### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

## **Cancer Center Update**

Rick Van Etten, MD PhD Director, Chao Family Comprehensive Cancer Center Senior Associate Dean and Associate Vice Chancellor for Cancer University of California, Irvine

www.cancer.uci.edu

### **Today's Retreat**

- We're glad you're here!
- > 350 participants!
- The Retreat goals are communication and interaction
- Agenda

Science & Policy **Clinical presentations** CHOC Cultural Awareness & Humility in Research Lunch with discussions **Concurrent Breakout Sessions** AI Implementation Science Tumor Immunology **Community Outreach & Engagement** Shared Resources Posters & Flash Talks (\$\$\$)

### We want your input! Your feedback is important!

More science talks



**Opportunities for** student input



12:00 pm Lunch, Optional Discussion & Posters Vista Lawn



- Join us to engage with COE leaders on your projects Consult with community experts
- Collaborate and network
- Prepare for new NCI community engagement expectations
- Strengthen the community relevance of your research
- Get support for community-centered research





- Toin us to share your lived experience at UC Irvine. Your input helps us improve and create new programs
- What do you need to succeed at UC Irvine?
- How can the cancer center help you succeed?
- We look forward to hearing from you!

**Program-focused Breakout Sessions** 

### Breakout Sessions

1:30 pm Pre-Breakout Session Announcement Marian Waterman, PhD

1:45 pm Concurrent Breakout Sessions Select one to attend



Join us to discuss integration of AI into cancer research, focusing on applications in imaging and



Using Implementation Science to Accelerate Impact: Insights from Digital Health Stephen Schueller, PhD Join us to discuss the values of Implementation Science, a growing area of interest in Cancer Control with particular focus on Digital Health

2:45 pm Coffee Break

SPT

BIDD

Tumor Immunology & Novel Therapeutic Approaches Angela Fleischman, MD, PhD & John Lowengrub, PhD Join us to discuss collaborative grants with a focus on tumor immunology and novel cancer therapeutics. Come with your ideas!

#### Presentation on Al

Shorter Flash Talks



4:00 pm 4 Poster Flash Talks 09: Bye TAC: Bypassing an E3 Ligase for Target Protein Degradation

Cody Loy | PI: Darci Trader, PhD

26: Relationship Between Cytokines, Brain Derived Neurotrophic Factor, and Cognitive Impairment in Adolescent and Young Adult Cancer Patients Julia Trudeau I, Pl: Alexandre Chan, PharmD, MPH

64: Feasibility Study on the Effect of a Methionine-Reduced Diet on Serum Levels in Patients with Solid Tumors

Zhaohui Arter, MD | PI: Peter Kaiser, PhD

06: Targeting of Mitochondrial Protein Magmas Enhances Sensitivity to GBM Treatment Javier Lepe | Daniela Bota, MD, PhD

36: Empower Latinx: Empowering Hispanic Patient's Lung Cancer Screening Uptake Mahnur Bharucha | Pl: Gelareh Sadigh, MD

58: A Phase 1 Study of the Combination of Pitavastin (Pita) with Gemcitabine and Nab-paclitaxel in Patients with Unresectable Pancreatic Adenocarcinoma (uPDAC) Jennifer Valerin, MD, PhD

#### 4:30 pm Concurrent Poster Session, Reception & Awards

Poster Session & Judging Coasta

Reception & Awards Breakwater Terrace



Cultural . appropriateness

### **CFCCC P30 renewal status**

- Received official notification of renewal of CCSG on Feb. 25, 2022 – Outstanding ratings in 4 of the 6 Essential Characteristics
- Five-year funding period is through Jan. 31, 2027
- We are finishing our third year on the current grant
- Next competing renewal application will be due Jan. 25, 2026
- New CCSG guidelines coming out September 2025







### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

# **Physical Space** (*Outstanding*)

www.cancer.uci.edu

### **CFCCC** laboratory space



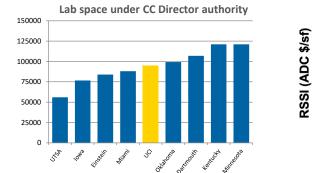
#### Sprague Hall (Irvine campus)

- 83,000 sf, vivarium in basement
- 3<sup>rd</sup> floor: Genomics Research and Technology Hub (**GRTHub**) and Biobehavioral Shared Resource (**BBSR**)
- Current occupants: 25 CFCCC members
- Current CFCCC space comparable to other NCI CCs
- Space managed by CFCCC Administration
- Additional lab space of CFCCC members ~140,000 sf
- Open space for recruitments: 6 bays, ~4,000 sf
- 20,500 sf of new space in FLF-MIB in 2025
- Commitment of additional 5,000 sf for next 5 yrs.

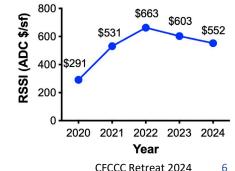


#### Shanbrom Hall (Orange campus)

- Second floor assigned to CFCCC
- ~12,000 sf, vivarium in basement
- Current occupants: Fruehauf (SPT), Zi (CC), Uchio (CC), Cozen (CC), Yu (HSCT)
- ETR TMA facility, Cell Processing Lab for HSCT Program



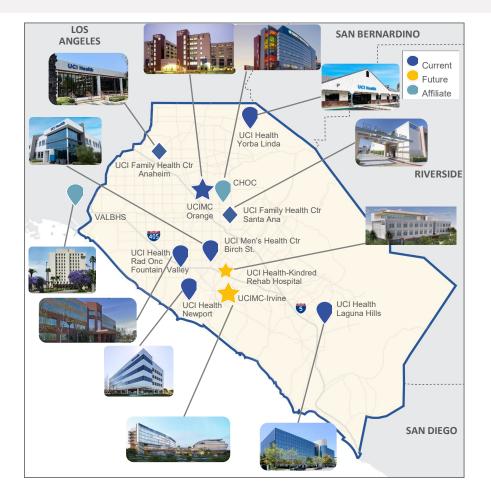
#### Research Space Support Index



### **Falling Leaves Foundation – Medical Innovation Building**



### **Cancer Center clinical & clinical research footprint across Orange County**



### **UCI Medical Center - Irvine**



Chao Family Comprehensive Cancer Center & Ambulatory Care Infusion Center opened: June 2024 All Services: July 2024

#### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

### **New Cancer Center Building on Irvine Campus**





- <sup>N</sup>cr 200,000 sf
  - Radiation Oncology
  - Advanced imaging
  - Outpatient specialty pharmacy
  - Multidisciplinary clinics
  - 50 exam rooms
  - Infusion Center (42 stations)
  - Clinical research space
  - Shelled floor for growth



### **UCI Health – Tenet Hospital Acquisition**

Placentia-Linda Hospital (114 beds)



Lakewood Hospital (172 beds)

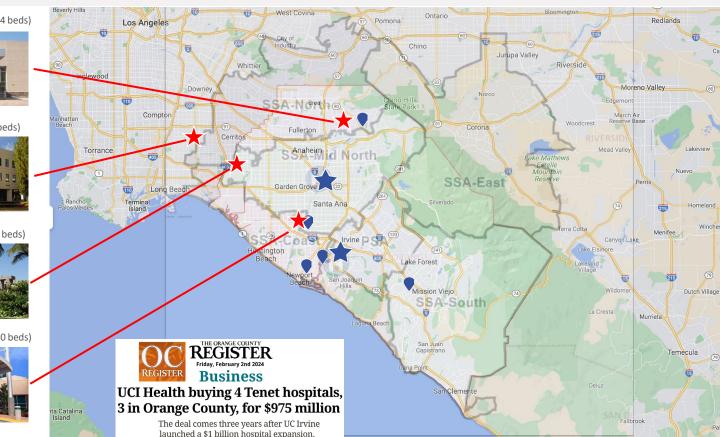


Los Alamitos Hospital (172 beds)



Fountain Valley Hospital (400 beds)





Winches

Pal

### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

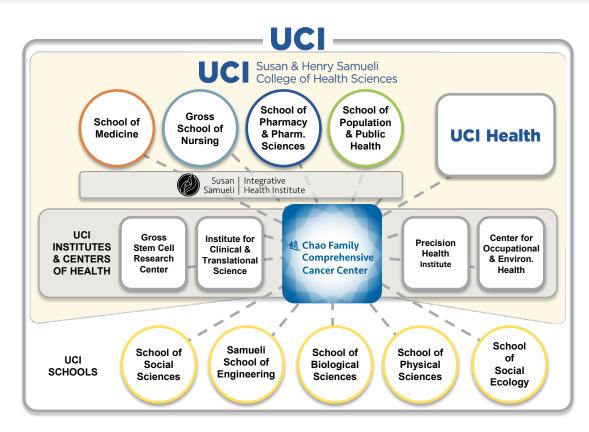
## **Organizational Capabilities** (Outstanding)

www.cancer.uci.edu

### **CFCCC Institutional Status**

### **趙 Chao Family** Comprehensive Cancer Center

- A Center within Samueli College of Health Sciences
- Status superior to a Department
- Many members in the four COHS Schools:
  - o Medicine
  - o Nursing
  - o Pharmacy & Pharmaceutical Sciences
  - Population & Public Health
- Numerous members in five other UCI Schools
- Cancer clinicians & clinical investigators practice within UCI Health
- CFCCC Director Van Etten serves as Associate Vice Chancellor for Cancer



### **Transitions in CFCCC Leadership**



Miguel Villalona-Calero, MD Deputy Director (Chief, Heme/Onc Divison)



Farshid Dayyani, MD, PhD Associate Director for Translational Science



Gary Deng, MD, PhD Associate Director for Integrative Oncology



Ursula Worsham, PhD Associate Director for Equity, Diversity & Inclusion



Marian Waterman, PhD interim Associate Director for Shared Resources

#### **CFCCC LEAD Program**

#### inaugural Deputy Associate Directors



Claudia Benavente, PhD CRTEC



Wendy Cozen, DO, MPH Pop Sci & Cancer Control



Aimee Edinger, PhD Basic Science

#### inaugural Assistant Program Leaders





### **New members of External Advisory Board**



Louis Weiner, MD Chair **Georgetown Lombardi CCC** 

John Pounardjian, MBA

Case Western CCC



Primo (Lucky) Lara, MD UC Davis CCC



Cheryl Willman, MD Mayo CCC



Christopher Flowers, MD MD Anderson CC



Kit Lam, MD PhD UC Davis CCC

Samuel Achilefu, PhD

**UT Southwestern CC** 



U Virginia CC





Kevan Shokat, PhD Michael Birrer, MD PhD UCSF Diller CCC



Amelie Rameriz, DrPH MPH UT Health San Antonio CC

Roshan Bastani, PhD UCLA Jonsson CCC





Univ Arkansas Cl



### Clinician workforce recruitment for UCI Health network

Estimated need for cancer clinicians/clinical investigators: ~36 faculty

Heme-Onc: 22 Surg Onc: 8 Rad Onc: 6



Sayeh Lavasani, MD MS **Breast Medical Oncology** City of Hope (faculty)



Shynam Srinivas, MD PhD Interventional Radiology UPMC (faculty)

Chao Family



Jorge Ramos-Perez, MD

Hematology/HSCT

Ann Arter, MD

HO/Thoracic Oncology

UCI (fellow)

Holly Yong, MD **Breast Surgical Oncology** Kaiser Permanente Comprehensive Cancer Center



Reza Nabavizadeh. MD Urology Mayo (faculty)



Brian Sworder, MD PhD HO/Lymphoma Stanford (faculty)

Poorya Vaidya, MD

HO/Melanoma

UCSD (fellow)

Neuro-oncology UCI (fellow)

Jerica Lomax, MD





Nicole Foley, MD

HO/lymphoma-HSCT

Wash U (fellow)

Michael O'Leary, MD Surgery/Hepatobiliary Loma Linda (faculty)



April Choi, MD HO/GI cancer Tufts (fellow)



Quoc-Anh Ho, MD Radiation Oncology Stanford (faculty)



Priva Mitra, MD Rad Onc USC (faculty)





Eric Chen, MD Polina Bellman, MD Rad Onc HO/HSCT Case Western (fellow) U Kansas (fellow)





Miguel Villalona-Calero, MD HO/Thoracic Oncology City of Hope (faculty)



Mohammad Ziari, MD Heme/Onc City of Hope (faculty)

### **Ongoing / Future Recruitments**

Precision Medicine / Early Phase Clinical Trials Leader Cancer Control faculty member GU oncology translational researcher Institute for Precision Health Director Pathology Chair **Radiation Oncology Chair Otolaryngology Chair** 

### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

## **Cancer Focus** (Excellent to Outstanding)

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### CFCCC extramural funding, AY 2021 vs. 2024

Funding Source	2021		2023		2024 (YTD)		
	Direct Costs	No. of Projects	Direct Costs	No. of Projects	Direct Costs	No. of Projects	
Peer-Reviewed Projects							
NCI	\$10.7M	65	\$12.5M	85	\$13.5M*	86	
Other NIH	\$13.8M	81	\$13.3M	86	\$14.8M	98	
Other non-NIH	\$6.6M	52	\$7.0M	47	\$5.7M	37	
Subtotal Peer-Reviewed	\$31.1M	198	\$32.8M	218	\$34.0M*	221	
Non Peer-Reviewed Projects							
Industry	\$10.5M	139	\$10.8M	238	\$10.0M	237	
Other	\$2.5M	31	\$2.2M	27	\$3.8M	38	
Subtotal Non-Peer- Reviewed	\$13.0M	170	\$12.9M	265	\$13.8M	275	
Grand Total	\$44.1M	368	\$45.7M	483	\$47.8M	496	

\* excluding P30 CCSG

### **CFCCC Research Programs**

### Systems, Pathways & Targets (SPT) Program (Outstanding to Excellent)

- 88 members across 6 UCI Schools and 19 Departments
- \$18.6M in grant funding, \$5.3M from the NCI
- Recruitment of numerous new members
- New research initiatives in Cancer Systems Biology, Cancer Metabolism

### Biotechnology, Imaging & Drug Development (BIDD) Program (Outstanding)

- Merger of previous OIB and MDT Programs
- 90 members across 6 UCI Schools and 22 Departments
- \$16.5M in grant funding, \$5.0M from the NCI
- Emphasis on UCI excellence in "oncology physical sciences"
- Need to identify new program co-leader

#### Cancer Control (CC) Program (Excellent to Very Good)

- Refocused from previous Cancer Prevention, Outcomes & Survivorship (CPOS) Program
- 55 members across 7 UCI Schools and 18 Departments
- \$8.1M in grant funding, \$2.6M from the NCI
- New focus on cancer prevention and outcomes







CFCCC Retreat 2024 20

### **Extramural Funding Profiles of CFCCC Research Programs**

<b>SPT</b> (45)	<b>BIDD</b> (43)	<b>CC</b> (14)
R01 Equivalent Grants   Program Area Directs	R01 Equivalent Grants   Program Area Directs	R01 Equivalent Grants   Program Area Directs
Aug 1, 21 Feb 1, 22 Aug 1, 22 Feb 1, 23 Aug 1, 23 Feb 1, 24 Aug 1, 24 Feb 1, 25 Aug 1, 25	Aug 1, 21 Feb 1, 22 Aug 1, 22 Feb 1, 23 Aug 1, 23 Feb 1, 24 Aug 1, 24 Feb	1, 25 Aug 1, 25 Aug 1, 25 Aug 1, 21 Aug 1, 22 Aug 1, 23 Aug 1, 24 Aug 1, 25
Kessenbrock   R01CA234496   100%	Balu   R01CA259019   100%	
Baker   R01CA284362   100%	Acharya   R01CA251110   100%	Chan   R01CA276212   100% \$157,540
Li   1R01CA290720-01   100%	Bota   R01CA263806   100%	
Van Etten   R01CA280606   100%	Lee   R01GM145987   100%	
Halbrook   R37CA283575   100% Pannunzio   R01CA276470   100%	Edinger   R01CA254360   100%	Hoyt   R01CA276143   100% \$332,237
Rychnovsky   R01CA283462   100%	Liu   R01CA260415   100%	
Lara-Gonzalez   R35GM150786   100%	Agrawal   R33CA267258   100%	Sadigh   R01CA272680   100% \$203,758
Buisson   RSG-24-1249960-01-DMC   100%		
Qiao   R35GM149572   100%	Bota   R01NS109423   100%	
Fleischman   R37CA271172   100%	Edinger   R01CA247556   100%	Sadigh   R01CA262312   100% \$164,789
Wang   R01GM126048   100%	Yaghmai   R01CA241532   100%	
Pannunzio   R37CA266042   100%	Ganesan   R01CA244571   100%	Zi   UG3CA290368   100% \$212,500
Masri   R01CA259370   100%	Demetriou   DISC2-13507   100%	
Zi   R01CA260351   100%	Mobley   R01GM108889   100%	
Kong   R01CA244360   100%	Xiang   R37CA240806   100%	Zi   R01CA260351   100% \$96,718
Limoli   R01CA254892   100%	Huang   R35GM145249   75%	
Buisson   R37CA252081   100%		Milam   R01CA261888   100% \$163,372
Jang   R01AA029124   100%	Balu   R01EB026705   75%	Wildini   RUICA201000   100%
Li   R01CA193466   100%	Tombola   R01GM098973   75%	
Fleischman   R01DK136069   100%	Sevrioukova   R01ES025767   75%	Cozen   R01CA260615   100% \$145,226
Lawson   R01CA237376   100%	Paegel   R35GM140890   75%	
Masri   R01CA24519   100%	Shi   DP2GM150017   75%	
Lawson   RSG-20-039-01-DDC   100%	Downing   EF-2022182   75%	Vieira   R01ES032196   100% \$133,434
Kaiser   R35GM148350   75%	Tinoco   R01Al137239   75%	
Shi   R35GM149294   75%	Pronin   R35GM153231   50%	Kim   R00CA246058   100% \$155,426
Hertel   R35GM145254   75%	Dong   R35GM127071   50%	
Dai   R35GM145307   75%	Mobley   R35GM148236   50%	
Wang   R01GM143233   75%		Milam   R01CA237230   100% \$215,975
Blumberg   R01ES031139   75%	Felgner   75N93022C00054   50%	
Walsh   INFR6.2-15368   50%	Vanderwal   R35GM145252   50%	Payan   T32KT4713   75% \$154,163
Kvon   R01HD115268   50%	Gratton   R01GM147741   50%	
Wagar   R01AI173023   50%	Flanagan   R01NS119829   50%	
Marsden   R01AI172727   50% Shi   R01AI170840   50%	Milner   R01HL163582   50%	Fowler   T32IR4866   75% \$224,608
Nie   R01AR079150   50%	Ding   DP2GM149554   50%	
Seldin   DP1DK130640   50%	Hughes   R61HL154307-01   50%	Lee   R01MD015186   50% \$234,262
Sun   R01GM141424   50%	Jarvo   R01GM135603   50%	
Andersen   R01AR056439   50%	Liu   R35GM136297   50%	
Nie   R01DE030565   50%		
Cho   R35GM139617   50%	Chen   R01EB030024   50%	
Kvon   DP2GM149555   50%	Chen   R01EB030558   50%	
Thompson   R61HL154307-01   50%	Luo   R35GM130367   50%	
Suetterlin   R01AI153410   50%		

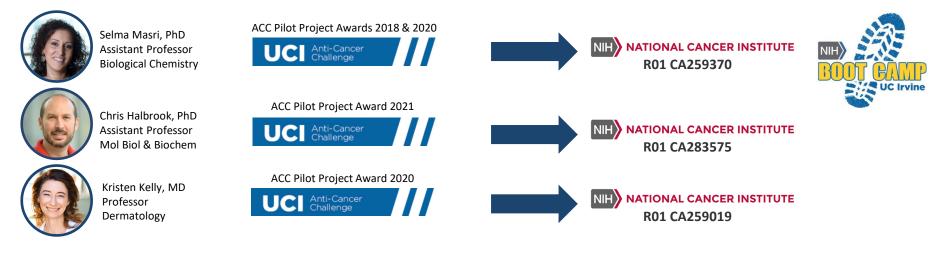


CDT (AE)

CC (1 4)

### Strategies to increase extramural peer-reviewed funding

· Assist current faculty, particularly early stage investigators, to get new extramural grants



• Hire new faculty with existing extramural grants



Wendy Cozen, DO MPH Professor Medicine R01 CA206019



Zhuoli Zhang, MD PhD Professor Radiological Sciences R01 CA241532



Wei Li, PhD Professor Biological Chemistry

### **Program publications**

	# of Pubs	Inter	Intra	Inter-Inst	High IF (>9.4)
Jan. 2023 - Dec. 2023	170	24%	8%	59%	16%
Apr. 2023 - Mar. 2024	157	24%	7%	59%	16%
Sep. 2023 - Aug. 2024	161	24%	6%	62%	18%

	# of Pubs	Inter	Intra	Inter-Inst	High IF (>9.4)
Jan. 2023 - Dec. 2023	152	20%	13%	72%	13%
Apr. 2023 - Mar. 2024	162	24%	15%	74%	12%
Sep. 2023 - Aug. 2024	174	22%	12%	73%	15%

	# of Pubs	Inter	Intra	Inter-Inst	High IF (>9.4)
Jan. 2023 - Dec. 2023	261	19%	21%	57%	26%
Apr. 2023 - Mar. 2024	233	23%	21%	59%	26%
Sep. 2023 - Aug. 2024	240	25%	19%	62%	25%



### Link to dashboards

SPT

CC

BIDD

## **Cancer Control Program**



- EAB 2024 comments:
  - Program Aims too broad and lack specificity
  - Expand research focused on etiology, risk factors, and cancer screening
  - Focus on priority cancers in the catchment area (CA)
  - Increase the number of funded R01s
  - More interventional research on areas of emphasis
- Need interventional research on cancer prevention
  - RFP for CA-relevant research including clinical trials: 4 proposals funded at \$150K/yr x 2



Hari Keshava, MD Thoracic Surgical Oncology Low-dose CT scanning and cfDNA screening in nonsmoking relatives of NSCLC patients

Need to continue to recruit additional extramurally funded members

Another mid-career/senior faculty member (FY25 FTE request)

### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

## **Transdisciplinary Collaboration & Coordination** (Outstanding)

www.cancer.uci.edu

### **Critical CFCCC Cooperative Cancer Grant Renewals**

#### Skin Biology Center (P30 AR075047; PI Andersen, SPT)

- Promoting discoveries in skin biology and disease
- CFCCC supporting a human skin tissue core and Enrichment Program
- Extensive interactions with Skin DOT and Melanoma systems biology group
- Competing renewal application submitted in May 2023, awarded 04/01/24
- CFCCC providing institutional support for pilot projects

#### Cancer Systems Biology (U54 CA217378; mPI Lander/Lowengrub/Lawson, SPT)

- One of 14 NCI Cancer Systems Biology Consortium Centers
- Focus on tumor heterogeneity and scRNASeq, quantitative models of tumor behavior
- Three interactive projects on breast cancer, melanoma, and leukemia
- U54 program sundowned by the NCI
- P01 grant submitted May 2023: Merit score 36
- P01 A1 version submitted Jan 2024, Merit score 20
- Two R01 applications for leukemia project also submitted:
  - R01 CA280606 (Van Etten)- 3% score, funded 04/01/24
  - R01 CA293425 (Lowengrub & Van Etten)- 18% score

UCI SKIN A Skin Biology Resource Center





### **CFCCC Collaborations**

#### **CFCCC** Affiliates



Site of all pediatric cancer care & clinical research COG member, pediatric HCST and Phase I site Active collaborative Working Groups in HSCT, AYA cancer, Education & Training, Research meeting quarterly

VA Long Beach Health System
 Joint faculty and CFCCC members
 Training & educational collaborations
 Research collaborations: NAVIGATE, Lung Cancer Precision Oncology

### **Other NCI CCs**

- UC Heme Malignancy Consortium Launched in 2014, rapid opening of trials across Consortium 8 trials completed, 9 open to accrual incl. UCHMC1913 from UCI (accrued 24/30 pts)
- UC Cancer Consortium

Leverage UC Care: ~25,000 new cancer patients annually WGs on clinical pathways, precision oncology, virtual 2<sup>nd</sup> opinions Disease groups: pancreatic cancer, lung cancer Director Van Etten assumed Deputy UCCC Chair position in Oct. 2024

• Other NCI Cancer Centers

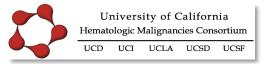
Partnerships with 12 other NCI-CCs through NCI Cancer Systems Biology Consortium Many multi-PI grants with other centers, incl FLASH Radiotherapy P01



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**Cancer Consortium** 

CANCER SYSTEMS BIOLOGY CONSORTIUM



### **Disease-Oriented Teams: Interface between basic & clinical investigators**

#### **DOT functions**

- Quarterly presentations by basic and clinical researchers
- Management of clinical trials portfolio
- Conduct 1<sup>st</sup> stage of scientific review
- DOT approval required for moving a trial to PRMC/IRB stage
- · Bring new trial concepts forward
- Foster investigator-initiated trials





# **HSCT & Cell Therapy Program**

- Launched May 2020
- Only adult transplant program in Orange County
- FACT accredited: Mar 2022
- CalOptima Center of Excellence: May 2022 CalOptima
- Cell Processing Lab opened Q2 2024
- Recruited new heme malignancy physicians



Kiran Nagyi, MD Mveloid leukemias Cathy Coombs, MD CLL

Brian Sworder. MD PhD

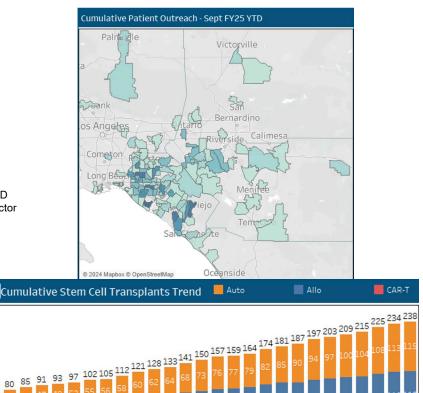
Yaya Chu, PhD Laboratory Director

Lymphoma

- Continue transplant volume increase towards 100-120/yr
- Obtain COE designation from commercial payers •
- Continue faculty recruitments (HSCT, ALL, myeloma)
- First HSCT IITs: ADAPT trial, autologous T cells vs BKV nephritis • Chao Family Comprehensive Cancer Center







Aug 2023

Sep 2023

Dec 2022 Jan 2023 Feb 2023 Mar 2023 Apr 2023 May 2023 Jun 2023 Jul 2023 Oct 2023

Nov 2023 Dec 2023

Jan 2024 Feb 2024

Mar 2024 Apr 2024 2024 2024

CAR-T

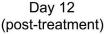
## Immuno-Oncology

- Approved as designated commercial CAR-T site
- FACT-accredited for cell therapy
- cGMP cell manufacturing facility opened Q4 2023
- First CFCCC-developed therapy: novel chimeric antigen receptor targeting cancer-specific carbohydrates
- This therapy cures multiple cancers (breast, ovarian, prostate, lymphoma) in mice
- Accepted into NExT NCI Experimental Therapeutics Program
- manufacture & testing clinical grade material for first-in-human studies (pre-treatment)
- Target phase I trial opening: Q2 2025

Chao Family Comprehensive Cancer Center

- Next investigator-initiated trials: donor  $\alpha$ -BK virus T-cells, haploidentical NK cells
- Recruiting two new immuno-oncology faculty

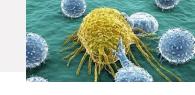
Kite



Day 6

Day 8

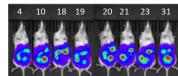
(post-treatment

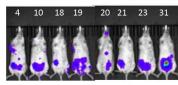


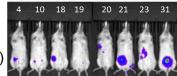




GlyTR1 + T cells + SKOV3







### **Precision Oncology**



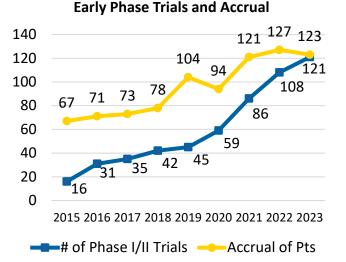
- CFCCC & UCI Health have the largest early phase clinical trials program in OC
- Joined NCI ETCTN (with UPitt)
- Joined two industry networks
- Joined the Alliance NCTN group
- Activated genomics functionality in Epic and built interface with Caris to allow tumor genetic data to be analyzed
- Recruiting a Precision Therapeutics Director (with Center for Clinical Research)
- Expanding interactions with UC Cancer Consortium
   UCI Chao Family Comprehensive Cancer Center



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**Cancer Consortium** 

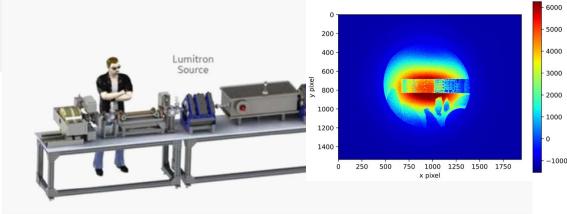


CFCCC Retreat 2024

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### **Cancer Imaging**

- Imaging at 100x resolution, 1/100<sup>th</sup> dose
- Applications in cancer:
  - Imaging
  - Cancer screening
  - Radiotherapy, incl. FLASH
- Commercialized in Lumitron Technologies
- Prototype machine being completed for DARPA
- Current machine is producing a Very High Energy Electron (VHEE)
   beam (25 MeV) suitable for preclinical studies of FLASH radiotherapy (Dr. Charlie Limoli, BIDD)
- 500 keV x-ray beam production achieved, enabling imaging studies in mice
- UCI Office of Research, Schools of Medicine and Engineering, CFCCC, and UCI Advancement negotiating agreement for purchase of second-generation machine for research/clinical applications





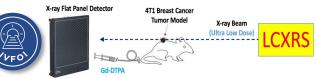
Revolutionary X-Ray Innovation Set to Transform Cancer Treatment and

**Clinical Radiography** 

Lumitron Technologies advances the practical application of FLASH radiotherapy

February 20, 2023 12:45 PM Eastern Standard Time

IRVINE, Calif.-(BUSINESS WIRE)--Lumitron Technologies, Inc., a company pioneering the development of a unique x-ray system, HyperVIEW<sup>TM</sup> EBCS, today announced its underlying accelerator technology has successfully generated electron beams that, for the first time, enable electron FLASH radiotherapy for a variety of next generation cancer treatments.





## **Integrative Oncology / Whole Person Cancer Care**





Shaista Malik, MD, PhD, MPH Director

- Susan Samueli Integrative Health Institute (SSIHI) provides inpatient and outpatient integrative medicine services for patients with cancer
  - Acupuncture, massage, mindfulness, yoga, Tai-Chi, biofeedback, nutrition
- Expanded outpatient locations in Newport Beach & Laguna Hills
- Recruited a clinician-scientist leader for integrative oncology program
  - With the Samueli Institute (endowed chair)
- Secured institutional commitments for supportive oncology services
  - dietary/nutrition, psychosocial, spiritual
- Launching interventional clinical research in integrative oncology
  - Develop evidence-based approaches to integrative health in cancer
  - ACC Pilot Project: UCI-21-33: Electroacupuncture for management of symptoms in AYA patients w/cancer
  - R01 CA276212 PIs Chan (CC)/Acharya (BIDD): Repurposing Riluzole for augmenting BDNF in chemobrain





Gary Deng, MD, PhD

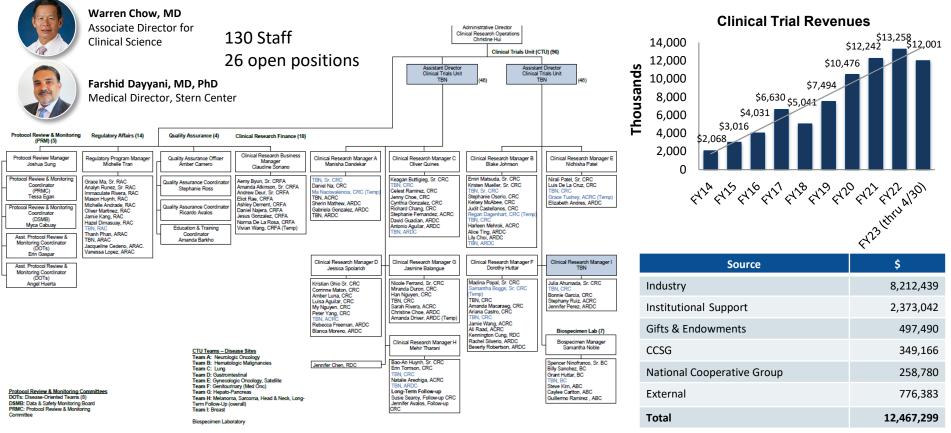


### UCI <sup>越</sup>Chao Family Comprehensive Cancer Center

# Clinical Research (Outstanding)

www.cancer.uci.edu

## **Stern Center for Cancer Clinical Trials & Research**





## **CFCCC Clinical Research summary**



Warren Chow, MD Associate Director for Clinical Science



Farshid Dayyani, MD, PhD Medical Director, Stern Center for Cancer Clinical Trials & Research





Chair, Data & Safety

**Monitoring Board** 





### Christine Hui, MPH

Administrative Director for Clinical Research Operations

John Fruehauf, MD, PhD

### The GOOD:

- Joined NCI ETCTN (UPitt); UCI had the 3 top accruers for 2023
- eRegulatory binder system (Complion)
- Increased Stern Center efficiencies
- Decreased time to trial activation
- New ClinROC oversight committee
- Two clean not-for-cause FDA audits
- Excellent accrual of URMs and older adults
- Record number of IITs open to accrual (18)
- Robust accrual to interventional trials (670 in CY23)

### The BAD:

- Static accruals to interventional treatment trials (300 in CY23)
- Decrease in accrual of women to treatment trials (~40% in CY23)

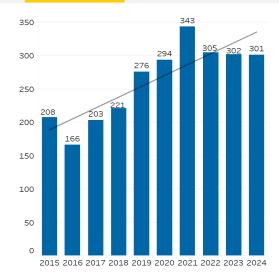
Thousands



#### **Clinical Trial Revenues**



# **Clinical Research: Corrective Action Plans**



#### 2019 2020 2021 2022 2023 2024 179 177 176 (60.5%) (59.3%)166 (51.6%) (57.7%) (48, 496)(56.1%)(58,7%) 123 (43.9%) (42.3%) 119 114 (40.7%) (39.5%) (41 396) F M F M F M F M

### **Treatment trial accruals:**

- Increase referrals from outside groups: OPN Healthcare, Oncology Institute for Hope, VAH, Kaiser-Permanente
- Opening several IITs with potential for high accrual: HSCT, gastric cancer, prostate cancer
- Reform of DOT SOPs to better match trials with patient population
- Reorganization of Phase 1 infrastructure with recruitment of Director for early phase clinical trials
- Targeted recruitment of clinician-investigators in diseases with low accrual (H&N, melanoma, Gyn)



### • Open more breast and Gyn trials targeting our patient population

• Recruit a medical oncologist specializing in Gyn cancers to oversee the Gyn DOT and clinical trials portfolio

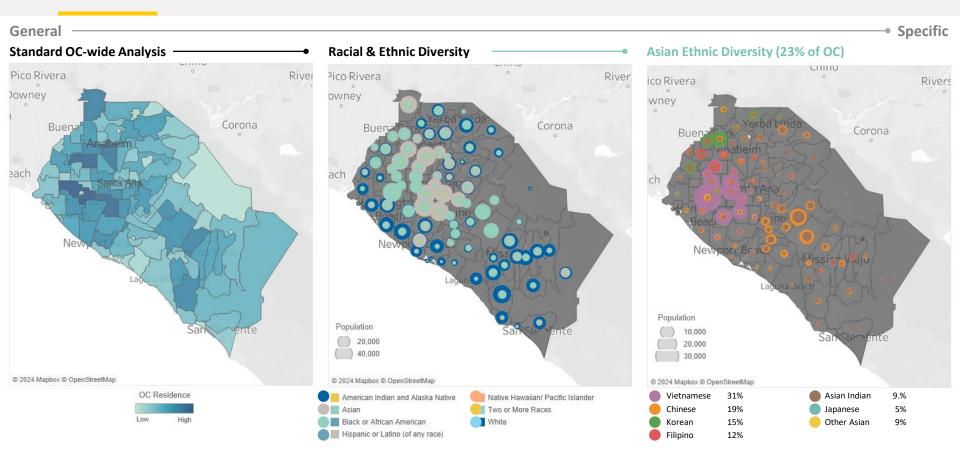
# **Community Outreach & Engagement** (Outstanding to Excellent)



### **Community Outreach & Engagement**



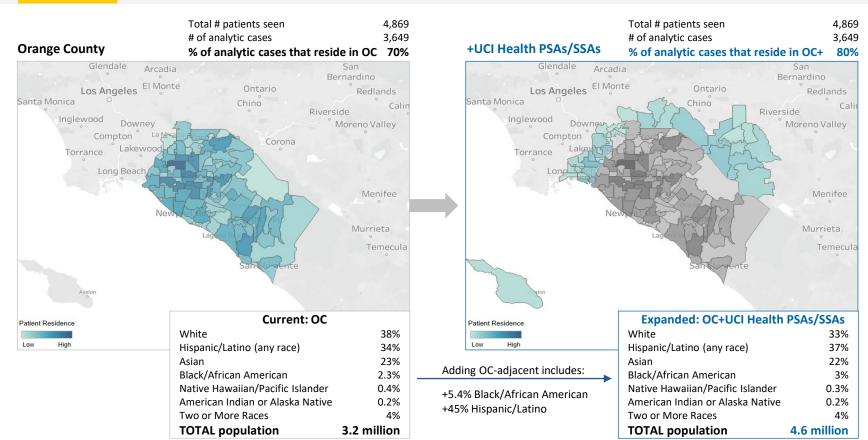
# **Understanding our Orange County community in detail**



UCI <sup>d</sup>Chao Family Comprehensive Cancer Center

# **Proposed new Catchment Area**





### **Community Outreach & Engagement – Summary**

- Active and engaged Community Equity Board
- Regular bilateral interactions with CFCCC Research Programs leading to new grants focused on Catchment Area
  - R37 CA266042 "Defining Mechanisms of Genome Rearrangements in Ph-like ALL to Determine Predictive Markers in High-Risk Hispanic Populations", PI Pannunzio (SPT)
- Multiple new extramural grants addressing Catchment Area cancer health disparities
- CFCCC/Cal State U Fullerton P20 Cancer Health Equity Research Partnership
- UCI Family Health Center awarded \$500K from HRSA for Accelerating Cancer Screening
- Define Catchment Area priorities: cancer health disparities
- Expand the Advancing Cancer Care Together program with OC FQHCs (\$5M CalOptima grant)
- Improve data collection and analysis of outcomes, starting with UCI FQHCs
- Potential collaborations with other NCI CCs in OC (e.g. City of Hope)
- Appointed COE Liaisons in the CFCCC Research Programs





Health Center Program

### **COE Liaisons**



Shawn Griffin, Pharm D Systems, Pathways & Targets



Gelareh Sadigh, MD Cancer Control



Darci Trader, PhD Biotechnology, Imaging & Drug Development



# 

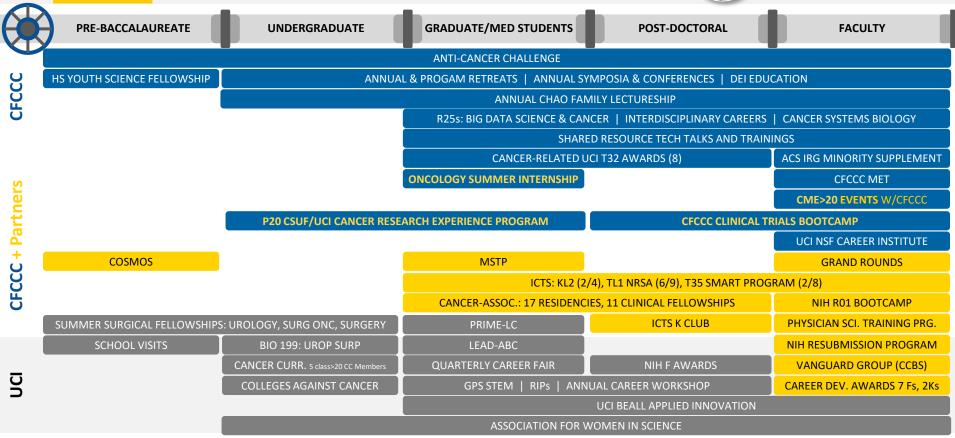
# **Cancer Research Training & Education** (Outstanding)



# **Cancer Research Training & Education**



Edward Nelson, MD Associate Director for Cancer Research Training & Education



# **Plan to Enhance Diversity**

www.cancer.uci.edu

### **Equity, Diversity and Inclusion Steering Committee**



CHAIR Associate Director EDI Ursula Worsham, PhD



#### UNIVERSITY



Vice Chancellor for Diversity Equity & Inclusion and UCI Chief Diversity Officer Dyonne Bergeron, EdD



Assistant Vice Chancellor Equity, Diversity & Inclusion Marguerite Bonous-Hammarth, PhD

#### **TRAINING & EDUCATION**



Associate Director CRTEC Edward L. Nelson, MD (BIDD)



**Co-Director, LEAD ABC** Carrol Major, MD OB/Gyn



**Co-Director, LEAD ABC** Candace Taylor Lucas, MD Pediatrics



Director, PRIME-LC Charles P. Vega, MD

#### **COHS SCHOOLS**



School of Medicine Assistant Dean DEI Ursula Worsham, EdD



School of Nursing DEI Officer

#### **COMMUNITY OUTREACH**



Associate Director COE Sora Tanjasiri, DrPH, MPH (CC)





Associate Professor of Pharmaceutical Sciences Claudia Benavente, PhD (SPT Program)

School of Medicine Office of Belonging, Equity & Empowerment Xavier Hernandez, PhD



School of Pharmacy DEI Officer Mahtab Jafari, Pharm D



Program in Pop. Science & Public Health DEI Officer Sora Tanjasiri, DrPH, MPH (CC)



Professor Epidemiology & Biostatistics Karen Edwards, PhD (CC Program)



**Professor of Family Medicine** Juliet McMullin, PhD



**Professor Epidemiology & Biostatistics** Sunmin Lee, PhD (CC)

## **CFCCC Plan to Enhance Diversity**

- CFCCC CAO with extensive experience in DEI administration and operational leadership
- CFCCC Director of Admin Programs supporting DEI efforts
- EDI Steering Committee formed Sept 2022
- Leveraging numerous ongoing SOM and UCI Diversity programs
- Anti-Cancer Challenge 2023-24 Pilot Project categories for Underrepresented Investigators, Re-entry after family care
   UCI Anti-Cancer Challenge
- Pilot Pulse Survey (Jan 2023) on Diversity, Inclusion & Belonging
- CFCCC LEAD program for leadership development
- Creation of CFCCC Plan and Metrics



Administration & Finance
April Bagaporo, MBA

**Director for Administrative Programs** 

Melanie Funes, PhD CAO & Associate Director





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# Philanthropy

www.cancer.uci.edu

## **CFCCC** Philanthropy - summary

### **Dedicated Cancer Advancement Team (6 FTE)**

- Jenn Sarrail, Denice Lanuti, Jared Bigman, Tim Preletz, Joy Kliewer, Freddy Vega
- Last 7 yrs: >\$50M raised, endowment increased from \$5M to \$32M, 6 new endowed chairs

### **UCI Brilliant Future Campaign**

- UCIMC Irvine and FLF-MIB: Raised \$26M towards cancer building and associated space
- Research Endowments: Raised ~\$25M to support cancer research

### **UCI Anti-Cancer Challenge**





- 100% dedicated to cancer research
- Overall ROI on pilot projects is ~17:1
- Collaborative agreement with CHOC
- Aldrich Park event October 5, 2024
- 2024 ACC fundraising: >\$1,500,000
- RFP will be released in December
- Gina Lee award



Executive Director of Development (Cancer) Angelique Andrulaitis

BRILLIANT FUTURE THE CAMPAIGN FOR UCI



### 11<sup>th</sup> Annual Chao Lecturer in Cancer: Feb. 27<sup>th</sup>, 2025



### Karen M. Winkfield, MD, PhD Ingram Professor of Cancer Research Professor of Radiation Oncology Vanderbilt University

Executive Director, Meharry-Vanderbilt Alliance Member, National Cancer Advisory Board

Research: Design & implementation of programs to reduce socioeconomic barriers contributing to disparate health outcomes in cancer



# **Questions?**

www.cancer.uci.edu

# **Recognition: Edward L. Nelson, MD**



### We would not be where are today without Ed Nelson...



