Agenda Item #12 ICOC Meeting September 24th, 2015







now it's personal

Strategic Plan Executive Summary

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President and Chief Executive Officer





The Strategic Planning Process



Where are we now?

- Evaluate environment
- Confront brutal facts
- Confirm mission

Where do we want to go?

- Brainstorm options
- Benchmark
- Create a unique vision

How do we get there?

- Determine strategy
- Establish milestones
- Document the plan

Funding Runway



Current levels sufficient to last approximately 5 years



- \$2 billion awarded or spent
- \$775 million uncommitted
- \$190-200 million in new awards per year
- Estimated \$20 million in award reductions annually
- Projected NET commitment rate of \$170 million per year



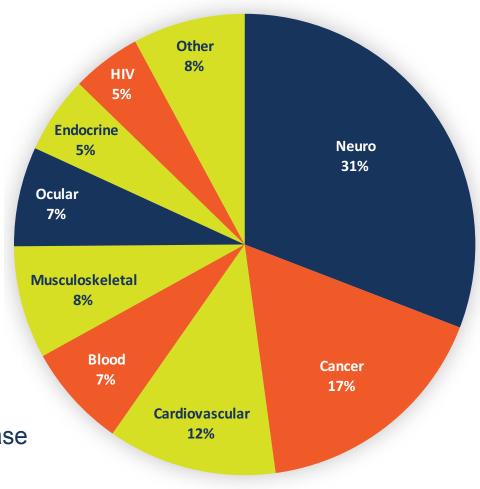
\$1.3 billion invested in disease specific research including

15 clinical trials

HIV/AIDS (3)

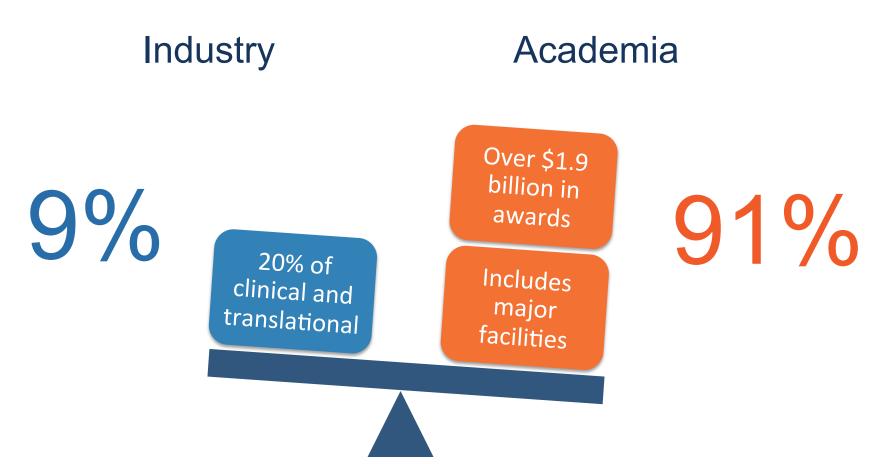
Solid Tumors (2)

- Heart Failure
- Leukemia
- Sickle Cell Anemia
- Spinal Cord Injury
- Type 1 Diabetes
- Macular Degeneration
- Retinitis Pigmentosa
- Malignant Melanoma
- Chronic Granulomatous Disease
- Glioblastoma





The vast majority of funding has gone to academia





\$2 billion allocated to CIRM's five major components



CIRM Existed as an Initiative Based Agency



Initiative	2006	2007	2008	2009	2010	2011	2012	2013	2014
Comprehensive Biology	X								
Seed	X								
Basic Biology				2X		X	X	X	
New Cell Lines			X						
Tools & Technology			X		X				X
Early Translation			X		X	X		X	
Preclinical Development									X
Disease Team				X			X	X	
Targeted Clinical Development					X				
Strategic Partnership							X	2X	
Accelerated Pathway									X

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CIRM 2.0 Introduced a Systems Based Approach

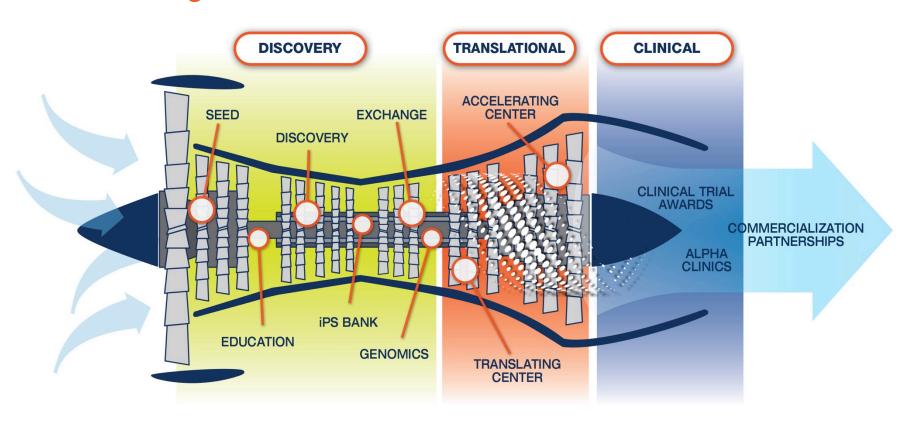


PROGRAM	2016	2017	2018	2019	2020
Seed	X	X	Х	X	X
Discovery	2X	2X	2X	2X	2X
Specific Question	2X	2X	2X	2X	2X
Translation	2X	2X	2X	2X	2X
IND/IDE Seeking	12X	12X	12X	12X	12X
Clinical Trials	12X	12X	12X	12X	12X
Accelerating Activities	12X	12X	12X	12X	12X

Assembling the Parts



Integrating the pieces will turn CIRM into a stem cell accelerating machine



Stakeholder Meetings



Key insights from an honest and thorough assessment

- Patient advocates want a more active role in achieving the mission
- Investigators want help with IND enabling translational activities and regulatory filings
- Every academic meeting included a request for help linking researchers at different stages
- Many of CIRM's programs are still not widely known to all potential partners

Interesting Survey Findings



Responses from 217 individual stakeholders

- Risk tolerance is high among all stakeholders (64% responded 4+ of 5)
- Number of therapies demonstrating proof of concept in humans is the most important metric of success (70%)
- 62% indicated that CIRM should fund projects that can receive funding from other sources only when it accelerates the project
- FDA is viewed as the biggest impediment to the development of stem cell therapies (70%)



Key insights from an honest and thorough assessment

- Historically, CIRM existed as an initiative (vs. system) based agency
- With a few exceptions, most priorities are aligned among stakeholders
- The translation stage represents a significant opportunity for CIRM to impact speed and efficiency
- Stem cells therapies continue to be disadvantaged (regulatory and commercial)
- The regulatory environment is seen as a major impediment to stem cell therapy





Mission Confirmation



First, have a great mission

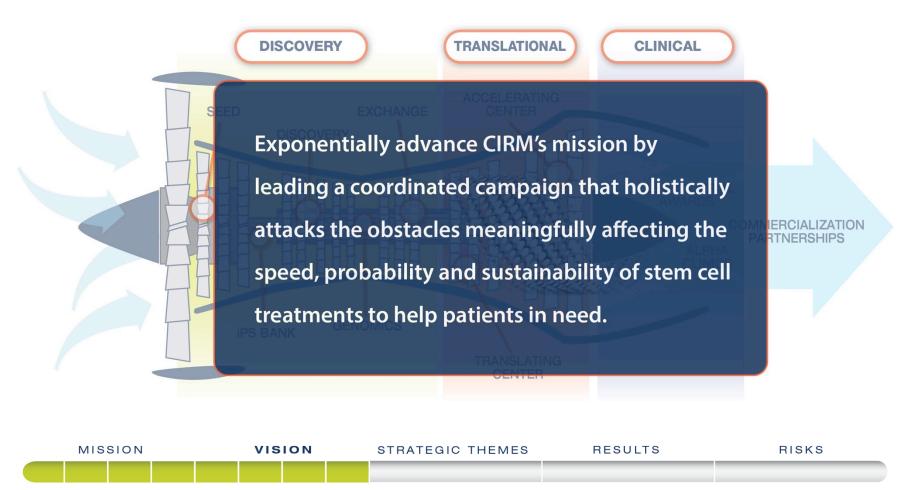
To accelerate stem cell treatments to patients with unmet medical needs.

96% of stakeholders agree with the mission

Where We Are Going



A **bold** vision to maximize CIRM's impact









STRATEGIC THEME

SPECIFIC ACTIONS

Accelerate stem cell treatments to patients with unmet medical needs



STRATEGIC THEME

SPECIFIC ACTIONS

PUSH

Operational Excellence

Accelerate stem cell treatments to patients with unmet medical needs



STRATEGIC THEME

SPECIFIC ACTIONS

PUSH Operational Excellence

- Fully Operationalize CIRM 2.0
- Construct Translation and Accelerating Centers
- Coordinate and Focus Programs

Accelerate stem cell treatments to patients with unmet medical needs





PUSH



STRATEGIC THEME

SPECIFIC ACTIONS

Accelerate stem cell treatments to patients with unmet medical needs

PUSH Operational

Excellence

- Fully Operationalize CIRM 2.0
- Construct Translation and Accelerating Centers
- Coordinate and Focus Programs

PULL
Engage Demand



STRATEGIC THEME

SPECIFIC ACTIONS

Accelerate stem cell treatments to patients with unmet medical needs

PUSH

Operational Excellence

- Fully Operationalize CIRM 2.0
- Construct Translation and Accelerating Centers
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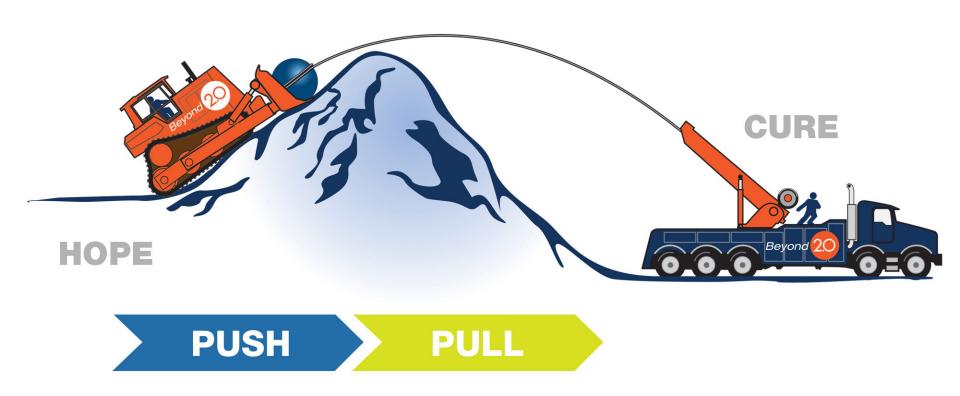
PULL

Engage Demand

- Launch the CIRM Exchange
- Public / Private Partnerships for Commercialization



RISKS



STRATEGIC THEMES

RESULTS

MISSION

VISION



STRATEGIC THEME

SPECIFIC ACTIONS

PUSH Operational

Operational Excellence

- Fully Operationalize CIRM 2.0
- Construct Translation and Accelerating Centers
- Coordinate and Focus Programs

Accelerate stem cell treatments to patients with unmet medical needs

PULL

Engage Demand

- Launch the CIRM Exchange
- Public / Private Partnerships for Commercialization

LEVEL
Lower Hurdles

- Organize an Army of Stakeholders
- Drive Regulatory Reform

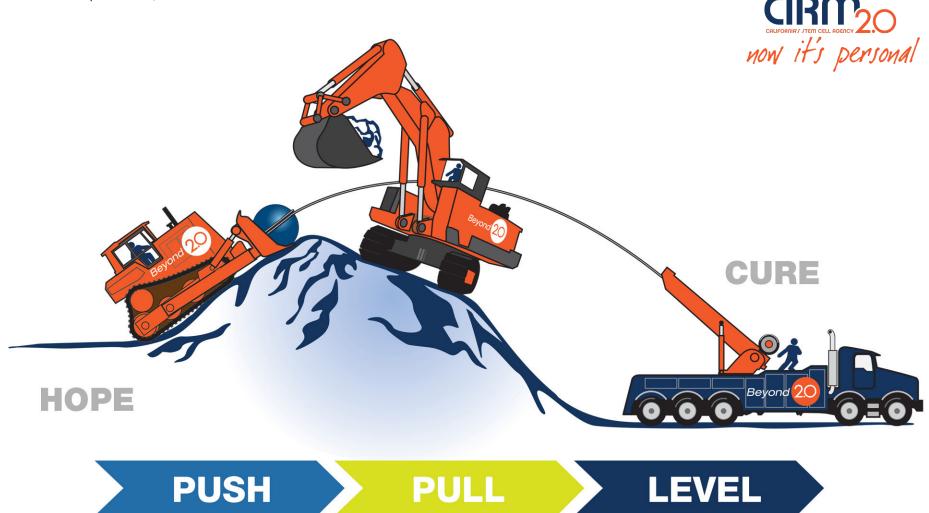
MISSION

VISION

STRATEGIC THEMES

RESULTS

RISKS



Beyond

Financial Outlook

PUSH



MISSION/VISION

STRATEGIC THEME

SPECIFIC ACTIONS

Accelerate stem cell treatments to patients with unmet medical needs

PULL Engage Demand

LEVEL Lower Hurdles

Program	2016	2017	2018	2019	2020	Total
Education	10	10	10	10	10	50
Discovery	15	50	50	35	30	180
Translation	25	40	45	35	30	175
Clinical	100	85	75	75	65	400
Infrastructure	e 15	15	20	20	15	85
Totals	165	200	200	175	150	890

Financial Outlook



MISSION/VISION

STRATEGIC THEME

SPECIFIC ACTIONS



INTENDED OUTCOMES

50 new clinical trials

20 unique diseases in clinical trials

5 pediatric and 10 orphan indications in trial

Increase progression events to 33%

Reduce preclinical time by 50%

Drive implementation of new FDA paradigm

Partner >50% of unpartnered clinical projects



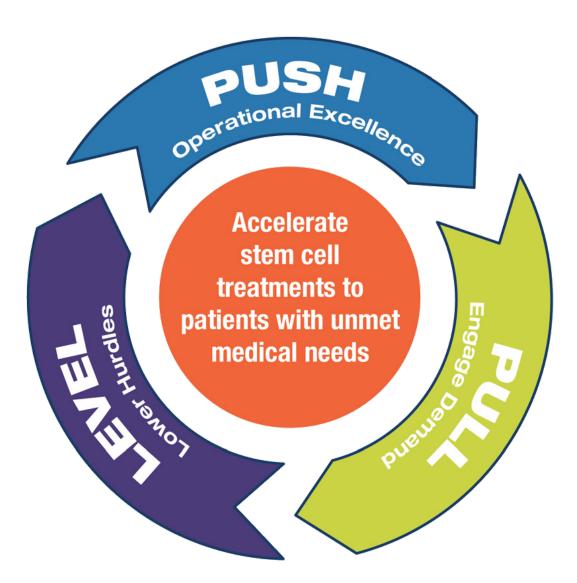
Key risks include but are not limited to the following

- There may be an insufficient number of meritorious therapeutic candidates to reach our goals
- There may be insufficient interest from qualified applicants to participate in key competitions
- The current limited funding of the agency could affect the ability to retain or attract personnel
- Investors may be uninterested in stem cell therapies
- The FDA may be unwilling to improve the regulatory environment

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Moving Beyond CIRM 2.0 with an **Integrated Approach**







Questions or comments?

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