Oncology Summer internship program targeting 2nd yr medical students



Mentoring Students, Postdocs & Early-Career Faculty

CC members participate in mentoring students, postdocs, fellows, and early-career faculty, including NIH Bootcamp Program. CC program leadership serves on CRTEC Steering Committee and ACS Pilot Funding Review Committee focused on early-career faculty

Bidirectional Value Added: CFCCC to CC

INVESTMENTS

\$1,513,912 Annual Investment (CY024)

Investment (2021-Present)

Recruitment/Retention	\$2,745,335
Pilot Funding	\$1,078,550
Salary support	\$464,480
IIT support (Stern)	\$19,394
SR subsidy and rebates	\$10,149
Other	\$14,667
Total	\$4,332,575

Selected New Faculty (2021-Present)



Kim, PhD



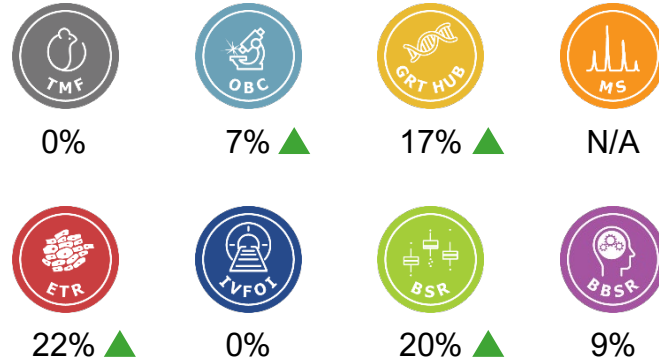
Sadigh, PhD



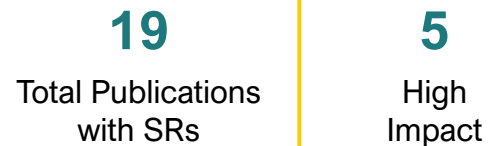
Zhang, MD, PhD²

SHARED RESOURCES

Use by CC Members



Resulting Publications



HIGHLIGHTS

- Annual CFCCC pilot awards and special funding opportunity focusing on cancer disparities
- Scientific Retreat showcasing CC member research and CC-led breakout session on Dissemination and Implementation
- Administrative support for grant submission (Lu, Kim, Harris)
- Open CC faculty searches
- Program administrative support

Bidirectional Value Added: CC to CFCCC

BY LEADERSHIP



LEE

- EDI Steering Committee
- Standing member of NIH Review Panel
- Cancer Disparities & ACC Pilot Grant reviewer



MILAM

- CRTEC Steering Committee
- Co-Director, Center for Young Adult Cancer Survivorship Research
- Cancer Disparities & ACC Pilot Grant reviewer



SADIGH

- COE Liaison
- Director of Health Services Comparative Outcomes Research (UCI)
- Chair, Publication Committee Assoc Acad Radiology

TO ACTIVITY

Membership

17%

43 of 248

CFCCC members are members of **CC**

Publications

36%

179 of 500

CFCCC publications include a **CC** author

Funding

18%

41 of 228

CFCCC peer-reviewed grants include **CC** PI

\$8.29M

of \$37.97M

CFCCC peer-reviewed grants annual direct costs include **CC** PI

HIGHLIGHTS

- Zell conducts R50 to advance cancer research across NCI Clinical Trial Networks
- Tanjasiri leads P20 Cancer Health Equity Research Partnership
- Lee leading UCI Site for U01 Asian Cancer Cohort
- Anton-Culver leads UCI Site for All of Us
- CC members lead Shared Resources (BBSR, BSR, ETR) and DOTs (GU, Gyn, Neuro, Skin)
- CC members have leadership roles in national/international cancer organizations

Future Plans

AIMS

1

Identify Cancer Risks

- Increase interventions to promote cancer screening and other healthy behaviors
- Increase focus on catchment area priority cancers
- Expand CC focus on environmental risk factors

2

Improve Cancer Outcomes

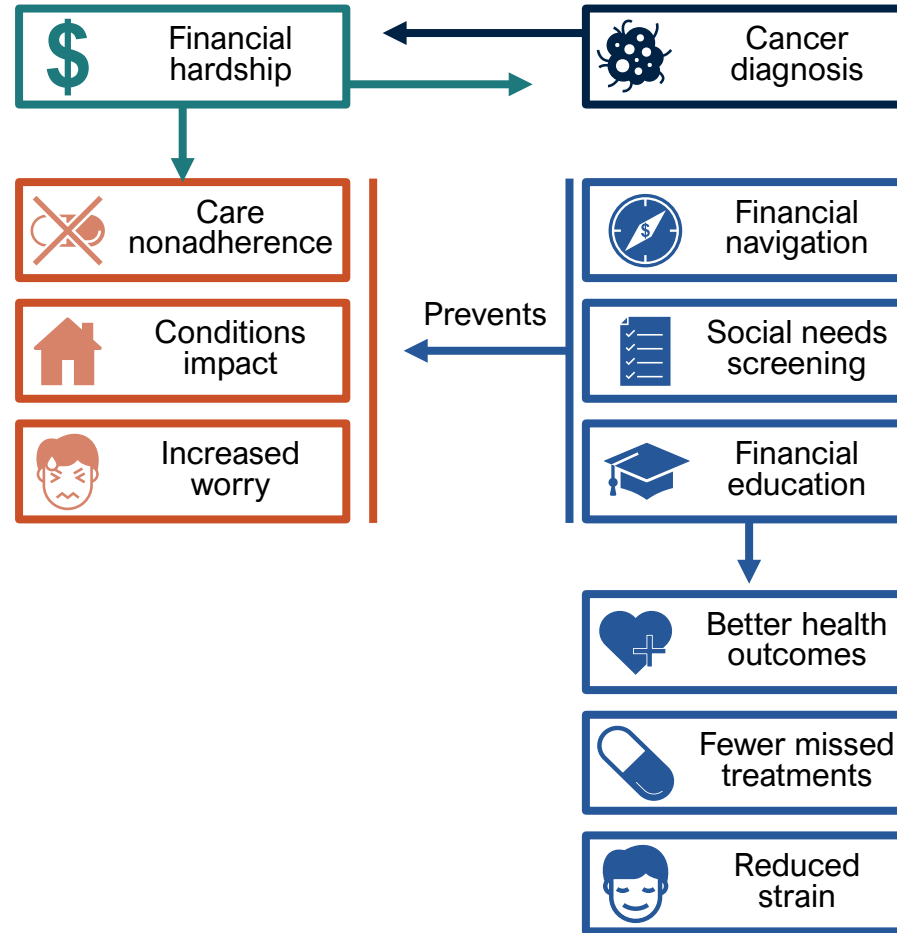
- Expand AYA survivorship research
- Expand collaborations with Samueli Institute for Integrative Medicine
- Support research focused on social determinants of health including financial toxicity

Questions?

Financial toxicity & health-related social needs in cancer patients

Our studies and trials have shown:

- **Financial hardship: common** in early-stage colorectal cancer. Worse cancer outcomes (low self-efficiency, unemployment, government insurance) (PMC10777253)
- **Financial navigation mitigates worry** in high-risk patients (PMC11347103)
- Recommended **health-related social needs screening** (PMCID11494469)
- Breast cancer patients expressed **need for financial toxicity screening** by their clinicians (PMID39288337)
- Launched an ongoing **financial navigation intervention** (R01CA272680)
- **Comparing financial education vs financial navigation** in CFCCC catchment area (CFCCC Pilot Funding)



CATCHMENT AREA RELEVANCE



Investigators



Sadigh, MD



Milam, PhD



Hoyt, PhD



Harris, MD

CFCCC Investments

SHARED RESOURCE



2023
2024



Outcomes

PUBLICATION

Sadigh, JAMA Network Open, 2024, PMC10777253 & 11409151 | Cancer, 2024, PMC11347103 | JNCI, 2024, PMC11494469 | Medicine, 2024, PMC11245238 | JCO Oncol Pract, 2024, PMID39288337

GRANTS R01CA272680