Dear prospective MSTAR student,

Welcome to the MSTAR program at UCSF! We are a satellite program of the UCLA MSTAR training site, meaning that we enact our own research and clinical activities for students based in San Francisco, but coordinate the applications process and “big-picture” national activities with program leaders at UCLA.

**THE APPLICATION PROCESS:**

If you have not already done so, please review the following information:

UCLA (our parent site) MSTAR website: <https://www.uclahealth.org/geriatrics/mstar>.

The application deadline is March 1, 2022. Early applications may increase your chances of finding a faculty mentor.

The MSTAR program at UCSF is a mentored research experience and is open to students with an interest in aging research. In addition to the application submitted to UCLA, students who are interested in applying to the UCSF site **must also email to Elaine Chow the following:**

* Start/End Date
* Research Mentor
* Research project title

It is important to note that different MSTAR sites deal with the application process differently. For example, other sites often match students to mentors after they are accepted into the program.

**FINDING A MENTOR**

Due to the popularity and competitiveness of the UCSF program, it is highly encouraged that students seek out and start a relationship with a mentor ahead of time. It is also possible for students who have an established research mentor at UCSF to join the program *if their mentor is doing aging research*. If you have a mentor in mind who is not listed on the UCSF MSTAR mentor list, let us know and we will reach out to the prospective mentor to include him/her as a UCSF MSTAR mentor.

If you do not have UCSF mentor in mind, review the potential mentor list to find a research mentor who is doing work in an area of interest (see below). We recommend contacting the potential mentor directly to see if they have any potential projects for the summer.

In your application, we recommend that you discuss your interest and dedication to aging research and/or clinical care. If you have a project in mind, it would also be important to write about your mentor and potential project (one paragraph or so is fine and it is OK if all the particulars are not yet decided). You and a mentor can finalize the specifics of your project as the summer nears.

**THE MSTAR PROGRAM AT UCSF**

In addition to the mentored research experience, two other core elements run throughout the summer. First, we arrange a variety of clinical experiences in geriatrics and related fields for students. These vary from week to week, but typically occur on 1 to 2 half-days a week. Second, we offer a didactic program with small-group teaching and “meet-the-professor” sessions related to research and clinical care of older adults. These sessions occur on Tuesday mornings. In addition, students are required to attend the Division of Geriatrics Research Works-In-Progress conference, which occurs Wednesday mornings from 8:15 – 9:30 AM.

In the latter part of the summer, all MSTAR students at UCSF will present their research in a symposium. In addition, we strongly encourage all MSTAR students to submit their research to the annual meeting of the American Geriatrics Society, which occurs in May of each year (for example, if a student is with us the summer of 2019, they would go to the AGS meeting in May 2020). There is a special student symposium at the meeting, and it’s a great opportunity to present your research, meet other students from around the country, and get a flavor for the wider community of geriatrics and aging research.

**LOGISTIC CONSIDERATIONS**

* The MSTAR program is a **MINIMUM** of 8 weeks and a maximum of 12 weeks.
* The start and end dates of the program are flexible to account for variation in medical school schedules, but all students must be present for 7 weeks from 6/13/22 – 7/29/22.
* To allow for maximum productivity over the summer, we ask that students complete web-based research compliance trainings before starting their MSTAR experience (these trainings are required for all people at UCSF who do research). This typically involves a few hours of completing a handful of web-based courses.
* In 2021, The NIH NRSA Pre-doctoral stipend level was $4091/8 weeks. The stipend check is scheduled to arrive late June/early July, so please be sure to plan your finances accordingly (i.e. if you start June 1st, don’t expect a check the first week you are here).

If needed, you may also contact Elaine Chow, the UCSF program administrator, at elaine.chow2@ucsf.edu. Thank you for your interest in MSTAR!

**UCSF Mentor List for the MSTAR Program**

**RESEARCH MENTORS IN THE UCSF DIVISION OF GERIATRICS**

[***http://geriatrics.ucsf.edu/***](http://geriatrics.ucsf.edu/)

Theresa Allison, MD, PhD

Louise Aronson, MD, MFA

Anna Chodos, MD, MAS

Ken Covinsky, MD, MPH

Jessica Eng, MD, MS

Anne Fabiny, MD

Meredith Greene, MD, MAS

Krista Harrison, PhD

Ashwin Kotwal, MD, MS

Sei Lee, MD, MAS

John Newman, MD, MPH

Edgar Pierluissi, MD

Stephanie Rogers, MD

Janice Schwartz, MD

Alexander Smith

Michael Steinman

Rebecca Sudore

Victoria Tang

Victor Valcour

Louise Walter

Brie Williams

Michi Yukawa

**Louise Aronson MD MFA**
<https://profiles.ucsf.edu/louise.aronson>

Email: Louise.Aronson@ucsf.edu

Geriatrics, anti-ageism, public medical communication, healthy aging, optimizing aging, geriatrics education, medical humanities, writing, health and healthcare

Louise Aronson is a geriatrician and writer whose work focuses on health equity for older adults. Her current work is focused on expanding geriatric care and public perceptions of old age to more accurately attend to the decades and diversity of elderhood, developing innovative programs and practices to empower older adults to retain agency and maximize wellness as they age. These efforts include a novel clinical practice, the AGE SELF CARE group visit program, and writing for medical, policy, public health and lay presses.

**Theresa A. Allison**

<http://profiles.ucsf.edu/theresa.allison>

Email: Theresa.Allison@ucsf.edu

Theresa A. Allison, MD, PhD (Musicology), is an Associate Professor of Medicine in the Division of Geriatrics, with a secondary appointment in Family and Community Medicine. Clinically, she cares for patients in the San Francisco VA nursing home and makes house calls through the VA Home Based Primary Care program. Dr. Allison’s research integrates medical humanities and health sciences methodology to examine the role of music in daily life for vulnerable older adults. Her current research uses mixed methods to investigate the role of music in dementia caregiving relationships in the home. This summer there are possibilities for research that involves chart review, qualitative data analysis, and/or in-home assessments with people who have dementia and their caregivers.

**Anna Chodos, MD**

<http://profiles.ucsf.edu/anna.chodos>

Email: Anna.Chodos@ucsf.edu

Implementation science, older adults, primary care, safety net, socioeconomically disadvantaged groups, consult geriatrics, advocacy, writing for advocacy, poverty in older adults, interdisciplinary research collaboration, dementia, elder abuse, community-based participatory research

 Dr. Anna Chodos is interested in understanding the unmet needs of older adults who are seen in primary care in the safety net and developing high-quality programs for older adults to address these needs. She is the medical director of the outpatient Geriatrics Consult Service at Zuckerberg San Francisco General and a primary care provider at the adult medicine primary care clinic at ZSFG.

**Ken Covinsky, MD, MPH**

<http://profiles.ucsf.edu/kenneth.covinsky>

Email: covinsky@medicine.ucsf.edu

Activities of Daily Living, Frail Elderly, Geriatric Assessment, Health Status

Dr. Covinsky is interested in the broad determinants of health outcomes in older persons. He uses epidemiologic datasets to examine predictors of health outcomes, and to develop models to distinguish between elders at high and low risk of health outcomes. He is particularly interested in functional status---both in terms of understanding the determinants of functional status outcomes, and the role of functional status in predicting other health outcomes.

 Much of his work uses the Health and Retirement Study (HRS), a large study of health outcomes in US persons over the age of 50. The HRS survey provides opportunities to address a wide range of research questions in the elderly. The HRS study can be accessed at <http://hrsonline.isr.umich.edu/>.

**Jessica Eng, MD, MS**

<http://profiles.ucsf.edu/jessica.eng>

Email: Jessica.Eng@ucsf.edu

Primary care panel management of complex adults, Interprofessional team care, and Home-based care.

Dr. Eng currently serves as the Medical Director of the San Francisco VA Medical Center's PACT Intensive Management program and the Associate Director of the San Francisco VA Quality Scholars program.  Dr. Eng's goal is to build clinical programs at UCSF and the San Francisco VA Medical Center that apply geriatric principles to adults with complex serious illnesses and improve quality of life and patient outcomes.

**Anne Fabiny, MD**

<https://profiles.ucsf.edu/anne.fabiny>

Email: Anne.Fabiny@va.gov

Dr. Fabiny is a clinical administrator and program developer at the San Francisco VA Health Care System with an interest in both improving existing clinical programs for older veterans and developing new clinical programs to better meet the needs of frail, complex, older veterans.

She is currently working on several projects. One is to support the expansion and refinement of the work being done by the SFVAHCS complex care case management team, Intensive Management for Patient Aligned Care Teams (IMPACT). Our goal as a health care system is to both identify as early as we can those patients whose needs are expanding beyond the capacity of the primary care setting and provide them with assessments and supports that will enable them to live in the community for as long as possible. This includes an innovative clinic and home-visit Capacity Assessment team.

The second is the development of an intensive supportive housing site for formerly homeless, older veterans at the Colma Veterans Village built by Mercy Housing. This is a collaborative venture with the San Francisco VA HUD-VASH program, the San Francisco VA Health Care System, Health Plan of San Mateo County, the Public Housing Authority of San Mateo County, Brilliant Corners, the Town of COlma and the Archdiocese of San Francisco.

The third is helping to lead the SFVAHCS to become a formally designated Age Friendly Health System with the Institute for Health Care Improvement and the John A. Hartford Foundation.

Dr. Fabiny arrived from Boston and Harvard Medical School/Cambridge Health Alliance (CHA) in 2015. She had been Chief of Geriatrics and Medical Director of the PACE Program at CHA, a safety net public hospital. During her 20 year tenure at HMS Dr. Fabiny held clinical and educational leadership roles at Hebrew Senior Life and Beth Israel Deaconess Medical Center. She was one of the inaugural recipients of the Geriatrics Academic Career Award, a Rabkin Medical Education Fellow and a member of The Academy at HMS.

**Meredith Greene, MD**

<http://profiles.ucsf.edu/meredith.greene>

Email: Meredith.Greene@ucsf.edu

HIV, polypharmacy, patient-centered medical homes

Dr. Greene is interested in HIV, polypharmacy and geriatric conditions such as frailty in older HIV-infected adults. She is also part of a team of clinicians and researchers working to develop a Patient Centered Medical Home within the UCSF and SFGH HIV clinics for older adults. She is also interested in policy and systems issues to improve the care of vulnerable older adults, including those with HIV infection. Her current clinical work is through the UCSF Housecalls program providing medical care to homebound elderly.

**Krista Harrison, PhD**

<http://profiles.ucsf.edu/krista.harrison>

Email: Krista.Harrison@ucsf.edu

Krista Harrison, PhD, is a health services researcher focused on improving systems of palliative care for older adults with dementia and other serious illnesses who live in home- and community-based settings. Dr. Harrison is an Assistant Professor in the Division of Geriatrics within the UCSF School of Medicine, an Atlantic Fellow for Equity in Brain Health at the Global Brain Health Institute, and a Pepper Center Scholar.

Dr. Harrison completed her undergraduate degree in Biology and English at Williams College; a PhD in Bioethics, Health Policy & Management at Johns Hopkins Bloomberg School of Public Health; and a postdoctoral research fellowship in Geriatrics at UCSF. In addition, Dr. Harrison previously contributed to national program evaluations at Mathematica Policy Research and served as Director of Research and Education at Capital Caring, a large community-based non-profit hospice and palliative care provider serving the Washington DC metropolitan area.

Dr. Harrison’s goal is to build a research program that improves systems of care for vulnerable older adults with serious illness. Her work focuses on palliative care for older adults living at home with severe dementia and on improving the quality of home-based primary care and palliative care. Her expertise includes qualitative and quantitative research methods, implementation science, health policy ethics, and the translation of research to policy.

**Ashwin Kotwal, MD, MS**

Email: <https://profiles.ucsf.edu/ashwin.kotwal>

Email: Ashwin.Kotwal@ucsf.edu

Social Relationships, Health, End-of-Life, Cancer Screening, Cognition

Dr. Kotwal is a geriatrics and palliative care physician who has an outpatient palliative care telehealth clinic at the VA. He has 2 main areas of research interest:

1. Social Relationships and Health: Clinically, I’ve found that older adults’ health and patterns of health care use greatly depend on their access to high quality social relationships and their social well-being. I am currently working on projects investigating the impact of loneliness and social isolation on older adults in their last years of life. Other projects have examined social network changes among older adults with dementia, and the impacts of marriage on health and health care use.

2. Cancer Screening in Older Adults: Interests center on the epidemiology and predictors of appropriate cancer screening among older adults, including prostate cancer, breast cancer, and colon cancer screening.

My research makes use of large national datasets including the Health and Retirement Study (https://hrs.isr.umich.edu/about) and the National Social life Health and Aging Project (https://www.norc.org/Research/Projects/Pages/national-social-life-health-and-aging-project.aspx)

**Sei Lee, MD, MAS**

<http://profiles.ucsf.edu/sei.lee>

Email: Sei.Lee@ucsf.edu

Mortality prediction, Prevention, Geriatric Diabetes, Alzheimer’s Prediction

Dr. Lee has 3 main areas of research interest:

1. Individualizing Prevention:

I’m interested in determining how long after a preventive intervention (such as cancer screening) the benefits are seen.  This “lagtime-to-benefit” is unknown for intensive blood pressure control, intensive glycemic control, cholesterol lowering therapy as well as most other common preventive interventions in the elderly.  I’m also interested in predicting which patients have an extended life expectancy (so they are likely to benefit from prevention) and which patients have a limited life expectancy (so they are unlikely to benefit from prevention)

1. Geriatric Diabetes:  I’m interested in how varying levels of glycemic control affects geriatric outcomes such as incontinence, falls and functional decline in the frail elderly.
2. Alzheimer’s Dementia:  I’m interested in how newly developed markers for preclinical Alzheimer’s can help us identify which patients should get treatments to prevent Alzheimer’s.

**John Newman, MD PhD**

<http://profiles.ucsf.edu/john.newman>

https://www.buckinstitute.org/lab/newman-lab/

Email: Newman@ucsf.edu

Geriatrics, geroscience, dementia, delirium, metabolism, ketone bodies

Dr. Newman is a geriatrician and basic scientist whose laboratory at the Buck Institute studies how signaling metabolites link metabolism to aging.The ketone body beta-hydroxybutyrate is an example of a molecule with a normal role in metabolism - fuel for organs during fasting - which has a hidden life as a signaling molecule that inhibits enzymes, binds to proteins, and activates receptors to regulate gene expression, metabolism, inflammation, and senescence. The Newman Lab uses animal models, cell culture, proteomics, and other systems to understand the molecular mechanisms by which ketone bodies affect dementia and delirium. Our goal is to develop targeted therapies that can enhance the resilience of older adults to diseases like Alzheimer’s and stresses like hospitalization.

**Edgar Pierluissi, MD**

<http://profiles.ucsf.edu/edgar.pierluissi>

Email: epierluissi@medsfgh.ucsf.edu

Hospitalization-associated disability, delirium, acute care for elders

Dr. Pierluissi’s research focuses on improving care for hospitalized older adults, especially those with mild cognitive impairment and Alzheimer’s disease. Ongoing projects include promoting mobility in hospitalized older adults. Previous medical student projects have included and analysis of the effectiveness of an Acute Care for Elders Unit in a Public Hospital and Patient Expectations and Attitudes Towards Exercise in the Hospital.

**Stephanie Rogers, MD, MPH**

[**https://profiles.ucsf.edu/stephanie.rogers**](https://profiles.ucsf.edu/stephanie.rogers)

Email: Stephanie.Rogers@ucsf.edu

Prevention of harms of hospitalization (delirium, functional decline),  Acute Care of the Elderly (ACE) units, telemedicine, medical technology,  transitions of care, ageism in medicine.

Dr. Rogers' academic interests include promoting the awareness of ageism in healthcare and need for specialized geriatric care in order to foster improvements in the healthcare system, implementation of geriatric inpatient programs to ensure safety in the hospital and to prevent hospital-related functional and cognitive decline, and the implementation and testing of medical technology particularly in transitions from hospital to home.  She current is leading the Delirium Reduction Campaign at UCSF and is working to implement an Orthopedic-Geriatric co-management service for hip fracture patients.

**Janice Schwartz, MD**

<https://profiles.ucsf.edu/janice.schwartz>

Email: Janice.Schwartz@ucsf.edu

I graduated from Tulane Medical School, am a board-certified internist and cardiologist with significant experience in clinical pharmacology and geriatric medicine. My research goal has been to elucidate age-related and sex-related differences in pharmacokinetics and pharmacodynamics in order to improve medication therapy for older people. I have studied models of aging from in vitro models of cardiac changes with aging to physiologic and pharmacokinetic investigations of healthy humans to population studies of community dwelling elderly, and most recently, frail elderly people.

My current work focuses on the newer class of direct-acting oral anticoagulant medications i. Projects that will be ongoing in the summer of 2020 include:

 1) Studies of patients with non-adherence to apixaban. Focus groups willl be ongoing and a survey will be in the development stage.

 2) Collecting data on blood concentrations and effects of apixaban in patients with non-valvular atrial fibrillation randomized clinical trials: older adults (>age 75) , racial minorities, women.

**Alex Smith, MD**

<http://profiles.ucsf.edu/alexander.smith>

Email: aksmith@ucsf.edu

Palliative care, Disability, Research in diverse communities

Dr. Smith is interested in improving palliative and end-of-life care for older adults.  His current projects focus on the epidemiology of symptoms and health services utilization in the last two years of life using a nationally representative survey linked to Medicare claims data, and developing a survey of quality of life for older adults with late life disability from diverse communities.

**Michael Steinman, MD**

<http://profiles.ucsf.edu/michael.steinman>

Email: mike.steinman@ucsf.edu

Polypharmacy, Multimorbidity, Prescription Drugs, Drug Industry

Dr. Steinman's research is focused on understanding and improving the quality of prescribing for elders with multiple chronic conditions.  His research program includes studies of risk factors for adverse drug reactions in ambulatory elders; reasons why physicians do not adher to guideline-recommended practices; assessing prescribing quality and defining best practices in patients with common combinations of diseases; measurement of physician adherence to clinical practice guidelines; and developing improved methods for assessing multimorbidity and the burdens of having multiple chronic conditions.  In addition, Dr. Steinman maintains an active research interest in the impact of pharmaceutical industry marketing on physician prescribing behavior.

**Rebecca Sudore, MD**

<http://profiles.ucsf.edu/rebecca.sudore>

Email: rebecca.sudore@ucsf.edu

Advance Care Planning, Decision Making, Health Literacy, Advance Directives

Dr. Sudore’s primary research focus is on improving advance care planning and medical decision making for vulnerable older adults with limited health literacy. She has designed and tested an informed consent process for patients with limited literacy and an advance directive that is both literacy and culturally appropriate. Her current work calls for a shift in advance care planning from DNR/DNI checklists to preparing patients and their loved ones for medical decision making. Her current research program is focused on designing and testing interactive, literacy-appropriate, web-based interventions to prepare patients and their surrogate decision makers to make difficult medical decisions.

**Victoria Tang, MD, MAS**

http://profiles.ucsf.edu/victoria.tang

Email: Victoria.tang@ucsf.edu

Advance care planning, Decision making, Geriatrics, Surgical care, Geriatric surgery, Hospitalization, Frailty, Functional status, Health services research, Pre-habilitation, Pre-operative care, Implementation science, Quality of life, Clinical epidemiology, Social Vulnerability

Mass Screening, Prostate Neoplasms, Prostate-Specific Antigen, Life Expectancy, Comorbidity

Title of Project: Use and Outcomes of Prostate-Specific Antigen (PSA) Screening in Older Men

The goal of this project is to quantify the real world downstream consequences of PSA screening and monitoring in older men and how these consequences differ according to life expectancy. For example, we do not know how to best individualize decisions about PSA monitoring in older men who have undergone curative treatment for prostate cancer and how outcomes of PSA monitoring in these men differ according to life expectancy. This study makes innovative use of VA and Medicare claims-based data and electronic health records to determine factors associated with PSA screening and monitoring and the downstream consequences following PSA testing in elderly men across a spectrum of advancing age and comorbid illness. This is an ongoing study in which students may participate in a structured review of the literature, in analyses of existing data, and in potentially reviewing some medical charts to understand the real world burdens following PSA testing in older veterans.

**Victor Valcour, MD, PhD**

<http://profiles.ucsf.edu/victor.valcour>

Email: vvalcour@memory.ucsf.edu

Please look at our website for more information: www.ValcourLab.ucsf.edu

Aging with HIV, Cognitive and psychiatric disorders in HIV, Geriatric Syndromes in HIV, International research (Africa, Asia)

Dr. Valcour’s research interests have two major emphases. His primary work addresses how HIV effects the brain and particularly how this is changed when HIV+ patients age into old age. He runs international protocols in Asia and Africa. Local work is done in a cohort of HIV+ patients over 60 years of age. His work is embedded in the Memory and Aging Center/UCSF, allowing mentees broad access to observing clinical and research evaluation in all forms of dementia syndromes. Dr. Valcour has had MSTAR mentees for the past 15 years addressing risk factors for cognitive impairment in aging HIV patients, psychiatric comorbidity and medication. New work addresses geriatric syndromes and frailty. In addition, he is the Executive Director of the Global Brain Health Institute and the Atlantic Fellows for Equity in Brain Health program, which has trained 85 inter-professionals from 29 countries to reduce the impact of dementia globally.

**Louise Walter, MD**

<http://profiles.ucsf.edu/louise.walter>

Email: Louise.Walter@ucsf.edu

Mass Screening, Prostate Neoplasms, Prostate-Specific Antigen, Life Expectancy, Comorbidity

Title of Project: Use and Outcomes of Prostate-Specific Antigen (PSA) Screening in Older Men

The goal of this project is to quantify the real world downstream consequences of PSA screening and monitoring in older men and how these consequences differ according to life expectancy. For example, we do not know how to best individualize decisions about PSA monitoring in older men who have undergone curative treatment for prostate cancer and how outcomes of PSA monitoring in these men differ according to life expectancy. This study makes innovative use of VA and Medicare claims-based data and electronic health records to determine factors associated with PSA screening and monitoring and the downstream consequences following PSA testing in elderly men across a spectrum of advancing age and comorbid illness.  This is an ongoing study in which students may participate in a structured review of the literature, in analyses of existing data, and in potentially reviewing some medical charts to understand the real world burdens following PSA testing in older veterans.

**Brie Williams, MD, MS**

<http://profiles.ucsf.edu/brie.williams>

Email: brie.williams@ucsf.edu

Prisoners, Prisons, Geriatric Assessment, Activities of Daily Living, Terminally Ill

Dr. Williams works with collaborators from the criminal justice, correctional health and legal fields to apply the principles of geriatrics and palliative medicine to transform the care of older adults in the criminal justice system. Her current research focuses on understanding the nature, prevalence, and healthcare utilization consequences of multi-morbidity, distressing symptoms, and functional and cognitive impairments in older jail inmates

**Michi Yukawa, MD, MPH**

http://profiles.ucsf.edu/michi.yukawa

Email: Michi.Yukawa@va.gov

Dr. Michi Yukawa is an Associate Clinical Professor in the Division of Geriatrics and a Medical Director of Community Living Center (CLC) San Francisco VAMC.

Dr. Yukawa is a graduate of Brown University School of Medicine, and she completed Internal Medicine residency at Miriam Hospital, one of the teaching hospital for Brown University. In addition, Dr. Yukawa holds a Masters in Public Health from the Harvard School of Public Health. She practiced primary care medicine in Boston before she participated in a Geriatric Medicine Fellowship at University of Washington. Dr.Yukawa was a member of the faculty in the Division of Gerontology and Geriatric Medicine at the University of Washington from 2000-2010. Dr. Yukawa joined the Division of Geriatrics of UCSF in October 2010 as an Associate Professor. She is interested in teaching and improving the care of older adults particularly around nutrition and prevention of malnutrition and weight loss.

Clinical
Dr. Yukawa is committed to serving as the Medical Director for the Community Living Center (CLC) at the San Francisco VAMC and to working with others to provide compassionate and comprehensive care to the veterans. She also supervises geriatric medicine fellows in Geriatric Medicine outpatient clinic at the VAMC, and she attends on inpatient medicine service at the San Francisco VAMC. Her role includes leadership of the CLC in the Geriatrics and Extended Care Service Line and participation in the academic activities of the Division of Geriatrics.

Research
Dr. Yukawa’s research interests include improving nutrition, preventing weight loss and improving perioperative care of older adults. She conducted several clinical trials while she was at University of Washington and she hopes to collaborate with others to pursue her research interests at UCSF. Her educational interests revolve around chronic illness management of geriatric patients in various settings: outpatient, inpatient and skilled nursing facility. She leads the geriatric section of Life Cycle course to educate second year medical students about geriatric syndromes and management of older adults. In addition, she directs the fourth year medical student elective in geriatric medicine. She hopes to collaborate with educators within the Division of Geriatrics and other department to develop innovative methods to teach medical students, residents and geriatric fellows about management of geriatric patients.

**RESEARCH MENTORS IN OTHER UCSF DIVISIONS AND DEPARTMENTS**

Michelle Arkin, PhD

Mary Helen Barcellos-Hoff, PhD

Deborah Barnes, PhD, MPH

Mallar Bhattacharya, MD

Peggy Cawthon, PhD

Beth Cohen, MD, MAS

Lisa Ellerby, PhD

Sarah Hooper, JD

Alison Huang, MD, MAS

Lauren Hunt, PhD, RN, FNP

James Iannuzzi, MD, MPH

Jennifer Lai, MD

Sara LaHue, MD

Courtney Lyles, PhD

Anil Makam, MD, MAS

Bruce Miller, MD

Jean Nakamura, MD

Urmimala Sarkar, MD

Anne Suskind, MD MS

Melisa Wong, MD, MAS

Kristine Yaffe, MD

Andrew Yang, PhD

**Michelle Arkin, PhD**

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Drug discovery, chemical biology, screening, neurodegeneration, fibrosis, cancer

Dr. Arkin is a chemical biologist in the department of pharmaceutical chemistry. Her lab develops biochemical and cellular assays to measure how proteins are dysregulated in age-related diseases, and then develops drug-like molecules that may alter the course of the disease. The lab specializes in ‘challenging’ or ‘undruggable’ targets, like protein-protein interactions and disordered proteins. The group is highly interdisciplinary, including biochemistry, biophysics, chemistry, high-throughput screening, and fragment-based discovery.

**Mary Helen Barcellos-Hoff, Ph.D.**

<https://cancer.ucsf.edu/people/barcellos-hoff.mary-helen>

<https://barcelloshofflab.ucsf.edu/laboratory-dr-mary-helen-barcellos-hoff>

Email: Maryhelen.barcellos-hoff@ucsf.edu

Cancer biology, aging, radiation therapy, carcinogenesis, TGFbeta

I am a cancer and radiation biologist who studies radiation as a cancer therapy and as a carcinogen of breast. We use mouse models, human cells and tumors, molecular and cell biology methods and bioinformatics to investigate the responses to ionizing radiation that determine cancer frequency or treatment response. We focus on the activity of transforming growth factor beta (TGFβ), whose activity is induced by radiation, and its roles in the DNA damage response, immunosuppression and inflammation. In regards to aging, we have a large collection of blood, plasma, bone marrow, spleen and tumor specimens collected from mice as a function of age at irradiation spanning the lifetime of female Balb/c mice. We are conducting multi-omic analysis of these to frame a more comprehensive view of aging per se in females and how it is perturbed by radiation and systemic inflammation.

**Deborah Barnes, PhD, MPH**

<http://profiles.ucsf.edu/deborah.barnes>

Email: deborah.barnes@ucsf.edu

Dementia, Cognition Disorders, Risk Factors, Prevention, Epidemiology

Dementia, Cognition Disorders, Risk Factors, Prevention, Epidemiology

Dr. Barnes is a Professor with the UCSF Weill Institute for Neurosciences, Departments of Psychiatry and Epidemiology & Biostatistics; a Research Health Science Specialist with the San Francisco VA Health Care System, and a Senior Investigator with Tideswell at UCSF. She is also affiliated with the UCSF Osher Center for Integrative Medicine. Dr. Barnes' research focuses on identification of factors that may increase or decrease dementia risk; development of risk prediction models for cognitive impairment and dementia in older adults; and evaluation of potential strategies to prevent, delay onset or ameliorate symptoms of cognitive impairment and dementia. She is particularly interested in the potential protective effects of physical, mental and social activity. She developed the Preventing Loss of Independence through Exercise (PLIÉ) integrative group movement program for people living with dementia (https://plie4dementia.com/) and is currently conducting studies of PLIÉ in people with mild cognitive impairment, implementation of PLIÉ in VA Community Living Centers (nursing homes), and livestreaming virtual group program delivery. In addition, she has developed and is testing a tool that uses electronic health record data to identify patients with undiagnosed dementia (EHR Risk of Alzheimer's And Dementia Assessment Rule, eRADAR).

**Mallar Bhattacharya, MD**

<https://bhattacharyalab.ucsf.edu>

<https://profiles.ucsf.edu/mallar.bhattacharya>

Email: mallar.bhattacharya@ucsf.edu

Dr. Bhattacharya is a pulmonary and critical care doctor and basic scientist whose laboratory at UCSF Parnassus studies how aging and cellular senescence affect the fibrotic response to lung injury and infection. Injury to the lung induces a cellular senescence profile that is associated with immune activation, which in turn feeds back to activate fibroblasts and induce lung scarring. Our lab explores how immune cells regulate both activation and senescence of lung fibroblasts. This research will help to elucidate why aged individuals are more vulnerable to severe lung injury in the setting of critical illness and to identify new molecular targets for therapies.

**Peggy Cawthon, PhD, MPH**

<https://profiles.ucsf.edu/peggy.cawthon>

Email: peggy.cawthon@ucsf.edu

Dr. Cawthon is PhD epidemiology who is Senior Scientist at California Pacific Medical Center/Sutter Health and adjunct faculty at UCSF. She leads many large cohort studies on aging and musculoskeletal health in older adults including MrOS, SOF, SOMMA, and MOST. She often mentors junior scientists in the use of these data. Dr. Cawthon’s research particularly focuses on sarcopenia, and she has led the development of definitions for this condition.

**Beth Cohen, MD, MAS**

<http://profiles.ucsf.edu/beth.cohen>

Email: beth.cohen@ucsf.edu

Coronary Disease, Afghan Campaign 2001-, Iraq War, 2003-, Stress Disorders, Post-Traumatic

Dr. Cohen studies the effects of posttraumatic stress disorder (PTSD) on physical health, particularly cardiovascular health. Dr. Cohen is principal investigator of the Mind Your Heart Study, a prospective cohort study of veteran patients designed to understand the mechanisms through which PTSD damages physical health. She is also interested in how PTSD affects health as patients age, and is exploring the impact of PTSD on physical and cognitive function.

**Lisa Ellerby, PhD**

<https://www.buckinstitute.org/lab/ellerby-lab/>

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Many diseases that impact brain function develop during aging and affect the quality of life and our ability to live a successful healthy lifespan. These neurological diseases include Huntington’s, Alzheimer’s, and Parkinson’s. The Ellerby lab focuses on understanding the fundamental mechanisms that lead to age-related neurodegenerative diseases and identifying new therapeutic targets for these diseases. We are excited to use new technologies to interrogate why these neurological diseases are so abundant as we age and identify small molecule or protein therapeutics for these diseases. Induced pluripotent stem cells (iPSC) derived from patient cells, genomics, proteomics, small molecule screens, single cell analysis, and CRISPR/Cas9 are all technologies applied to deepen our understanding of these diseases and aging.

**Sarah Hooper, JD**

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Sarah Hooper is the Executive Director of the UCSF/UC Hastings Consortium on Law, Science & Health Policy and Adjunct Professor of Law at UC Hastings College of the Law. Through the Consortium, she develops interprofessional programs for faculty and students, including educational curricula and degrees, joint research, and clinical training and service programs. In particular, Sarah led the Consortium’s effort to establish the Medical-Legal Partnership for Seniors clinic (MLPS) and now as its Policy Director is working to scale the model locally and nationally.

Sarah’s research focuses on legal issues in aging and dementia care, including health care decision making and informed consent, capacity, elder financial abuse, the link between health and access to civil justice, and models of comprehensive and coordinated care. She is a 2018 Leaders for Health Equity Fellow with George Washington University.

Sarah teaches or has taught "Elder Law & Policy," “Law of End of Life Care,” “Medical-Legal Partnership for Seniors Seminar,” “Concentration in Law & Health Science Seminar,” "Health Law: Research Compliance & Ethics" and “Master of Studies in Law for Healthcare Providers Seminar” at UC Hastings and is a frequent guest lecturer at UCSF.

**Alison Huang, MD, MAS**

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Keywords: Genitourinary Aging, Older Women’s Health, Interpersonal Abuse, Menopause, Urinary Incontinence, Nocturia, Aging and Sexual Function

Dr. Huang's research is directed at advancing understanding of the impact of chronological and reproductive aging on health and well-being in women. She has a particular interest in improving management of genitourinary aging in women, including atrophic changes in the urogenital tract, self-reported genitourinary symptoms, vaginal and urinary tract infections, and sexual function and related quality-of-life domains in older women. She has mentored five past MSTAR students on aging-related projects, all of which have involved national meeting presentations and authorship on peer-reviewed research publications for those students, as well as several students with national or international meeting presentation awards. Past projects involving medical students have included analyses of associations between interpersonal trauma on aging-associated functional decline in older women, treatment strategies for menopausal symptoms in women, elder abuse/mistreatment among older women and men who require help from caregivers or serve as caregivers for others, and treatment-seeking for urinary incontinence among older women of diverse backgrounds.

**Lauren Hunt, PhD, RN, FNP**

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Keywords: Hospice, Palliative Care, Dementia, Pain, Symptoms Burden, Acute Care Use.

Lauren Hunt's research focuses on two primary areas: 1) assessing symptom burden and palliative care needs of vulnerable older adults across care settings; and 2) evaluating hospice and palliative care models and policies for older adults with dementia. She primarily leverages nationally-representative surveys, such as the National Health and Aging Trends Study, the Health and Retirement Study, and Medicare administrative claims to approach her research.**James Iannuzzi**

Email: james.iannuzzi@ucsf.edu

Surgery, Risk Assessment, Cognitive Impairment

Dr. Iannuzzi’s work focuses on surgical outcomes and predictive modelling to identify high risk surgical candidates. His research uses large datasets to create clinically useful risk scores predicting the need for new post-surgical nursing home support or rehabilitation, and readmissions. Current projects also examine the impact of cognitive status on surgical outcomes. Students will have the opportunity to participate in literature reviews, analysis and interpretation of data, and manuscript preparation.

**Jennifer Lai, MD**

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Transplant hepatology, chronic viral hepatitis, autoimmune disorders, and cirrhosis, liver transplantation.

Her 3 main areas of research include integrating core principles of geriatrics (e.g., frailty, disability, palliative care, multi-morbidity) to patients with cirrhosis; investigating disparities in organ allocation and distribution; and assessing the impact of liver donor quality on outcomes.

Dr. Lai is the principal investigator for the NIH-funded Functional Assessment in Liver Transplantation (FrAILT) Study which aims to apply measures of frailty and functional status to patients with end-stage liver disease awaiting liver transplantation. Her central hypothesis is that applying principles of geriatric assessment to this population can improve our ability to identify patients who are vulnerable to adverse transplant outcomes. Her research lays the groundwork for therapeutic interventions aimed at "pre-habilitating" patients awaiting liver transplantation to improve their outcomes and quality of life.

**Sarah LaHue**

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Keywords: delirium, geriatrics, dementia, sleep, inpatient, geroscience

Dr. LaHue is a neurologist who focuses exclusively on the care of adults in the hospital. Dr. LaHue studies delirium through several interdisciplinary lenses. Her main area of research is investigating delirium biomarkers and cognitive trajectories in older hospitalized adults. She also studies clinical predictors and outcomes associated with delirium through the UCSF Delirium Care Pathway, which collects daily delirium screening on every hospitalized patient across UCSF Health. Lastly, she studies sleep promotion using novel technologies with the hope of preventing hospital-acquired delirium.

**Courtney Lyles, PhD**

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As a health services researcher with both quantitative and qualitative expertise, Dr. Lyles’ research focuses on harnessing health information technology to improve patient-provider communication for chronic disease self-management to ultimately reduce disparities in health and healthcare outcomes. Dr. Lyles has led several studies evaluating the impact of health technology on quality and clinical outcomes, as well as conducted extensive work with diverse patients to understand usability needs and preferences in using health technologies, both in clinical settings and in their everyday lives.

**Anil Makam, MD, MAS,**

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Anil is an academic hospital medicine physician and a health services researcher. His research is at the intersection of geriatrics, hospital medicine, and post-acute care, specifically focusing on the role of long-term acute care hospitals (LTACs). His research interest stemmed from his simple observation that Dallas had many LTACs whereas San Francisco had very few, yet he cared for similarly sick and frail hospitalized older adults in both places. His research is funded by an NIA GEMSSTAR grant (2016-2018) and an NIA K23 Career Development Award (2016-2021). Dr. Makam applies health services research and epidemiological methods using Medicare claims, EHR data, and prospective cohort data to examine predictors and variation in LTAC use, comparative effectiveness of the LTAC model of care versus alternative care settings, and patterns of recovery for older adults transferred to LTACs.

He has also continued to work at the interface of hospital medicine, quality of care, evidence-based medicine, and overuse, publishing several high impact studies in JAMA Internal Medicine, Circulation, BMJ Quality & Safety, and Journal of Hospital Medicine.

He has successfully mentored MSTAR students in the past. His mentees have presented first-authored abstracts at the AGS Annual Meeting, with authorship on peer-reviewed publications. In addition to participating in a mentored research project, his summer mentorship program consists of two mentored self-guided curricula on epidemiology and statistical programming.

**Bruce Miller, MD**

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Frontal Lobe, Alzheimer Disease, Frontotemporal Dementia

Dr. Miller is Director of the UCSF Memory and Aging Center which strives to provide the highest quality of care for individuals with cognitive problems, to conduct research on causes and cures for degenerative brain diseases, and to educate health professionals, patients and their families. The busy clinic has approximately 3000 appointments per year (1000 new patient and 2000 follow-up visits). Currently, there are 500-1000 individuals participating in the center’s research projects per year. New diagnostic and treatment approaches to Alzheimer’s disease (AD) and non-AD dementias, including frontotemporal dementia, Creutzfeldt-Jakob disease, progressive supranuclear palsy, and mild cognitive impairment have been established at UCSF.

**Jean Nakamura, MD**

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Radiation, carcinogenesis, metabolism, longitudinal effects of radiation exposure, neurodegeneration

Dr. Nakamura is a radiation oncologist whose laboratory studies radiation effects in diverse tissues, with a primary focus in carcinogenesis, which involves mechanisms that are shared with aging. The growing evidence that mutational processes in normal cells accumulate with age generates questions about the relationship between aging and cancer formation, which is a research focus for the Nakamura lab. Another area the lab studies relates to how radiation exposure influences normal tissue aging, which has specific relevance for human activities in space.

**Urmimala Sarkar, MD, MPH**

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Health Information Technology, Social Media, Patient Safety, Health Disparities, Health Literacy, Diabetes Mellitus Type 2

Urmimala Sarkar MD, MPH is Professor of Medicine at UCSF in the Division of General Internal Medicine, Associate Director of the UCSF Center for Vulnerable Populations, and a primary care physician at Zuckerberg San Francisco General Hospital’s Richard H. Fine People's Clinic. Her work work centers on innovating for health equity, to improve the safety and quality of outpatient care for everyone, especially low-income and diverse populations. See more of the team's work on our website (link below). Dr. Sarkar believes that mentoring and training with commitment to diversity and inclusion are critical to achieving health equity. She is the director of UCSF's Primary Care Research Fellowship, co-directs the Learning Health Systems Early Career Acceleration Program (LEAP K12) for junior faculty, and serves as the curricular director for UCSF's Fellowship Advancement and Skills Training in Clinical Research (FASTCaR). She aims to catalyze health equity scholarship by mentoring students, residents, fellows, and junior faculty at UCSF and beyond.

**Anne Suskind, MD MS**

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Urology, urinary incontinence, surgical decision making for older adults undergoing urologic surgery

Dr. Suskind’s current research aims to transform surgical decision-making for older individuals undergoing urologic surgery by studying long term outcomes (such as cognition and function) that matter to patients. Dr. Suskind’s research leverages large national databases and innovative analytical techniques to address these important issues. Current projects include building a department-wide database of patients undergoing benign urologic surgery at UCSF combined with preoperative frailty testing and prospectively collecting data on the relationship between frailty and outcomes of various overactive bladder treatments (included pharmacological and procedural therapies).

**Melisa Wong, MD, MAS**

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Geriatric oncology, lung cancer, geriatric assessment, treatment toxicity, quality of life

Dr. Wong’s research focuses on understanding and improving the care of older adults with lung cancer. She studies an expanded, patient-centered definition of cancer treatment toxicity that incorporates functional status, quality of life, and patient-reported symptoms to assist older adults and clinicians in making more informed treatment decisions. Students will have the opportunity to participate in conducting a cohort study of older adults with stage IV lung cancer receiving chemotherapy, immunotherapy, and/or targeted therapy and assist with analysis of quantitative and qualitative data.

**Kristine Yaffe, MD**

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Cognition Disorders, Dementia, Alzheimer Disease, Cognition, Aging

Kristine Yaffe, MD is Professor in the Departments of Psychiatry, Neurology and Epidemiology at the University of California, San Francisco (UCSF) and Vice Chair of Research for the Department of Psychiatry. She also is Chief of Geriatric Psychiatry and Director of the Memory Disorders Clinic at the San Francisco VA Medical Center. In addition, she is also the Roy and Marie Scola Endowed Chair in Psychiatry. In both her research and in her clinical work, she has directed her efforts towards improving the care of patients with cognitive disorders and other geriatric neuropsychiatric conditions.

Dr. Yaffe's research has focused on the predictors and outcomes of cognitive decline and dementia in older adults. She is particularly interested in identifying novel risk factors for cognitive impairment that may lead to strategies to prevent cognitive decline. Dr. Yaffe currently has funded studies investigating physical and intellectual activity, sleep disorders, chronic medical conditions including diabetes, obesity and chronic kidney disease, and depression. Another more recent focus of her work is conceptualization and characterization of Healthy Brain Aging. Her work has been published in numerous prestigious journals including the Lancet, JAMA, and The New England Journal of Medicine and she is currently funded by the NIH, DOD, State of California Public Health Department, the Alzheimer Association and other foundations.

Dr. Yaffe received her medical degree from the University of Pennsylvania. She completed residency training in both neurology and psychiatry at the University of California, San Francisco. She then completed a combined fellowship in Clinical Epidemiology and Research Methods and Geriatric Psychiatry also at the University of California, San Francisco.

**Andrew C. Yang, PhD**

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Brain aging, dementia, blood-brain barrier, neuroimmunity, chemical biology, -omics

Andrew is a Sandler Faculty Fellow in the Department of Anatomy and Bakar Aging Research Institute. We study how the blood-brain barrier (BBB) regulates brain health and aging. The BBB forms a unique shelter for the brain, critical for optimal neuronal function. Our lab develops new molecular approaches to decipher and engineer unexpected communication across the BBB. We recently developed proteome tagging and single-cell techniques to discover diverse protein transport across the BBB, the mechanisms of its impairments with age, and its associations with Alzheimer's disease. Our work could inform improved drug delivery to the brain and reveal new mechanisms governing brain health we can use to engineer greater resilience to neurodegeneration.