George and Judy Marcus Innovation Fund
Marcus Program in Precision Medicine Innovation
2024 Call for Proposals

Call for Proposals Announced	April 16, 2024
Proposal Application Deadline	Wednesday, May 29, 2024
Announcement of Awards	By early July 2024 (target funding start – August 1, 2024)
Project Timeline	1 year

The **Marcus Program in Precision Medicine Innovation (MPPMI)** seeks to fuel innovation in precision medicine by fostering creative, high risk, high impact team science projects supporting the precision medicine continuum. See MPPMI Program Overview on the program website. The MPPMI invites proposals for our 2024 funding in four award categories, **Seeding Bold Ideas**, **Transformative Integrated Research, ELSI in Precision Medicine, and IDEA in Precision Medicine Research.**

Award Amounts:

Marcus Program Seeding Bold Ideas Award (MP-SBI)

- Up to $75,000 for one year
- SBI awards enable initial exploration of untested concepts or hypotheses with great potential impact
- Funding 4-6 proposals

Marcus Program Transformative Integrated Research Award (MP-TIR)

- Up to $300,000 for one year
- TIR awards support new directions for established basic science-driven translational studies
- Funding 3-4 proposals

Marcus Program ELSI in Precision Medicine Award (MP-ELSI)

- Up to $150,000 for one year
- 50% of the total grant budget ($75,000) may be applied to PI salary.
- ELSI awards support the development of necessary frameworks for ELSI, implementation, economic, and policy aspects of precision medicine.
- Funding up to 2 proposals

Marcus Program IDEA in Precision Medicine Award (MP-IDEA)

- Up to $150,000 for one year
- 50% of the total grant budget ($75,000) may be applied to PI salary.
- IDEA awards support the development of best practice frameworks for precision medicine research relative to inclusion, diversity, equity, and anti-racism involving historically excluded populations.
- Funding up to 2 proposals

Eligibility:

- UCSF faculty, as well as UCSF Sandler Fellows and Physician Scientist Scholars Program awardees are eligible; and
- **At least one of the multi-PIs on the team must have an Academic Senate faculty appointment OR if PIs are all Adjunct faculty, then at least one needs to include a statement of eligibility from their Department or Division Chair or Dean verifying that they have access to the resources and infrastructure necessary to conduct independent research.**

Some budget and eligibility details:

- *Subcontracts*: For the Transformative Integrated Research award – a subcontract cannot budget more than $75,000 of the $300,000 budget; For the Seeding Bold Initiatives award, only $15,000 can be used for non-UCSF budget lines; for ELSI in Precision Medicine and IDEA in Precision Medicine Research awards, only $30,000 can be subcontracted.
- *PI salary: For the Marcus ELSI and IDEA grants only*: up to 50% of the total grant budget ($75,000) may be applied to PI salary. Otherwise, PI salary is not an allowable expense.
- *F&A / Indirect costs* are not allowed in the budget.
- *Emeritus appointments* are not eligible to serve as PIs.
- *Research Series Appointments* are not eligible for a PI role on a Marcus award. Research Series Appointments are academic not faculty appointments.

Proposal Scope:

For proposals to the **Seeding Bold Ideas** and **Transformative Integrated Research** mechanisms, projects:

- should support translational precision medicine research grounded in a basic science problem or question, but extending to patient relevance;
- require two or more PIs (multi-PIs): at least one a basic scientist, and at least one a clinical, social/behavioral, implementation, computational or population scientist; both existing and newly formed teams are eligible;
- should employ bold, high-risk thinking and approaches that will likely yield explicit "deliverables" (including discovery that the idea was wrong) after one year; and
- are encouraged to employ population health and health equity strategies or to integrate novel computational methods such as those that contribute to building the [Information Commons or Knowledge Network.](#)

For proposals to the **ELSI in Precision Medicine** mechanism:

The emergence of transformational clinical and research technologies (e.g., gene-editing) and novel applications of personal and social determinants of health data (e.g., collectively, in the 'knowledge network'), bring challenging ethical, legal, social implication (ELSI), implementation, and policy matters to precision medicine. Proposals to the **ELSI in Precision Medicine** mechanism:

- should address an innovative ELSI, implementation or policy project, tethered deliberately to a precision medicine application (e.g., data stewardship and sharing, economics of precision medicine applications, precision medicine and health disparities, equity in technology development, application or access, role of genetic exceptionalism in policy development, participant rights and engagement, etc.);
- require two or more PIs (multi-PIs);
- should employ bold, high-risk thinking and approaches that will likely yield explicit "deliverables" (including discovery that the idea was wrong) after one year.

For proposals to the **Inclusion, Diversity, Equity, and Anti-Racism (IDEA) in Precision Medicine** mechanism:

Recognizing the essential societal reawakening to the impacts of racism, social injustice and health inequities, the research enterprise has begun to examine how these horrific realities have manifested in the conduct and output of research. Proposals to the **IDEA in Precision Medicine**:

- should be embedded within translational precision medicine research grounded in a basic science problem or question, but extending to patient relevance;
- should advance our understanding of how current and/or prior research methods and tools perpetuate health inequities, inaccurate race-associated conclusions, racist clinical practice, etc.; and/or
- should focus on developing best practices and innovative, new experimental methods and tools to optimize IDEA in retrospective or prospective studies.

- require two or more PIs (multi-PIs), preferably multi-disciplinary;
- should include project focus areas: new knowledge on the role of race, ethnicity, disability, ancestry and gender identity in population health and precision medicine, assessment of current and development of improved racial or ancestral categorization strategies, methods to address lack of diversity and inequities in existing databases, critical review of ongoing use and development of improved IDEA in medical calculators, algorithms, protocols, standards and decision-making tools currently in use;
- should employ high-risk thinking and approaches that seek explicit "deliverables" (including discovery that the idea was wrong) after one year.

Human Subjects Research

To address the need for timely and efficient stakeholder input in research, the UCSF CTSI Community Engagement Program has established a Patient and Community Advisory Board (PCAB). The PCAB provides review and feedback for UCSF clinical and translational research. Community stakeholders include patients, clinicians, community-based organizations, civic agencies, and other groups who have a stake in the outcomes of clinical research. Involving representatives from these groups early in the research process is important not just for socially responsive science, but also makes for more successful translational research by facilitating recruitment and retention of diverse study participants, enhancing the feasibility of study interventions, and promoting successful dissemination of findings to target audiences. All investigators conducting human subjects research funded by a Marcus Award **MUST** seek PCAB review; Requesters should **use this link** and then click on the orange box. Such relevant projects will receive a credit of an additional $1,000 to cover the cost of PCAB review.

Marcus Diversity Supplement

This supplemental funding modestly augments top awarded Marcus grant projects that have at least one investigator from an under-represented group (URI) or that include historically under-represented (UR) populations in their research studies. The top two awarded SBI, TIR, ELSI and IDEA applications (based on final review score) that meet either criteria will be awarded an additional up to $2,000 for SBI grants, $5,000 for ELSI or IDEA grants, or $7,500 for TIR grants. Applications that meet either of these criteria will be instructed to include a brief paragraph describing how the PIs plan to use such a supplement. Note that Marcus Diversity Supplements awarded to a URI faculty PI may be spent at the discretion of the URI researcher toward the aims of the proposal, and those awarded to a project that includes UR populations can be used broadly in support of the inclusion of those populations in their study. For example, these supplemental funds might support assays on additional samples, or translation of study documents into alternative languages.

Note that for the purposes of this supplement, the definition of "under-represented" follows the UCSF Office of Diversity and Outreach definition - African American/Black, Hispanic/Latinx, Native American and Asian sub-categories of Filipino, Hmong and Vietnamese.

Proposal Instructions (Arial 11 font; 0.5-inch margins)

1. Cover Page (1 page limit):
   a. *Application profile information*: name of award program, deadline year, title of proposal, scientific disciplines represented in the collaboration, amount of funding requested, Principal Investigator names, academic titles, departments, current contact phone numbers, and email addresses. Identify the contact PI and the UCSF department that will manage the award, along with the accounting manager/contact name, their email address, and their phone number.
   b. *Lay Summary*: Provide an up to 300-word lay summary that describes the problem statement and the proposed experimental aims and approach, notes the impact and significance, and

highlights the value of the team. This Summary should target an educated audience that is non-expert in scientific disciplines.

2. <u>Project Description (2-page limit):</u> Project Description to include sections on Rationale/Background; Proposed Research and Approach; Innovation; and Impact. Preliminary data not required. Figures must be included within these 2 pages.

3. <u>Competitive Renewal Statement (if applicable, additional 1 page to Project Description):</u> *If this proposal is a request for Year 2 follow-on funding of a 2022 project award*, please complete a Competitive Renewal Statement in which you describe the research results obtained with 2022 funding, including the extent to which 2022 goals were achieved and/or any issues encountered; and describe the relationship between the aims of the 2022 funding proposal and those proposed for 2024.

4. <u>Marcus Diversity Supplement (if applicable; brief paragraph not part of Project Description page limit):</u> If the proposed project is led by an under-represented investigator (URI) OR includes under-represented populations in the experimental design, then the project is eligible for a modest supplement. The URI faculty PI supplement may be spent at the discretion of the URI researcher toward the aims of the proposal and the UR populations project supplement can be used broadly in support of the inclusion of those populations in the study. Please provide a brief paragraph describing how you would use the supplement, if your project is awarded.

5. <u>Additional Investigator Background:</u> (optional; not to exceed a half page and not included in overall Project Description page limit)
   a. Explain any life experience, positionality, or perspective that may strengthen the application or make you uniquely qualified to conduct the research.
   b. Explain the career impact of your personal or professional contextual background involving economic disadvantage, underrepresented investigator status, or related intersectionality.

6. <u>Literature cited (not part of page limitations)</u>

7. <u>Budget and Budget Justification (1 page limit):</u> Funds may not support faculty salary (partial exceptions noted for ELSI and IDEA mechanisms, where up to 50% of the total grant budget ($75,000) may be applied to PI salary).

8. <u>Regulatory Compliance (not part of page limitations):</u> Please answer the following questions.
   a. Does your project involve human subjects?
      i. Yes, CHR/IRB Approval # is
      ii. Yes, CHR/IRB Approval Pending
      iii. Yes, CHR/IRB Approval Planned
      iv. No, CHR/IRB Not Applicable
   b. Does your project involve human stem cells?
      i. Yes/No
   c. Does your project involve animal subjects?
      i. Yes, IACUC Approval # is
      ii. Yes, IACUC Approval Pending
      iii. Yes, IACUC Approval Planned
      iv. No, IACUC Not Applicable

9. <u>Biosketch (not part of page limitations; 5 page maximum per biosketch):</u> Include biosketches for all PIs of a multi-PI application, and any other key personnel such as Co-Investigator(s) or UCSF Faculty Mentor(s). Use **Form Version H** found at https://grants.nih.gov/grants/forms/biosketch-blank-format-rev-10-2021.docx. Add a **section D**, describing: active grants, pending proposals, and completed research grants from the past 3 years. For each listed, include percent effort, total costs for each year, and potential overlap with the current proposal.

Submission: As a single PDF, via email to rdoinfo@ucsf.edu no later than Wednesday, April 29, 2024, 11:59 pm PST. **NOTE: Include contact PI last name in the file name and put *Marcus Award* in the Subject Line.**

<u>**Selection Process**</u>**:**

A diverse faculty committee with appropriate expertise and understanding of precision medicine goals will select the awardees and establish funding levels.

<u>Review Criteria</u>
(**1-4 *must* be met for each;** address additional criteria explicitly to the extent that they apply to your proposal)

Seeding Bold Ideas Award and **Transformative Integrated Research Award** proposals should:

1. Address an innovative precision medicine approach grounded in a basic science problem or question;
2. Address the potential for tangible benefit to patients, including the likelihood that the study will have an immediate impact;
3. Address the potential for data integration, bridging basic and translational research;
4. Describe the multidisciplinary composition and expertise/characteristics of team members;
5. Give attention to particular challenges of computational needs, interoperability, health disparities, privacy, participant engagement, consent, security, ethical and/or regulatory issues;
6. Include potential downstream use of tools, measurements, approaches, and data, including open public accessibility of generated data and publications; and/or
7. Include the potential to scale, including potential to leverage the >15 million EHR from across the UC Health centers.

ELSI in Precision Medicine Award proposals should:

1. Address an innovative ELSI, implementation, health economic, or policy project, and describe how it is tethered deliberately to a precision medicine application;
2. Address the potential for tangible benefit to patients, including the likelihood that the study will enable more effective and timely implementation of precision medicine applications;
3. Describe the multidisciplinary composition and expertise/characteristics of team members.
4. Include the potential downstream use of tools, measurements, approaches, and data, including open public accessibility of generated data and publications; and/or
5. Include the potential to scale.

IDEA in Precision Medicine Research Award proposals should:

1. Address assessment and improvement of research methods and tools that lead to health disparities within PM research;
2. Address the potential for tangible benefit to patients, including the likelihood that the study will enable more effective and timely implementation of IDEA best practices in precision medicine research;
3. Describe the multidisciplinary composition and expertise/characteristics of team members;
4. Include the potential downstream use of tools, measurements, approaches, and data, including open public accessibility of generated data and publications; and/or
5. Include the potential to scale.

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