



DISC5 Awards: Funding Opportunity for Discovery Stage Research

Summary

OVERVIEW	
Objective	Support comprehensive discovery research across a diverse range of diseases and bottlenecks that will accelerate the development of potential therapeutics and biomarkers in regenerative medicine
Scope	Exploratory and innovative foundational research led by pairs of investigators applying a range of technologies and approaches to address knowledge gaps or bottlenecks in stem cell biology or regenerative medicine
Program Recurrence	Once per year
AWARD DETAILS	
Investigators	1 Principal Investigator (PI) + 1 Co-Investigator (Co-I)
Amount	Up to \$2,500,000 total costs
Duration	Up to 3 years
ELIGIBILITY REQUIREMENTS	
Applicant Organization	Only non-profit or for-profit organizations* that meet CIRM's definition of a California Organization* are eligible to apply
Applicant PI and Co-I*	Must be California-based and commit at least 5% effort each
Critical Role(s)	A Data Project Manager must be included on the team
Co-funding	Not required
SCHEDULES AND DEADLINES	
Application Due Date	Once per year
GWG Review	Approximately 90 days post submission deadline
Award Approval	Approximately 150 days post submission deadline
Start Date	Must be ready to start award activities within 90 days of award approval
CONTACT AND ADDITIONAL RESOURCES	
<p>https://www.cirm.ca.gov/researchers/funding-opportunities-discovery-stage-research/</p> <p>For additional information on the program or applications, contact discovery@cirm.ca.gov. For questions related to the review and approval of applications, contact review@cirm.ca.gov.</p> <p>*Additional requirements and definitions incorporated here by reference are available in [CIRM Common Requirements and Definitions- PENDING]</p>	



Background

The mission of the California Institute for Regenerative Medicine (CIRM) is to accelerate world class science to deliver transformative regenerative medicine treatments in an equitable manner to a diverse California and world. In September of 2024, CIRM's Governing Board, the Independent Citizens' Oversight Committee (ICOC), approved a Strategic Allocation Framework (SAF) to guide and optimize the value of CIRM's current and future investments. One key outcome of this exercise was defining an ambitious goal for CIRM, through its discovery stage opportunities, to catalyze the identification and validation of at least 4 novel targets and biomarkers and ensure their integration into preclinical or clinical research for diseases in California.

The most important impediment to the development of effective treatments is the lack of well-validated or actionable therapeutic targets due to an incomplete understanding of disease biology. Due to the complexities of disease processes, sustained investments in foundational, cross-disciplinary research are necessary to identify high-quality targets for therapeutic development. In 2024, the ICOC approved a recommendation to support comprehensive discovery research through at least 2 new complementary award structures (DISC4 and DISC5) that promote innovative, collaborative research at varying levels of scale and maturity. These awards will fund a network of multidisciplinary research teams that will be further supported by CIRM to facilitate knowledge sharing and to leverage other CIRM-funded resources to ensure readiness for further translational efforts.

CIRM's Discovery Program seeks to build on rapid advances in stem-cell biology and genetic research including:

1. Advances in stem cell biology and stem cell derived models in basic and translational research, particular in facilitating the study of human tissues, cells and genes.
2. Advances in the understanding of the genetic underpinning of diseases and biological processes including insights from human genetic studies and functional genomic tools to map genes to cellular functions and disease processes.
3. Advances in a broad range of research technologies (single-cell omics, imaging, machine-learning etc.) that greatly enhance the study and use human stem cells in research and medicine.

The DISC5 Awards will capitalize on these advances through the power of team science while providing robust support for innovative, exploratory research with the potential to yield findings that are transformational. Through support of synergistic collaborations at a scale that is conducive to high risk, high gain pursuits, CIRM aims to foster a robust discovery engine that will bring transformative regenerative medicines to diverse communities in California and beyond.

Existing federal funding opportunities for discovery research are primarily driven by the internal priorities and interests of the administering body and may be unpredictable or limited in scope or focus. Since its inception, CIRM has created funding opportunities for basic research that are unique in scope and design, provide reliable and predictable funding, support data and knowledge sharing, and accelerate translation of research insights into therapies and diagnostics. Through the DISC5 program, CIRM continues its support for basic discovery research that is unlikely to receive timely or sufficient support from federal or other funding sources.

Objective

The overarching objective of CIRM's Discovery Program is to support comprehensive, discovery research across a diverse range of diseases and bottlenecks that will accelerate the development of potential therapeutics and biomarkers in regenerative medicine.

This vision is achieved through unique funding opportunities supporting research at different scales and levels of maturity, with an emphasis on multidisciplinary innovation, knowledge sharing and leveraging synergies across CIRM-funded programs to catalyze the discovery of targets and biomarkers and support their entry into preclinical development.



Scope and Structure

The DISC5 Insight Awards support exploratory and innovative foundational research led by pairs of investigators applying a range of technologies and approaches to address knowledge gaps or bottlenecks in stem cell biology or regenerative medicine, to achieve one or more of the following outcomes:

To maximize the impact of these project outcomes, CIRM requires that applicant teams appropriately manage and share data generated in the course of a DISC5 award.

- Advancing our understanding of human stem and progenitor cells as they pertain to human health and disease
- Advancing use and impact of stem cells in exploration of disease mechanisms and therapeutic target discovery
- Identifying biological insights to address key bottlenecks in stem cell and gene therapy and other regenerative medicine approaches
- Advancing applicability of stem cells and gene therapy and other regenerative medicine approaches to diverse human populations

Program activities

Applicants may request funds to cover costs for research activities conducted wholly in California and may also request costs for activities conducted outside of California, provided that the California Organization exercises direction and control over the activities.

CIRM funds **will support** the following activities under this opportunity:

REQUIRED ACTIVITIES	
✓	Activities associated with managing, preserving, and sharing data and knowledge from the study
ALLOWABLE ACTIVITIES	
✓	Any basic research activities that meet the DISC5 objective to address knowledge gaps or bottlenecks in stem cell biology, with relevance to human biology and disease- and that falls into one of the below categories: <ul style="list-style-type: none"> • Advancing our understanding of human stem and progenitor cells as they pertain to human health and disease • Advancing use and impact of stem cells in exploration of disease mechanisms and therapeutic target discovery • Identifying biological insights to address key bottlenecks in stem cell and gene therapy and other regenerative medicine approaches • Advancing applicability of stem cells and gene therapy and other regenerative medicine approaches to diverse human populations
✓	Partnering activities with patient-centered organizations or other project-relevant community groups.
✓	Activities to support outreach or communication of research plans or outcomes with the wider public.
✓	Engagement activities with trainees supported through CIRM's EDUC or INFR programs

CIRM funds **cannot be used** to support the following activities under this opportunity:



UNALLOWABLE ACTIVITIES	
✘	Therapeutic or other commercial development activities including lead optimization, manufacturing, pre-clinical toxicology and pharmacology studies and other activities targeted by CIRM’s PDEV and CLIN programs.
✘	Costs of activities performed by a separate out-of-state organization that retains intellectual property or independent publication rights in any intellectual property (e.g., invention, technology, data) arising out of the CIRM-funded project.
✘	Project costs incurred before the date the ICOC approves the application for funding, which can be as early as 90 days post application submission.
✘	Activities already budgeted or paid for under a prior, existing or pending CIRM award or which are already supported by another funder

Award amount and duration

The maximum amount of funding that may be requested for a DISC5 Insight Award is \$2,500,000, total costs. The maximum award duration is three (3) years. If the proposed budget is equal to or exceeds \$900,000 in a single budget year, additional justification will be required. The requested amount must be adequately justified and is subject to adjustments prior to the issuance of an award based on assessments by the Grants Working Group, the CIRM team, or by the Application Review Subcommittee of the ICOC.

Positive selection

CIRM anticipates that the number of applications submitted will be very high for this competition. When the number of applications received in a cycle exceeds the number that can be reviewed by the GWG panel, CIRM will conduct the review in two stages. In the first stage, a pre-review of applications (called “Positive Selection”) will be conducted by members of the GWG to identify applications that are most responsive to the funding opportunity and hold the greatest potential for impact. The CIRM scientific team and CIRM President then determine whether any additional applications merit a full GWG review. The remaining non-selected applications are deemed to be denied.

Positively selected applications advance to the second stage of review, which involves assignment to specific reviewers on the panel, a full discussion at review meeting, and scoring by the GWG.

Provisional timetable

DISC5 awards will recur annually. The anticipated timeline of each cycle stage is as follows:

PROVISIONAL TIMETABLE	
Applications Open	Once per year
Applications Due	Approximately 90 days after applications open
Positive Selection	Approximately 30 days after application due date
Grants Working Group (GWG) Review	Approximately 60 days after application due date
Application Review Subcommittee (ARS) Award Approval	Approximately 60 days after Grants Working Group review
Award Start	90 days after award approval



Eligibility

All the following requirements must be fully satisfied for an application to be accepted and considered for funding by CIRM. Requirements marked with a * [or similar] incorporate by reference the requirements and definitions described in [CIRM Common Requirements and Definitions].

ELIGIBILITY REQUIREMENTS	
1	The proposal must be in scope and meet one or more of the expected outcomes defined in the DISC5 Objective
2	The proposal must focus on studies that employ human stem cells or genetic research as part of the central approach or hypothesis
3	A strong justification must be provided for any proposed use of non-human models
4	The applicant team must include one Principal Investigator (PI) and one Co-Investigator (Co-I), both based in California, and which commit at least 5% effort each
5	The Co-I must not currently be part of the same lab as the PI
6	An individual may not serve as PI on >1 DISC5 application per funding cycle
7	An individual may not serve as PI or Co-I on >2 DISC5 applications per funding cycle
8	The applicant team must include an experienced data project manager (Key Personnel or other)
9	The applicant must be ready to initiate work on the funded project within 90 days of award approval.
10	The PI and/or Co-I must not currently have another application that is substantially similar or has overlapping activities pending review or approval under any CIRM opportunity
11	The application must be complete and accurate
12	The applicant organization must meet CIRM's definition of a California Organization*
13	For-profit organizations must demonstrate solvency*
14	The applicant must be in "good standing" *