Marcus Program in Precision Medicine 2024 Awards

George and Judy Marcus Awards
Marcus Program in Precision Medicine Innovation
2024 Awardees

The ***Marcus Program in Precision Medicine Innovation*** is pleased to announce the results of the 2024 cycle for innovative collaborative project proposals for the following grant mechanisms: **Transformative Integrated Research (TIR)**, **Seeding Bold Ideas (SBI)**, **Ethical-Legal-Social Implications (ELSI) in Precision Medicine** and **Inclusion-Diversity-Equity-Anti-Racism (IDEA) in Precision Medicine**. We received a total of 46 excellent and potentially transformative trans-disciplinary research proposals from faculty across UCSF: 14 cross-disciplinary teams submitted proposals to the SBI Initiative, 24 teams submitted to the TIR Initiative, 5 teams submitted to ELSI Initiative and 3 teams submitted to IDEA Initiative.

A broad cadre of 41 researchers representing basic, clinical, computational health, population health, and social/behavioral sciences reviewed the applications. The 2024 Marcus Advisory Council then selected a slate of applications from each mechanism for funding, based primarily on the reviews and scores, and also on the stated goals of the Marcus Program. In the end, 4 TIR, 6 SBI, 2 ELSI and 2 IDEA proposals were funded, distributing over $2.0M dollars for a broad spectrum of bold research.

In addition, this cycle we continued two funding supplement initiatives in support of inclusive excellence. The first program provides a supplement for awarded research projects involving human subjects to receive a **patient and community consultation** through the CTSI Community Engagement Program regarding their proposed study. This CTSI service was created to provide an easily accessible and efficient mechanism for UCSF researchers to obtain patient and community stakeholder input for their research projects. Ten awarded projects are eligible for this supplement (denoted with an **&** in table below). The second inclusive excellence initiative is a **Marcus Diversity Supplement,** which was awarded to all funded projects where either at least one member of the PI team is of a historically underserved background or where the project includes historically under-served people in the experimental design. We awarded seven Diversity Supplements (denoted with ♦ in table below**).**

The awardees for the Marcus Program in Precision Medicine Innovation 2024 Transformative Integrated Research (TIR) Initiative are:

Team	**Proposal Title**
Carlo Condello, PhD, Michelle Arkin, PhD and Lea Grinberg, MD, PhD (& and ♦)	Caspase-6 as a new therapeutic target for Alzheimer's Disease: in vivo pharmacology and diagnostic
Tony Capra, PhD and Aleksander Rajkovic, PhD, MD (&)	Beyond single variants: embracing genomic context and diversity in rare disease genome interpretation

Elad Ziv, MD, Yin Shen, PhD and Jenifer Rosenbluth, MD, PhD (&)	Precision-guided breast cancer prevention
Andrei Goga, MD, PhD, Katie Kelley, MD an Adam Renslo, PhD (&)	Inhibition of GPT2 as a Novel Therapy for Liver Cancer

The awardees for the Marcus Program in Precision Medicine Innovation 2024 Seeding Bold Ideas (SBI) Initiative are:

Team	**Proposal Title**
Michael Evans, PhD, Adam Renslo, PhD and Rahul Aggarwal, MD	A covalent linker technology to expand the therapeutic window for radioligand therapies
Ethan Winkler, MD, PhD, Tomasz Nowakowski, PhD, Rachel Vassar, MD and Daniel Cooke, MD (&)	Pioneering precision stroke therapies through patient-derived perfused vascular brain organoids
John Liu, MD, PhD and Mitchel Berger, MD	Translating lipid nanoparticle based epigenetic therapeutics for glioblastoma
Wallace Marshall, PhD, Emin Maltepe, MD, PhD, Susan Fisher, PhD and Jennifer Fung, PhD (& and ♦)	Wireless placenta monitoring for precision measurement of fetal blood oxygen and glucose
David Nguyen, MD, PhD and Alice Chan, MD, PhD (&)	"Mutation Transplant" to Assess Function of JAK3 Variants of Uncertain Significance from Patients with Likely PID/PIRD Disease
Ahmed Alaa and Travis Zack, MD, PhD (♦)	Large Language Models for Equitable and Patient-Centric Post-Hospital Transitional Care

The awardees for the Marcus Program in Precision Medicine Innovation 2024 Ethics, Legal and Social Implications (ELSI) in Precision Medicine Initiative are:

Team	**Proposal Title**

Erica Farrand, MD and Paul Wolters, MD (& and ♦)	Implementing Telomere Length Testing in Fibrotic Interstitial Lung Disease: Defining a Real World Strategy
Neel Singhal, MD, Claire Clelland, MD, PhD and Douglas Pet, MD (& and ♦)	Establishing an ethical and open science framework for PIONEER (Pilot to Optimize geNe-Editing with ELNP-01 in the central neRvous system)

The awardees for the Marcus Program in Precision Medicine Innovation 2024 Inclusion, Diversity, Equity and Anti-Racism (IDEA) in Precision Medicine Initiative are:

Team	**Proposal Title**
David Raleigh, Phd, MD and Shawn Hervey-Jumper, MD (♦)	Genomic and biochemical mechanisms of meningioma sex- and race-specificity
Ryan Hernandez, PhD, Katrina Abuabara, MD, Katherine Hyland, PhD, Mary Norton, MD, Akinyemi Oni-Orisan, PharmD, PhD, Bani Tamraz, PharmD, PhD, and Lauren Weiss, PhD, (& and ♦)	Use of Race, Ethnicity, and Ancestry in Pharmacogenomics Testing

** **2024 Marcus Award Advisory Council:**

Keith Yamamoto, PhD, Professor, Cellular Molecular Pharmacology, School of Medicine
Vice Chancellor for Science Policy and Strategy
Director, UCSF Precision Medicine
(Marcus Program Director)

Katrina Abuabara, MD, Associate Professor, Dermatology, School of Medicine
Director, CTSI Participant Recruitment Program

Riley Bove, MD, Associate Professor, Neurology, School of Medicine
UCSF Weill Institute for Neurosciences

Joel Ernst, MD, Professor, Medicine, School of Medicine,
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John Fahy, MD, Professor, Medicine, Division of Pulmonary and Critical Care Medicine, School of Medicine

Bob Hiatt, MD, PhD, Professor, Epidemiology & Biostatistics, School of Medicine

Jennifer James, PhD, MS, MSW, Associate Professor, Institute for Health & Aging, School of Nursing
Co-Director, Emancipatory Sciences Lab

Nevan Krogan, PhD, Professor, Bioengineering, School of Pharmacy
Director, UCSF Quantitative Biosciences Institute

Gretchen Kiser, PhD, Executive Director, Research Development Office
(Marcus Program Administrative Director)