DISC5
Concept Overview

February 2025

CIRM
CALIFORNIA INSTITUTE FOR REGENERATIVE MEDICINE

DISC5 | Outline

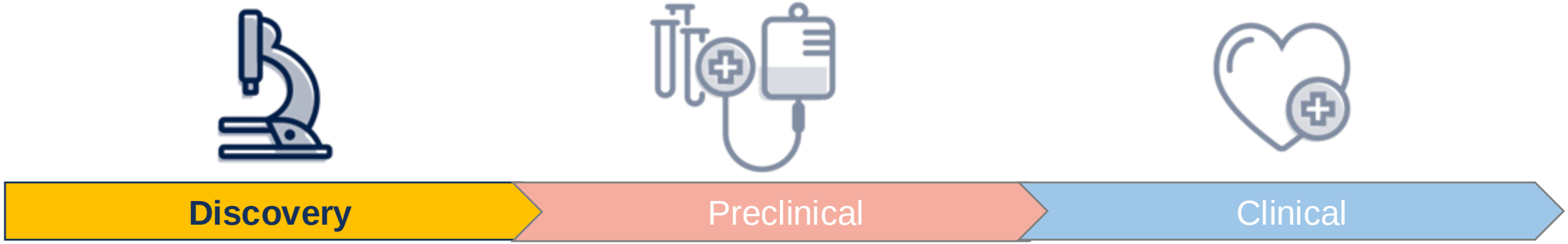
1. Background (SAF Alignment)
2. Objective
3. Scope
4. Structure
    1. Award Budget
    2. Eligibility
    3. Other Changes
5. Request for Approval

Goal 1 | Recommendations

Goal 1 - Catalyze the identification and validation of at least 4 novel targets and biomarkers, ensuring integration into preclinical or clinical research for diseases in California

Support comprehensive discovery research through DISC4 & DISC5 funding structures

- Encourage collaborative, multidisciplinary innovation in stem cell and genetic research across diverse disciplines & disease indications with early engagement of industry to address reproducibility & scalability issues



Discovery Programs

Common Objective of CIRM's Discovery programs is to support comprehensive discovery research across a diverse range of diseases and bottlenecks, to accelerate the development of potential therapeutics and biomarkers in regenerative medicine.

Two complementary awards support research at different scales and maturity

DISC4	DISC5
Large multidisciplinary, collaborative teams focused on disease biology insights to facilitate target/biomarker identification	Small collaborative teams focused on exploratory research to advance the understanding and application of stem cells and address bottlenecks in cell and gene therapy

Discovery Programs

Common Objective of CIRM's Discovery programs is to support comprehensive discovery research across a diverse range of diseases and bottlenecks, to accelerate the development of potential therapeutics and biomarkers in regenerative medicine.

Program Infrastructures to facilitate data and knowledge sharing within and beyond CIRM's network of grantees

- Program & Grantee Meetings
- Data Sharing Infrastructure
- External Partnerships
- Leveraging other CIRM funded resources

DISC5 | Objective

Objective

Support comprehensive discovery research across a diverse range of diseases and bottlenecks to accelerate the development of potential therapeutics and biomarkers in regenerative medicine

Approach

Exploratory and innovative foundational research led by small teams of investigators

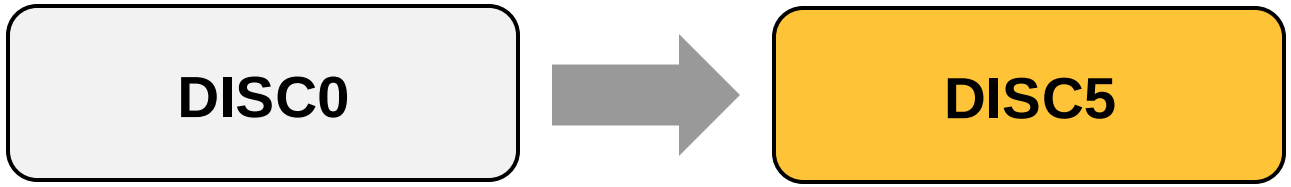
DISC5 | Scope & Expected Outcomes

DISC5 awards support exploratory and innovative foundational research led by pairs of investigators to achieve one or more of the following outcomes:

- Advancing our understanding of human stem and progenitor cells as they pertain to human health and disease
- Advancing the use and impact of stem cells in the 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 cell and gene therapy and other regenerative medicine approaches to diverse human populations

DISC5 | Improves and Enhances DISC0 Program

Approach: Simplifies and builds upon DISC0 award structure to encourage small collaborations and enhance support for exploratory research



High-Level Program Objectives

Collaboration

Support for collaborations between pairs of investigators

Innovation

Enhance award support for exploratory or higher risk research

DISC5 | Award Structure

	DISC5
Structure	Exploratory/Innovative research through investigator pairs
Recurrence	Annual
Max Duration	3 years
Applicant	California non-profit or for-profit research institutions
Core Team	2 California-based investigators (1 PI + 1 Co-I)
Max Award (total cost)	$2.5M
Awards/Year	15-20
Max Projection	$50M (20 X $2.5M)
Total Funds/Year	$50,000,000

DISC5 | Award Budget

	DISC0: Foundation	DISC5: Insight
Cost Cap	Direct Cost Cap	**Total Cost Cap**
Overhead	**Average 60%** 40% - 84% (range) *past DISC grants*	**Apply 66%** **based on historical average**
Max Award	$1.0M - $1.5M (single PI) *Direct costs*	**$2.5M** = $1.5M + 66% *Total costs*
# of Awards per Year	11-16 (historical DISC0)	**Target 15-20 awards**

DISC5 | Project Eligibility

Aligned with DISC4

To be eligible a project must:

1. Address a key knowledge gap or research bottleneck that could lead to one or more of the expected outcomes
2. Focus on studies that employ human stem cells and/or genetic* research as part of the central approach or hypothesis
3. Provide strong justification for any proposed use of non-human models

* Research that alters genomic sequences of cells (edit, remove or add DNA sequences); or introduces or directly manipulates nucleic acids (e.g., coding and non-coding RNAs, antisense oligonucleotides) in *human* cells

DISC5 | Team Eligibility

	Eligibility Requirements
Applicant	California non-profit or for-profit research institutions
Core Team	2 CA-based Investigators • 1 Principal Investigator (PI) as main point of contact with CIRM staff • 1 Co-Investigator (Co-I), from a different lab than PI
Expertise Requirements	• Data Project Manager
Investigator Effort	• PI - 5% min • Co-I - 5% min

DISC5 | Application and Review

DISC5 will utilize established 2-stage review process

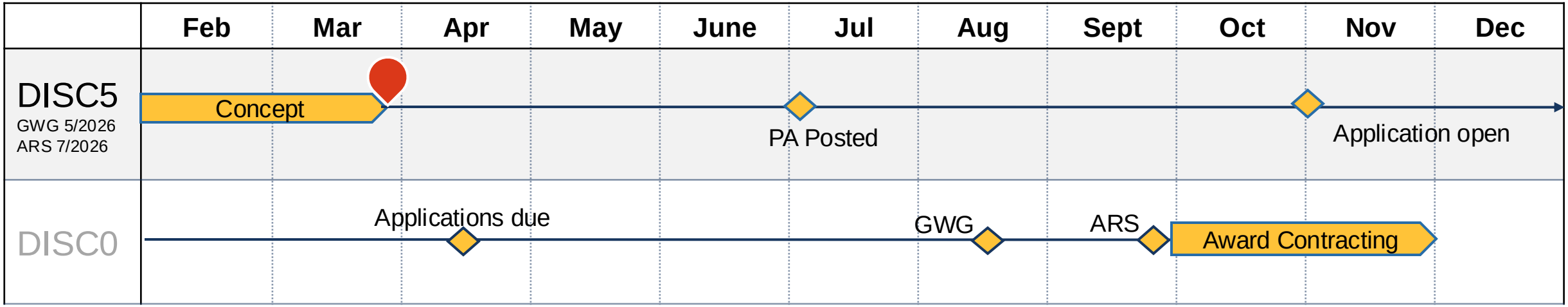
- Effective management of high application volumes
- Enhanced weight and visibility for innovation
- Improved granularity and visibility for score driving decisions

DISC5 | Other Attributes or Improvements

Data Sharing and Management Plans

- Require Data Sharing and Management Plan
- Require coordination with CIRM's data initiatives

DISC5 Program Timeline



Formal Request for Funding

CIRM requests the ICOC approve the proposed DISC5 Program Concept, with an initial allocation of **$50M** in the first annual funding cycle