

Proposed CIRM Grants Program:
Innovation in hESC Research

ICOC meeting
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California Institute For Regenerative Medicine

Innovation in hESC Research

- Purpose: To “jump-start” human embryonic stem cell (hESC) research in California
- Problem: hESC research is on-going, but needs more robust funding to be fully competitive
- Needs:
 - Expansion of on-going research
 - New people and new ideas
 - Laboratories for hESC culture
 - Instruction in techniques of hESC culture



Proposed Requests for Applications (RFAs)

1. Comprehensive Research Grants
2. Seed Grants
3. CIRM Shared Research Laboratory Grants
 - hESC culture techniques course at several institutions across the state

All awarded on a competitive basis, with review by the Grants Review WG, and by the Facilities WG, as appropriate



Requests for Applications (RFAs)

- Comprehensive research grants (up to 25)
 - Record of accomplishment in hESC research or closely-related field
 - Opportunity to expand research or take promising new directions based on current research
 - Must be related to long-term therapeutic goal
 - Topics include, but are not limited to:
 - Self-renewal and differentiation of hESCs
 - Derivation of new hESC lines, including disease-specific lines
 - Study of hESC-derived cells in animal models of disease
 - Assessing tumorigenicity of hESCs and cells derived from them
 - Reprogramming of adult human somatic nuclei
 - Studies related to identification, storage, maintenance, stability and storage of hESCs



RFAs (cont)

- Seed grants (up to 30)
 - Emphasis on new ideas, new investigators in the field
 - No prior record of hESC research required
 - No “preliminary data” required
 - Criteria will emphasize innovation



RFAs (continued)

- CIRM Shared Research Laboratory Grants (up to 15)
 - Dedicated laboratory for culture of hESCs, including cell lines that are outside the federal guidelines
 - Will support core equipment and trained personnel
 - Services available for scientists from nearby institutions without facilities
 - At up to five institutions, extra funds will be provided for formal course instruction, given several times per year for California scientists and trainees



Preliminary Budget Estimate

- Comprehensive Grants (25):
 - 4 years, \$400,000 per year project support (ca. \$800,000 total cost per year per grant)
 - Total cost for all grants first year: ca. \$20 M
 - Total cost for all grants over 4 years: ca. \$80 M



Preliminary Budget Estimate (cont)

- Seed Grants (30)
 - 2years, \$200,000 per year project support (ca. \$400,000 per year total cost per grant)
 - Total cost for all grants first year: ca. \$12 M
 - Total cost for all grants over 2 years: ca. \$24 M



Preliminary Budget Estimate (cont)

- CIRM Shared Laboratory Grants (without course) (up to 10)
 - up to \$2 M for capital costs (equipment, installation and minor renovations)
 - On-going costs of personnel and supplies for three years; up to \$200 K (total cost: ca. \$250 K)
 - Total cost for all grants: first year, ca. \$22.5 M; in subsequent years, ca. \$2.5 M per year
 - Total cost for all grants over 3 years: ca. \$27.5 M



Preliminary Budget Estimate (cont)

- CIRM Shared Laboratory Grants (with course) (up to 5)
 - up to \$2.5 M for capital costs (equipment, installation and minor renovations)
 - On-going costs of personnel and supplies for three years; up to \$400,000 (total cost: ca. \$500,000) per year
 - Total cost for all grants: first year, ca. \$15 M; in subsequent years, ca. \$2.5 M per year
 - Total cost for all grants over three years: ca. \$20 M



Preliminary Total Budgets

- Annual cost of the program:
 - Year 1 ca. \$69.5 M
 - Year 2 ca. \$37 M
 - Year 3 ca. \$25 M
 - Year 4 ca. \$20 M
 - **TOTAL** ca. \$151.5 M



Provisional Timetable

- Issue RFAs in September
- Aim for early December review of all applications
- First ICOC approval at February, 2007 meeting
- Parallel Facilities and Grants Review



Future Grants

- We expect to be funding a number of other kinds of grants in the future.
- Expect to issue next round of RFAs after consideration of the Scientific Strategic Plan
- If there is consensus at the October meeting about proceeding with a particular program, we can issue another RFA before the end of 2006.

