2026 Cohort Mentors

USC ACS CANCER RESEARCH SUMMER UNDERGRADUATE INTERNSHIP PROGRAM

Professor of Population & Public Health Sciences

Learn More

Chanita Hughes Halbert, PhD

Dr. Hughes Halbert's lab examines multilevel determinants of cancer health disparities.

Skills you will learn: Community outreach, navigation, data analysis

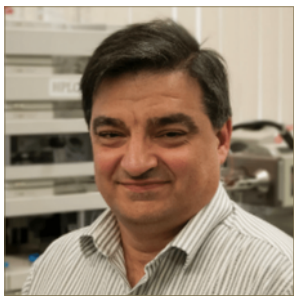
Associate Professor of Chemical Engineering and Materials Science and Gerontology

Learn More

Nicholas Graham, PhD

Dr. Graham's lab focuses on using systems biology approaches to understand cancer and other human diseases. They integrate proteomic, metabolomic and genomic data to create data-driven computational models that predict biological phenotypes across multiple components and time scales. Drawing on engineering, biology and statistics, they iterate between experimental and computational systems to formulate predictive models of cancer phenotypes.

Skills you will learn: wet lab, computational, proteomics, metabolomics, data analysis



Professor in Pharmacology and Pharmaceutical Sciences

Learn More

Julio A. Camarero, PhD

Dr. Camarero's current research interests are focused on the development of new chemical biology approaches using protein splicing and synthetic protein chemistry to study biological processes involved in cancer and bacterial pathogenicity and how they can be modulated or inhibited by small Cys-knotted microproteins called cyclotides.

Skills you will learn: wet lab, computational, proteomics, metabolomics, data analysis

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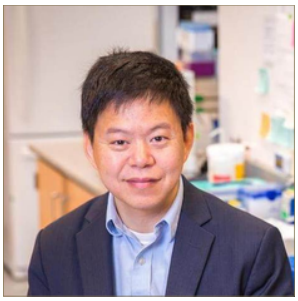

Professor of Biomedical Engineering and Molecular Microbiology & Immunology

Learn More

Peter Wang, PhD

Dr. Wang's lab has a strong CAR-T research background. A specific project they have done is on engineering non-invasive, precision immunotherapy platforms using focused ultrasound–controlled gene regulation, which enhance the specificity and safety of solid tumor targeting.

Skills you will learn: systematic knowledge of cancer research, wet lab

Assistant Professor of Ophthalmology and Biomedical Engineering

Learn More

Longwei Liu, PhD

Dr. Liu's research focuses on immunoengineering, with the goal of precisely controlling immune cell behavior for safer and more effective therapies. His lab integrates synthetic biology, gene and cell engineering, and bioengineering to create remote-controllable immune cells, including ultrasound-activated CAR-T cells and programmable gene circuits. By combining noninvasive physical stimuli with engineered immune systems, his work enables high spatiotemporal control of immune activation, reducing off-target effects while enhancing therapeutic efficacy.

Skills you will learn: wet lab

Professor of Clinical Population and Public Health Sciences and Urology

Learn More

Mariana Stern, PhD

Cancer disparities in colorectal and prostate cancer, with special focus on Latino populations. Our main focus is to understand determinants of cancer risk and cancer outcomes, focusing on lifestyle, diet, social determinants of health, and tumor characteristics.

Skills you will learn: data analysis, patient engagement, clinical research

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Professor of Biological Sciences and Chemistry

Learn More

Xiaojiang Chen, PhD

Dr. Chen's laboratory employs an interdisciplinary approach to study cancer biology (oncogenesis from DNA mutations, repair, and tumor virus infection), immune responses, and anti-cancer drug discovery.

Skills you will learn: Protein chemistry, Biochemistry, Molecular biology, Cell Biology, Structural Biology, Structure-based drug screening/design, Computational biology

Assistant Professor of Pediatrics

Learn More

JinSeok Park, PhD

Dr. Park's Lab is investigating how the physical properties of the tumor microenvironment regulate cancer cell phenotypes associated with cancer clinical outcomes.

Skills you will learn: wet lab and data analysis

Associate Professor of Research Ophthalmology and Biochemistry & Molecular Medicine

Learn More

David Cobrinik, MD, PHD

The Cobrinik laboratory studies how cancer-related mutations convert normal cells into cancer cells, focusing on retinoblastoma tumorigenesis. They study this process using stem cell derived retinal organoids that have been CRISPR edited to enable monitoring of the cancer process through live imaging and isolation of the evoving tumor cells for multi-omic analyses. Additional studies evaluate the normal retinal development pathways that sensitize to cancer mutations, which may serve human (or primate) specific roles.

Skills you will learn: wet lab research with pluripotent stem cells, CRISPR editing, retinal organoid models

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Associate Professor of Population and Public Health Sciences

Learn More

Jennifer Tsui, PhD

Dr. Tsui's research lab focuses on addressing disparities in cancer care access, quality, and outcomes through analyses of healthcare data, large cancer survivors cohorts, and development of multilevel interventions. It also focuses on studying the implementation of evidence-based strategies and approaches to improve cancer prevention and cancer care, primarily in safety-net settings such as community health centers and large county hospital networks.

Skills you will learn: data analysis, data collection, cancer health services and health care delivery research, exposure to medical records and health care claims data

Associate Professor of Research Radiology

Learn More

Bino Abel Varghese, PhD

Dr. Varghese's research focuses on improving how medical imaging is used to detect and manage breast, gastrointestinal, and neurologic cancers. His work develops practical, computer-based tools that help clinicians better identify cancer, assess disease severity, and guide treatment decisions using routine CT, MRI, and ultrasound scans.

Skills you will learn: Image processing, computational, machine learning/ deep learning, data analysis, predictive modelling, quantitative imaging and informatics

Professor of Pediatrics and Medicine

Learn More

James Amatruda, MD, PhD

Dr. Amatruda's laboratory focuses on the biology of pediatric cancers, especially sarcomas (cancers of muscle and bone) and childhood kidney cancers. They use a variety of tools, including primary human tumor genomics, single-cell and spatial analyses, cancer cell biology, imaging and zebrafish genetic models. The unifying goal of all of its work is to improve outcomes in the clinic for children with cancer.

Skills you will learn: wet lab, genetic zebrafish models, live imaging, data analysis

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Assistant Professor of Research

Learn More

Jeremy Mason, PhD

Early cancer detection via liquid biopsy and advanced computational methods. In short, peripheral blood is acquired and processed in lab for fluorescent whole slide imaging. After imaging the entire slide, we subsequently identify, characterize and classify the rare events in order to understand, characterize, and intercept the disease to improve patient outcomes.

Skills you will learn: fluorescent whole slide imaging analysis, single cell reimaging, single cell picking, big data analysis and interpretation, computational model building

Associate Professor of Research Population and Public Health Sciences and Psychology

Learn More

Raina Pang, PhD

Dr. Pang's research uses behavioral pharmacology, ecological momentary assessment, and biosensors to investigate cancer risk health behaviors (e.g., alcohol, tobacco use).

Skills you will learn: clinical research, data collection, working with participants

Associate Professor of Biological Sciences and Gerontology

Learn More

Irene Chiolo, PhD

Dr. Chiolo's lab studies how cells repair DNA double-strand breaks within heterochromatin, a large and tightly packed region of the genome that is especially prone to damage and challenging to repair. Understanding how heterochromatin is maintained and repaired is essential for uncovering the causes of cancer, aging, developmental disorders, and other diseases driven by genome instability.

Skills you will learn: Wet lab, computational, NGS data analysis, cell culturing, cell imaging

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Professor of Medicine

Learn More

Rongfu Wang, PhD

Dr. Wang's lab is working on cancer immunotherapy and therapeutic vaccines, which include TCR/CAR- T cell therapy, therapeutic peptide nanoparticles and mRNA vaccines aganist different types solid cancers. They are conducting a clinical trial using TCR-T cells.

Skills you will learn: Molecular biology, immunology skills and various assays, translational research and data analysis

Assistant Professor of Cancer Biology

Learn More

Suhn Rhie, PhD

Understanding the mechanisms of gene regulation in cancers to develop new biomarkers and therapeutic targets has been the central question for Dr. Rhie's laboratory. They use molecular biology, bioinformatics, genomics, and 3D epigenomics to answer the question.

Skills you will learn: wet lab, dry lab, molecular biology, bioinformatics, genomics, epigenomics, sequencing, data analysis, data integration, machine learning