

California Institute for Regenerative Medicine

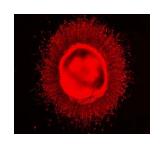
#1 Overview

External Review

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President

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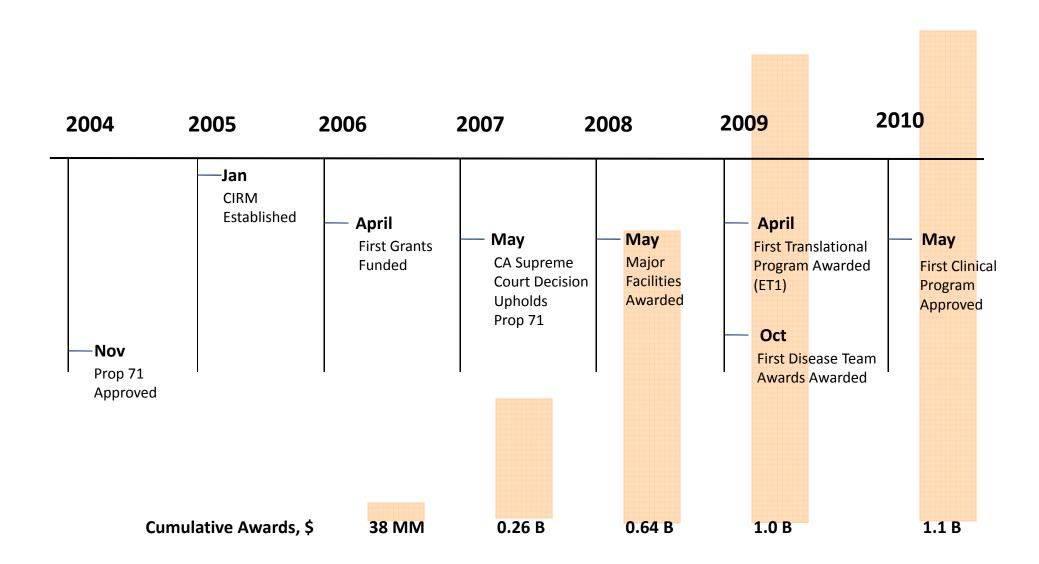


Purpose of Review Process

Formal assessment by an outside panel of the 2006 plan was recommended at years three and seven. Year 1 for the plan was designated to to start July 1, 2007

- Goals of the evaluation process are:
 - Evaluate CIRM's programs against its goals
 - Assess effectiveness in moving CIRM towards meeting its goals and accomplishing its mission
 - Recommend changes in CIRM's funding priorities to ensure that CIRM is supporting the most promising advances in the field of regenerative medicine
 - Other feedback as necessary

CIRM Timeline



Proposition 71

- Approved by 59% of CA voters (2004)
- Authorized \$3 billion of State
 Obligation Bonds to fund stem cell
 research in CA (max \$300mill/yr)
 <6% for admin.
- Established a 29 member Board that meets in public with CIRM Management (>8 times/yr) – all final funding decisions made by Board
- Required development of medical and ethical standards



California Institute for Regenerative Medicine

Gov Bonds

\$3 Billion

Collateral

funding/Pharma/ Clinical Trials

Research Capacity

Community support, industry and academia support, patient advocate partnership, transparency, quality

Stimulus to Cal. academic and biotechnology sector
Building institutional research excellence and

collaborations

Supporting the best scientists and science Encouraging translation of discovery to clinical opportunity International partnerships — enhancing the best - critical to success Investing in intellectual capital For the long-tem Amortizing costs across benefits

Economic benefits of patient cures and quality of life, reduced health care costs, commercialization concurrent benefit but not sole driver

Strategic Approach

Mission

Establish California as a World Class Leader in Regenerative Medicine by Building Infrastructure, Training Our Future Scientists & Funding Research Having the Greatest Potential to Yield Therapies Which Improve Patients' Lives & Relieve Suffering

Strategic Focus

Access to Most Promising Research

Leadership -Elimination of Barriers Infrastructure (Physical, Intellectual)



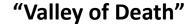


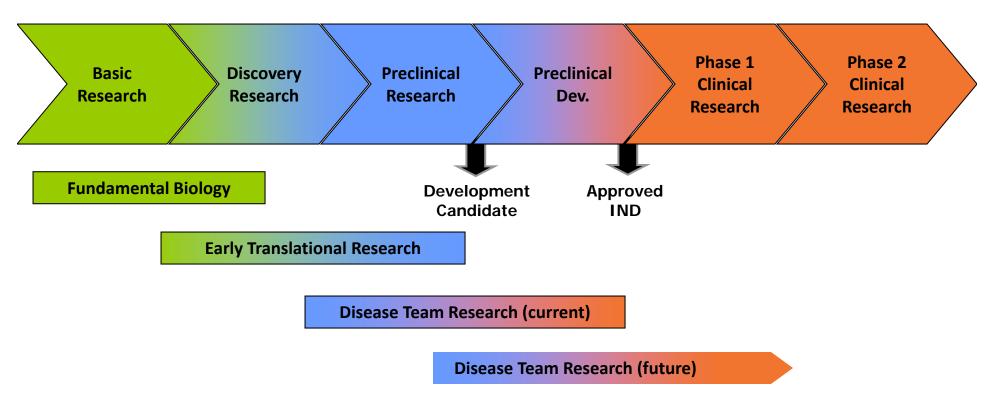
Initiatives

- Collaborative Funding Partners
- Academic /Comprehensive / Seed/ Basic Grants
- Leadership Awards
- Team Building
- Major Facilities
- Regulatory Outreach
- Industry Engagement

- Fellows Program
- Training Grants
- Bridges
- Shared Facilities
- •Tools & Technologies

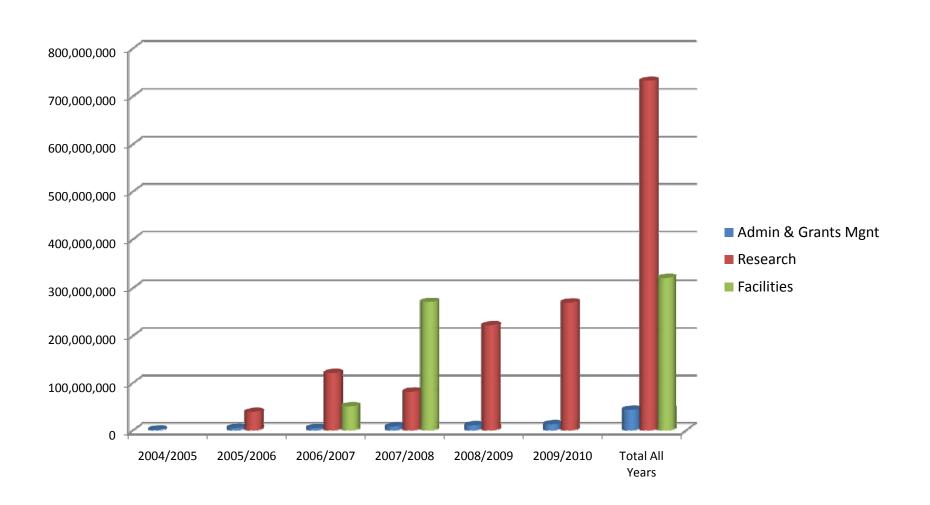
Core Programs: Sustaining a Pipeline





Clinical Investigation (future)

A New Institute – Allocation of funds – June 2010 Max 6% on admin and grants management



Where are we in the pipeline?

Facilities \$321mill Basic Research \$447mill

Translation to Clinic \$300mill



Publications, IP, expanding research sector, jobs, competitive advantage - **DISCOVERY**

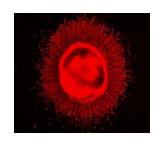
> Research teams, Biotech companies, jobs

> > - TRANSLATION

Clinical trials, cures, quality of life improvement, reduced health care costs

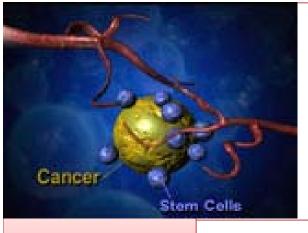
- CLINICAL BENEFITS





Major Milestones

- 364 research and facilities grants awarded
- 53 CA Institutes/Companies with CIRM grants
- 12 new institutes and centers of regenerative medicine ~\$1 billion (\$271mill from CIRM)
- \$1.07 Billion in grants allocated
- Over 600 major scientific papers published
- 102 new stem cell researchers in California
- Two clinical trials arising from CIRM funding
- 14 Disease Teams (preclinical) awarded up to \$20mill grants aimed for IND (FDA) within 4yrs
- First Clinical RFA released for hESC derived therapy







Regulatory

Pathway





J'am

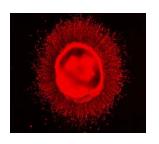








Commercialization



Vision

- Maintain a strong discovery platform of basic research
- Training the next generation of stem cell scientists
- Link the best researchers globally with California
- Encourage team collaborations across institutes, state boundaries, public-private sectors
- Manage the portfolio to optimize outcomes
- Be open to new developments and embrace innovation with optimism
- Recognize excellence in basic and translational research and support their new directions

CIRM Operational Excellence

Engage with stakeholders and have their strong support

Clarity of purpose

<u>Transparency of decisions</u>



Openness and excellence

Back the best proposals; be flexible

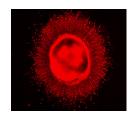
Be responsive and clear about direction



Make smart decisions

Benefits of cures – to patients and to State

Leverage investments and create returns



Questions to consider

- Is CIRM selecting proposals that will maximally accelerate the field?
- Does CIRM's Core Grant program offer a sufficient blend of predictability and flexibility to get the best proposals?
- Are we providing effective oversight to maximize the pace of success of individual projects and the synergy between projects?
- Which process improvements deserve the highest priority?
- Should CIRM speed up its rate of investment or reserve more funds to better take advantage of advances in the field?
- Is there something more CIRM should be doing to get effective handoff to industry?
- Should CIRM be doing more to assure Intellectual Property discovered with its funding is properly protected with patents?
- Which new initiatives under consideration (page 40 in Briefing) deserve highest priority?
- Which initiatives should CIRM engage in to mitigate potential challenges?
- Should CIRM seek added financing to extend its funding program?

