

**SOMETHING  
BETTER  
THAN HOPE**

**GWG Recommendations for Applications  
Submitted to the CLIN Program**

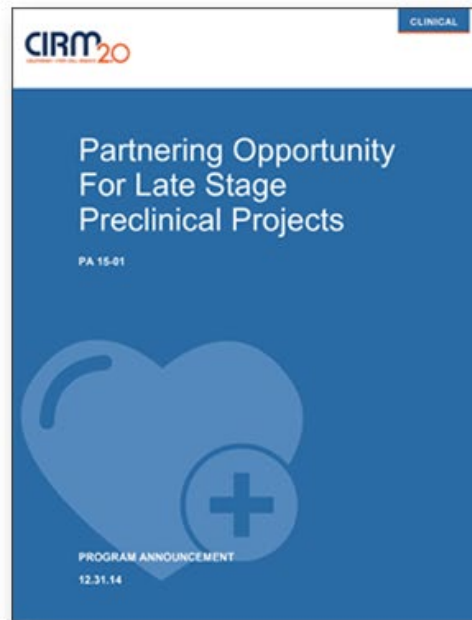
**Gil Sambrano**

Vice President  
Portfolio Development and Review

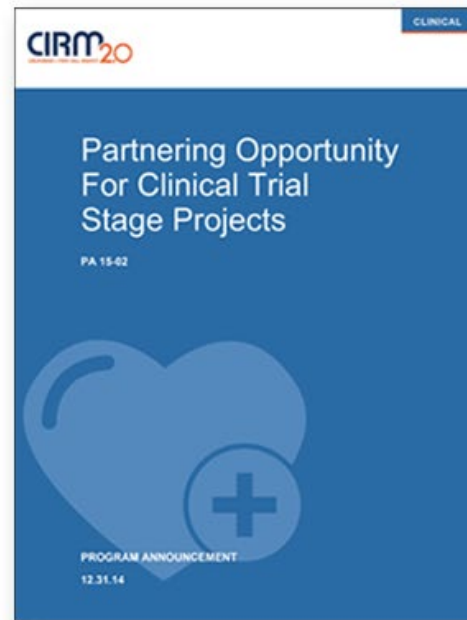
October 19, 2021

**CIRM**  
CALIFORNIA STEM CELL AGENCY

# Clinical Stage Programs



CLIN 1



CLIN 2



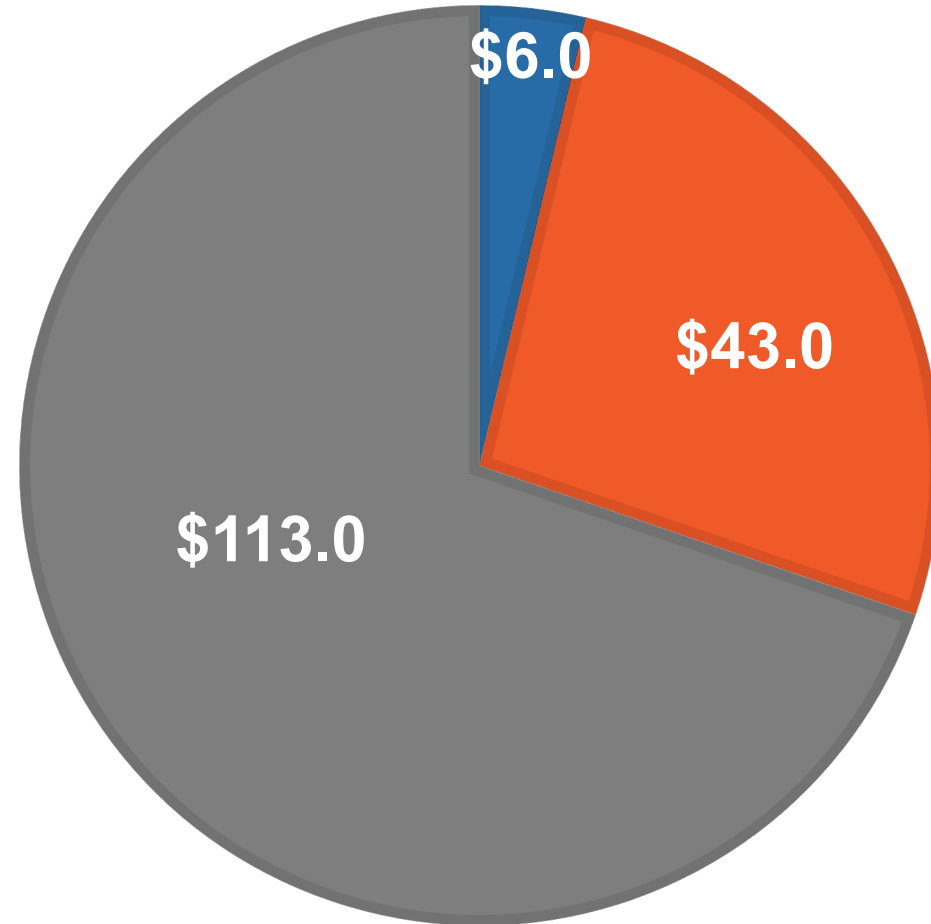
CLIN 3

# 2021/22 Clinical Budget Status

**Annual Allocation: \$162 million**

- Amount Requested Today
- Approved Awards
- Unused Balance

Amounts are shown in millions



# Review Criteria

1. Does the project hold the necessary significance and potential for impact? (i.e., what value does it offer; is it worth doing?)
2. Is the rationale sound? (i.e., does it make sense?)
3. Is the project well planned and designed?
4. Is the project feasible? (i.e., can they do it?)
5. Does the project address the needs of underserved communities?

# Scientific Scoring System for Clinical Applications

- **Score of “1”**

*Exceptional merit and warrants funding.*

*May have minor recommendations and adjustments that do not require further review by the GWG*

- **Score of “2”**

*Needs improvement and does not warrant funding at this time but could be resubmitted to address areas for improvement.*

*GWG should provide recommendations that are achievable (i.e., “fixable changes”) or request clarification/information on key concerns.*

- **Score of “3”**

*Sufficiently flawed that it does not warrant funding and the same project should not be resubmitted **for at least 6 months.***

Applications are scored by all scientific members of the GWG with no conflict.

# Elements in CIRM Application Review

- **Addressing the Needs of Underserved Communities**
  - This section describes the applicant's plan for outreach and enrollment of a diverse patient cohort that accounts for racial, ethnic and gender diversity
  - The section is evaluated as part of the overall project and incorporated into the scientific merit score (1, 2 or 3)
- **Diversity, Equity and Inclusion**
  - This section describes how the applicant team incorporates diverse perspectives and experiences to improve the project through the composition of the team and/or any other approaches
  - This section is evaluated and scored by patient advocate/nurse members of the Board (appointed to the GWG) and shown in the DEI score (0-10)

# CLIN1-12880: A Cell Therapy for Articular Cartilage Repair

<b>Therapy</b>	Pluripotent stem cell-derived chondrocytes on a scaffold
<b>Indication</b>	Focal articular cartilage lesions of the knee
<b>Goal</b>	Submission of IND to the FDA
<b>Funds Requested</b>	\$5,999,782 (co-funding: \$0)

Maximum funds allowable for this category: \$6,000,000

# CLIN1-12880: Background Information

**Clinical Background:** Articular cartilage injury can progress to osteoarthritis in a majority of patients that are not treated. Development of osteoarthritis may require total joint replacement surgery to treat in some patients.

**Value Proposition of Proposed Therapy:** The current standard of care for articular cartilage injury is primarily palliative and focused on reducing inflammation and pain. The proposed therapy has the potential to halt degenerative joint disease resulting from injury and prevent progression to osteoarthritis.

**Why a stem cell project:** The therapeutic candidate is manufactured from human embryonic stem cells and differentiated into chondrocytes.



# **CLIN1-12880: Similar CIRM Portfolio Projects**

No other currently active projects in the CIRM portfolio addressing articular cartilage repair or osteoarthritis.

CIRM is supporting other projects in osteonecrosis (avascular necrosis) of the hip and infantile malignant osteopetrosis, a rare genetic disorder.

# CLIN1-12880: Previous CIRM Funding to Applicant Team

Project Stage	Indication	Project Outcome	Project Duration	Award Amount	Milestones/Aims
Translational (Closed)	Articular cartilage repair	Conduct pre-IND meeting w/ FDA	Mar 2017 – Dec 2019	\$2,503,104	<p><b>M1-M4:</b> Develop manufacturing process; assess toxicity, efficacy, immunogenicity; determine dose (<b>Achieved on time</b>)</p> <p><b>M5:</b> Conduct pre-IND meeting with FDA (<b>Achieved on time</b>)</p>
Basic biology (Closed)	Articular cartilage repair	Develop strategy for articular cartilage restoration using hPSC	Sep 2015 – Dec 2017	\$735,138	<p><b>Specific Aims 1-3:</b> Role of pericytes in survival/hypertrophy of hPSC-derived chondrocytes; ability of hPSC-derived chondrocytes to differentiate into articular cartilage (<b>Achieved on time or minor delay</b>)</p>

# CLIN1-12880: GWG Review

**GWG Recommendation:** Exceptional merit and warrants funding

Scientific Score	GWG Votes
1	13
2	1
3	0

**DEI Score:** 8

**CIRM Team Recommendation:** Fund (concur with GWG recommendation)

**CIRM Award Amount:** \$ 5,999,782\*

\*Final award shall not exceed this amount and may be reduced contingent on CIRM's final assessment of allowable costs and activities.