CIRM RFA-07-01

APPLICATION # CL1-00507-1

STAFF ANALYSIS

FEASIBILITY:

Project Scope: The project will convert existing space, previously used as a vivarium, for use as a shared research laboratory suite. Four tissue culture rooms would be outfitted with each contain three tissue culture workstations. The project also includes five equipment rooms, a storage room, and office space. The application includes documentation of the general scope of work that explains in some detail the planned renovations of the building space. The existing room configuration is to be largely retained with very little wall construction. The planned improvements to support systems include data cabling and a security system. The plans provided in support of the project are fully developed architectural design development drawings with all design issues resolved including circulation and placement of equipment.

The proposed improvements involve 3,064 gross square feet (gsf) encompassing 2,471 assignable square feet (asf). This equates to an assignable to gross ratio of 81 percent. The difference between gross and assignable would be the thickness of the walls, circulation or non-assignable utility space involved in the project. The amount of area involved could not be confirmed because the drawings, while very detailed, do not include a scale.

Project Management: The proposal identifies construction management processes that are in place at the institution. There is a specific plan to deal with cost over-runs that would involve reducing the scope of work should costs exceed the approved budget.

COST:

The construction cost of $1,055,200 is based on a budget of $450/square foot for laboratory space and $200/square foot for office space. No detailed estimate is provided to justify these amounts. It is noted that the major construction cost involved in the project is the upgrading of the air handling, air conditioning and electrical systems to address the new use. In that the space was initially used as vivarium space that can often be more intense in its air/electrical requirements than laboratory space, it is likely that some of the existing systems can be retained. The design fees, administrative costs and project contingency total represent 19 percent of the construction amount which is within the RFA budget guideline of 25 percent.

The overall cost per asf for the renovation work is $507. To convert this to a comparable figure for gross square feet (gsf) in a typical research-intensive building, one would assume an overall building efficiency of assignable-to-gross area of 60 percent. Thus, the 2,471 asf would equate to 4,118 gsf if one considers the full complement of building

space (e.g. the gross building area including circulation and support) constructed to support the area to be renovated. Using this calculated gross area, the cost per gsf would amount to $304/gsf. This provides a more meaningful comparison to new laboratory building construction costs. We conclude that the average cost for new laboratory construction would be about $600/gsf, excluding land and site utilities. This amount would vary widely within California, but is being used here as an indicator of new construction value for comparative purposes. Based on this comparison, we conclude that the renovation work represents about 51 percent of the cost of new laboratory space in a new building. Capital funding guidelines indicate that costs should not exceed about 65 percent of new construction in order to be considered a reasonably good investment to provide new hESC laboratory space.

The applicant indicates that the shared laboratory would be able to accommodate the NIH-free laboratory space needs for 14 Principal Investigators (PIs) based at the institution. Based on the total cost for the shared laboratory (not including equipment), the cost per PI is about $90,000. Based on CIRM funding only (construction and equipment) the cost per institutional-based PIs is $141,644.

The applicant has committed to addressing cost overrun of up to 7% or proposes to reduce scope.

TIMELINE:

The applicant began planning for the project in March 2007. The project schedule indicates that preliminary plans have been completed and working drawings will be initiated upon grant approval. The plan is to award a construction contract in January and complete construction by July 2008, assuming an August 2007 grant award.

INSTITUTIONAL COMMITMENT:

The applicant indicates that matching funds of $196,617 will be provided for the $983,083 request for CIRM construction funds. An additional amount of $68,843 in prior funds expended on hESC research laboratory renovations and equipment is also noted as being matching funds. The total amount of $265,501 represents 27 percent of the construction grant funding request, and exceeds the minimum matching requirement of 20 percent of the grant amount.

HISTORICAL PERFORMANCE:

Data for three projects undertaken between 1998 and 2003 ranging in cost from $209,000 to $47.5million were submitted in support of historical performance. The actual project costs were 3 percent higher than budgeted in one case, essentially at budget in one case, and 20 percent under budget in the other. The actual completion date lagged planned

completion by five and six months on two projects. For the other project, actual completion was two months ahead of planned completion. The number of change orders on these projects ranged from 4 to 35 with a value ranging from a credit to the project of $5,700 to additional cost of $1.5 million.

The applicant indicates that there has not been any laboratory renovation project undertaken at this institution in the last two years in the range of $1 million to $5 million.

RESPONSIVENESS:

Shared Laboratory: The applicant indicates that there are 14 researchers based at the host institution that are planning to undertake hESC research activities once additional NIH-free space is available. Some of the other users are at locations that have also requested share research laboratory grants.

Techniques Course: The applicant has not requested funding for a Stem Cell Techniques Course.

Facilities Work Group Issues

- **Costs** - How will the FWG resolve the cost overruns that may result in a reduction of project scope?

The grant management office will need to confirm that all conditions of the grant as indicated in the Grants Administration Policy have been met. This would include confirming that all past work is consistent with grant requirements for prevailing wage and other construction-related requirements. This includes confirmation that equipment funds are budgeted pursuant the Grants Administration Policy as adopted December 7, 2006.