

# GWG Recommendations: Clinical Program (CLIN1, CLIN2, CLIN4)

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Development and Review

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# Our Mission

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Accelerating world class science to deliver transformative regenerative medicine treatments in an equitable manner to a diverse California and world.

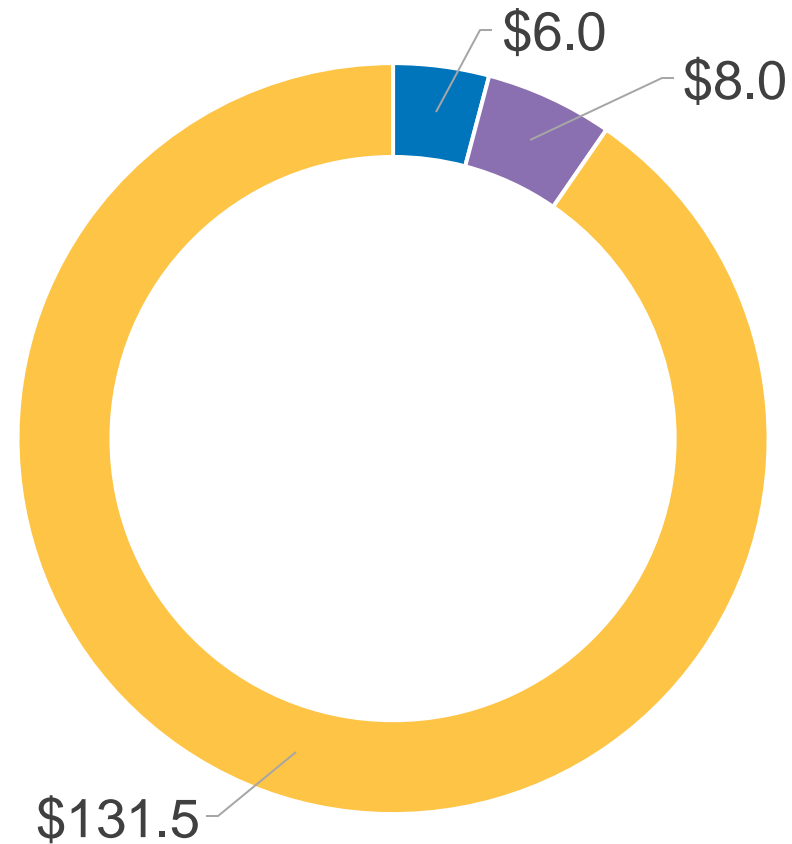
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# Clinical Budget Status

Annual Allocation: \$145.5 million  
(July to December 2024)

- Amount Requested Today
- Approved Awards
- Unused Balance



# Clinical



## Scientific Scoring System

- **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.

# Clinical



## Scientific Review Criteria

1. Does the project hold the necessary significance and potential for impact? (*what value does it offer; is it worth doing?*)
2. Is the rationale sound? (*does it make sense?*)
3. Is the project well planned and designed?
4. Is the project feasible? (*can they do it?*)
5. Does the project uphold principles of diversity, equity, and inclusion (DEI)? (*e.g., does it consider patient diversity?*)

# Clinical



## Diversity, Equity and Inclusion Scoring System

- DEI Score of 9-10: *Outstanding Response*
- DEI Score of 6-8: *Responsive*
- DEI Score of 3-5: *Not Fully Responsive*
- DEI Score of 0-2: *Not Responsive*

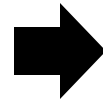
Applications are scored for adherence to principles of DEI by all GWG Board Members with no conflict.

The criteria used to measure adherence fall under overarching categories of: Commitment to DEI, Project Plans and Cultural Sensitivity.

# Clinical



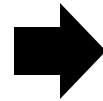
Scientific GWG  
Members



Scientific evaluation (disease area expert, regulatory, CMC, product development)

Provides scientific score on all applications

GWG Board  
Member  
(Patient Advocate/Nurse)

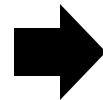


DEI evaluation, patient perspective on significance and potential impact, oversight on process

Provides DEI score on all applications

Provides a suggested scientific score

Scientific  
Specialist  
(non-voting)



Scientific evaluation (specialized expertise as needed)

Provides initial but not final scientific score

# CLIN1-14789

IND-enabling program for the secretome from polarized stem cell-derived RPE cells, for the treatment of dry-age related macular degeneration

## FUNDS REQUESTED

\$5,993,562

Co-funding: \$0 (none required)

California organization



## THERAPY

Secreted factors from polarized Retinal Pigment Epithelium (RPE) cells



## INDICATION

Geographic Atrophy (advanced dry-age related macular degeneration)



## GOAL

IND filing for the therapeutic candidate



# CLIN1-14789 Background Information

## Clinical background

Age-related macular degeneration (AMD) is a leading cause of vision loss in the developed world. Geographic atrophy (GA), is the late-stage form of dry AMD, where supportive retinal pigment epithelium cells (RPE) degenerate over time. RPE loss contributes to the death of photoreceptors that then leads to visual impairment in late stages of the disease.

## Value proposition of proposed therapy

There are two approved products on the market, but they do not improve vision. This product contains multiple factors that provide an improved environment for photoreceptor survival and function, with a goal to preserve vision. The product is likely to be cheaper and easier to produce than RPE cell therapies.

## Why a stem cell or gene therapy project

The therapy is made from stem-cell derived RPE cells.

# CLIN1-14789 Similar CIRM Portfolio Projects

Application/ Award	Project Stage	Project End Date	Indication	Candidate	Mechanism of Action
TRAN1 \$3,998,930	Preclinical	Q4 2024	Dry age-related macular degeneration	Allogeneic cryopreserved neural stem cell therapy product	Implanted cells exert protective effects over target areas and could restore areas of geographic atrophy.
TRAN1 \$4,235,758	Preclinical	Q1 2025	Geographic atrophy	Optogenetic gene therapy for patients with geographic atrophy	Gene therapy to deliver optogenetic protein to the targeted cells of the retina to restore vision.
CLIN1 \$6,000,000	IND enabling	Q2 2025	Maculopathies related to RPE atrophy	Patient specific (autologous) induced pluripotent stem cell derived RPE	A cell replacement to the endogenous RPE layer in patients with advanced RPE atrophy.
CLIN2 \$4,009,675	Phase 1/2a Clinical Trial	Q2 2028	Dry age-related macular degeneration	Retina pigment epithelial stem cell (RPESC)-derived RPE progeny	The cell product aims to replace the RPE cells that have been lost due to disease.
CLIN2 \$12,373,748	Phase 2 Clinical Trial	Q3 2027	Geographic atrophy	hESC derived RPE cells on a paralene membrane	Replace dying RPE cells in the eye to promote survival of the cells of the adjacent retina.

# CLIN1-14789 Previous CIRM Funding to Applicant Team

Application/ Award	Project Stage	Project End Date	Indication	Candidate	Mechanism of Action
TRAN1 \$3,697,935	Preclinical	Feb 2023	Dry AMD	Secreted factors from polarized Retinal Pigment Epithelium (RPE) cells	Multiple neuroprotective and anti-inflammatory factors provide an environment for photoreceptor survival and function.
CLIN/DR3 \$16,339,827	Phase 1 clinical trial	July 2019	Geographic Atrophy (Advanced dry AMD)	Stem cell-derived RPE cells on membrane implants	RPE cells arranged on a membrane sheet aim to replace the damaged RPE cells to restore function.
CLIN/DR1 \$18,904,916	Preclinical	Dec 2014	Dry AMD	Retinal pigment epithelium (RPE) derived from human embryonic stem cells (hESC)	RPE cells arranged in a membrane sheet aim to replace the damaged RPE cells to restore function.

# CLIN1-14789

## GWG Review

IND-enabling program for the secretome from polarized stem cell-derived RPE cells, for the treatment of dry-age related macular degeneration

**CIRM Award Amount:**  
**\$5,993,562\***

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

## GWG RECOMMENDATION

Exceptional merit and warrants funding

Scientific Score	GWG Votes
1	8
2	6
3	0

## DEI SCORE

8 (scale 1-10)

## CIRM TEAM RECOMMENDATION

Fund (concur with GWG recommendation)

# C I R M

CALIFORNIA INSTITUTE FOR  
REGENERATIVE MEDICINE

# Thank You



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