

SOMETHING  
BETTER  
THAN HOPE

Right now.

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California Institute for Regenerative  
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**CIRM**  
CALIFORNIA / STEM CELL AGENCY

Every Moment Counts. **Don't Stop Now.**

# Clinical Stage Programs

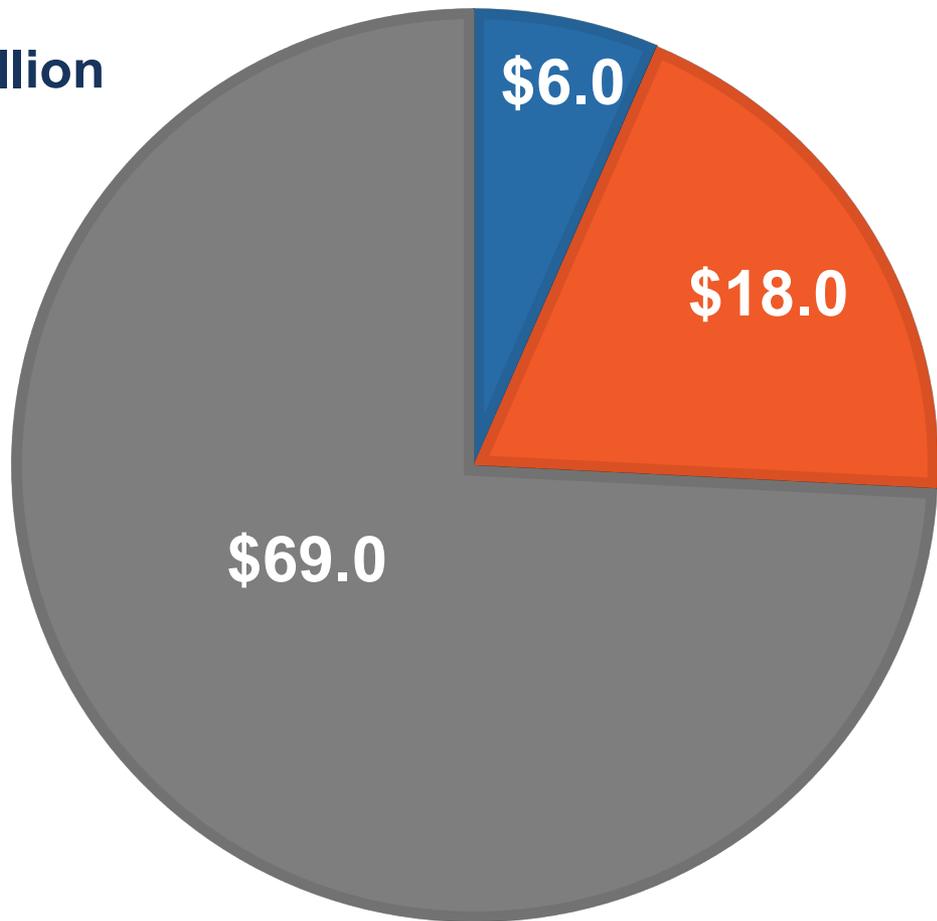


# 2019 Clinical Budget Status

**Annual Allocation: \$93 million**

- Amount Requested Today
- Approved Awards
- Unused Balance

Amounts are shown in millions



# 2019 Clinical Award Targets

**CLIN2**  
Clinical Trials



**CLIN1**  
Late Stage  
Preclinical



 Approved Award       Awaiting Today's Approval

# CLIN2-11431: Clinical Study of Therapy for Severe Combined Immunodeficiency

## Project Summary

<b>Therapy</b>	Anti-CD117 antibody followed by allogeneic CD34 <sup>+</sup> CD90 <sup>+</sup> cell transplantation
<b>Indication</b>	Severe Combined Immunodeficiency (SCID)
<b>Goal</b>	Complete phase 1 trial – 18 patients proposed <ul style="list-style-type: none"><li>• Clinical operations and management</li><li>• Patient enrollment, treatment, &amp; follow-up</li><li>• Antibody stability testing &amp; storage</li><li>• Regulatory activities</li></ul>
<b>Funds Requested</b>	\$5,999,984 (\$0 Co-funding)

Maximum funds allowable for this category: \$12,000,000

# CLIN2-11431: Clinical Study of Therapy for Severe Combined Immunodeficiency

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

Score	GWG Votes
1	9
2	6
3	0

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

**Award Amount:** \$5,999,984\*

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

# Related Award: DR2A-05365

## Award Summary

<b>Title</b>	<b>A monoclonal antibody that depletes blood stem cells and enables chemotherapy free transplants</b>
<b>ICOC Approval</b>	\$20,000,000 in July 2012
<b>Award Amount</b>	\$19,068,382
<b>Award Start</b>	August 2013 (4 year award)
<b>Goal in Application</b>	Conduct preclinical studies File IND Initiate a phase 1/2 clinical trial w/ 26 patients
<b>Goal in Contract</b>	Conduct preclinical studies File IND Complete phase 1 clinical trial w/ 40 patients

# TRAN & CLIN versus Disease Team 2



TRANSLATION



CLINICAL 1



CLINICAL 2

Single  
Candidate



Pre-IND  
Meeting



IND  
Approved



Ph1  
Complete

Average  
Non-  
Profit  
Award

**\$5M**

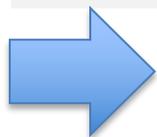
**\$5M**

**\$10M**

DISEASE TEAM 2 RESEARCH AWARDS

# Disease Team Award Timeline

Key Activities Completed	Date Achieved (Months Behind Original Target)	CIRM Disbursed to Date (% of Award)	Cumulative Funds Spent + Obligations
<b>IND Approved</b> Activities: <ul style="list-style-type: none"> <li>• GMP mfg of anti-CD34; anti-CD90</li> <li>• Tech transfer/stability of anti-CD117</li> <li>• PK/PD study</li> <li>• GLP Tox study</li> <li>• Pre-IND meeting</li> <li>• Assay validation</li> </ul>	April 2016 (9 months behind)	\$14.1M (74%)	\$10.7M + \$3.8M
<b>Enroll &amp; dose 1st patient</b>	May 2017 (9 months behind)	\$15.8M (83%)	\$15.6M + \$2.6M



## Award Converted to Operational Milestones & Disbursements:

**CIRM Funds Left** = \$3.3M

**Total Co-Funding Needed** = \$2.3M

# Operational Milestones & Disbursements

Operational Milestone	Est Date of Achievement	Date Achieved	CIRM Disbursement	Co-Funding Required
First 2 patients enrolled and transplanted	July 2017	July 2017	\$1,500,000	\$0
Complete first Group A (3 patients)	April 2018	May 2018	\$1,300,000	\$550,000
Complete second Group A & first Group B (~6 patients)	April 2019	TBD	\$300,000	\$1,625,000
Complete final Group A (~9 patients)	April 2020	TBD	\$200,000	\$159,953
Last patient completes 4-week safety eval and interim CSR submitted to CIRM	October 2020	TBD	N/A	N/A
<b>Total number of patients to be treated 24</b>		<b>Total</b>	<b>\$3,300,000</b>	<b>\$2,334,953</b>

# Estimated Per Patient Costs

- **Disease Team Award**

- Reserved \$5.5M for clinical trial activities
- Actual cost of treating 6 patients was \$5.5M
- Per patient costs was about \$917,000

- **New CLIN2 Proposal**

- Requested award amount is \$6M
- Activities are primarily clinical trial activities
- Per patient cost for 18 patients is about \$333,333

# Proposed Contingency Plan

<b>Risk #1</b>	<b>Risk</b>	<b>Mitigation Strategy</b>
	Delayed enrollment	Open additional trial sites, advertising, outreach
	<b>Associated Costs</b>	<b>Funding Source</b>
	\$12,000 per site \$15,000 per patient	PI, unrestricted funds

<b>Risk #2</b>	<b>Risk</b>	<b>Mitigation Strategy</b>
	Product loss of stability	Work with manufacture company to produce new lot
	<b>Associated Costs</b>	<b>Funding Source</b>
	\$2.9 M	Institutional investors, venture capital

# Applicant has provided a response to the following questions:

- Describe how remaining funds from the Disease Team Award and required co-funding will be utilized. Describe whether co-funds have been secured and source of co-funds.
- Describe how the already expended funds for the Disease Team Award were utilized and how they align with the budget and activities that were originally proposed, particularly for the phase 1 trial. Describe any delays, including the cause and impact on the progress of the project to achieve completion of the trial.
- Provide a high-level, activity-based justification for the additional funds requested in the CLIN2-11431 application to complete the phase 1 clinical trial.
- Justify the intended total number of patients to be enrolled for the phase 1 trial, including how many are covered by the Disease Team Award versus the new proposal.
- Provide a plan for advancing the therapeutic candidate through the phase 1 clinical trial and steps anticipated to ultimately commercialize the product.