



OFFICE OF THE EXECUTIVE VICE CHANCELLOR AND PROVOST

UNIVERSITY OF CALIFORNIA, MERCED
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February 9, 2009

Alan O. Trounson, PhD
President
California Institute for Regenerative Medicine
210 King Street
San Francisco, CA 94107

Re: Grant Number FA1-00614-1
UC Merced Stem Cell Instrumentation Foundry, UC Project No. 904000

Dear Dr. Trounson:

This letter confirms that the University of California, Merced is able to proceed with construction of its Stem Cell Instrumentation Foundry (SCIF), which is part of the CIRM Major Facilities Grant Program. The revised project conforms to the original program and budget parameters as identified in the original grant application. A new project schedule, budget and funding schedule will need to be approved as part of the award.

As indicated in my previous letter to you on this matter dated October 2008, it became clear to the University that a change in project location from an off-campus site (Castle Building 1200 in Atwater, CA) to a campus site in the Science and Engineering 1 building, in order to insure successful implementation of the project. We strongly believe that the change in project location results in a superior facility relative to the original proposal.

This response has been structured into six parts: background; budget, leverage and schedule; facilities and project description; program; operations; and concluding comments.

Background

Upon completion of early schematic design for the SCIF renovation project at Castle during Spring 2008, it was determined that the Castle building systems were not sufficient to provide the various utility services and back-up capabilities required for SCIF within the established budget. The additional complication of a long-term lease that the University maintains with Merced County for Castle Buildings 1200 and 1201, through year 2025, raised other issues considered problematic. As a result, the University requested an abeyance during project design to test the financial feasibility and constructability of the SCIF in the newly-constructed SE1 facility on campus.

The original UC Merced - CIRM major facilities grant proposal identified Castle Building 1200 (Atwater, California, about 8.5 miles from campus) as the location for the proposed UC Merced SCIF. The University entered into a long-term lease (year 2025) with Merced County (landlord) in order to acquire space necessary to accommodate initial academic and administrative programs prior to the campus opening in 2005. Castle was the initial home for many UC Merced staff, faculty, post docs and graduate students. The two buildings still accommodate a mixture of academic and administrative functions in office, research laboratories, warehouse and support space.

Portions of the Castle Buildings 1200 and 1201 were renovated between 2002 and present to provide more modern administrative and research space. While the buildings, constructed in 1989, are structurally sound and in good condition, they were designed as light-frame open joist warehouses attached to single-story office areas. The buildings have high bay structures with concrete masonry unit (CMU) exterior walls, some CMU interior shear walls, and light steel roof structures with standing metal seams.

This original CIRM Major Facilities Grant proposal described a renovation project in Castle Building 1200 to provide about 5,420 assignable square feet (ASF), or 8,180 gross square feet (GSF), for shared research laboratories and academic administrative support.

Construction for the SE1 project was funded by the State of California in 2001-02 and the facility was occupied in 2005. It accommodates programs for both the School of Engineering and the School of Natural Sciences by providing space for research, teaching and offices. The research space includes a combination of faculty laboratories, laboratory support space, shared (core) laboratories on the upper floors and a basement vivarium. Teaching space includes dry and wet instructional laboratories on the ground floor of the building. Faculty and academic offices are located primarily on the upper floors.

The SE1 building is three-stories in an "L" shape configuration with one long bar and one short bar. The long bar has a partial basement. The construction is cast-in-place concrete and includes low "E" dual-pane glazing, and metal roofs with and enclosed metal penthouse. The building is highly adaptable with flexible aspects designed to make renovations less costly and to take advantage of the robust building systems. The SE1 Executive Architect (architect-of-record) is Esherick, Homsey, Dodge and Davis Architecture in San Francisco, California.

The University has completed a technical review and cost study in conjunction with: GL Planning & Design—San Francisco (the Executive Architect for SCIF). The design team includes Davis Langdon, an independent cost estimator who has verified the construction cost for the SCIF research suite. The cost estimator indicates the cost per square foot as it appears in the current estimate is typical for a specialized clean room facility and its related research space. The project can be delivered within the existing budget parameters.¹

¹ SCIF Budget and Area Summary tables provide additional detail.

Budget, Leverage and Schedule

The SCIF budget changes resulting from the change in facility location are addressed below.

Project Cost: The total project cost for the SCIF has decreased from \$7,458,000 to \$6,120,000 (or, an 18% reduction). The new SCIF facility will dedicate 4,355 ASF (6,885 GSF) with a cost per square foot of \$1,300/ASF (\$822/GSF). These costs are typical for clean room facilities built in a university environment as evidenced by comparable projects within the UC System and according to Davis Langdon, the professional cost estimator used for this project. The costs are comparable to the previously submitted project at the Castle location. Additionally, the proportion of funding provided by each party is approximately the same as in the original proposal. The attached budget summary shows \$3,750,000 identified as CIRM funding; \$2,370,000 identified as University and Other Funding directly supporting the project.

Leverage: As a result of project location change, the University will provide new building shell and core space for the renovation project. The University has absorbed costs in support of the project that are not part of the formal CIRM request. This includes the cost associated with pre-design work, feasibility studies, and other University soft costs including staff time. The approximate value of the 6,885 GSF space in the SE1 building is \$2,754,000.¹

Schedule: The campus SCIF facility is currently in early schematic design. We anticipate that, with CIRM approval during or about March 2009, the campus would immediately commence full schematic design, begin construction during October 2009 and have the facility ready for occupancy by October 2010.

Facilities and Project Description

Moving the SCIF facility to campus provides significant benefits from a facilities perspective, including:

Campus-Owned Space: The location of the SCIF facility on campus removes the many issues associated with the construction of a public research facility in facilities owned by a third-party. There are increased administrative and operational efficiencies, including a more direct physical link between the campus research programs and the SCIF. Additionally, SE1, only four years old, is designed to support modern research with a useable lifetime of 75 - 100 years. As part of the SE1 building, the SCIF will benefit from a rigorous campus maintenance schedule.

¹ Based on actual 2002 design and construction costs for UCM Science & Engineering 1 building, adjusted for inflation (\$400/GSF * 6,885 = \$2,754,000).

Sustainable Design: The Castle Building 1200 facility was designed in a period that predated an emphasis on either energy efficiency or sustainable design. SE1 is a LEED Silver facility and under consideration to be approved LEED Gold by the certifying organization. In the design of the SE1 building, the project team followed best practices and guidelines (LABS-21, Pacific Gas & Electric's (PG&E) Savings-By-Design program) for lab-design and efficient air handling units and control systems were installed.

UC Merced has committed that all new construction and remodeling projects integrate a high degree of energy efficiency into design. Campus energy efficiency is a key part of overall campus environmental stewardship, and is also crucial in order to provide high quality learning, research, and working environment at a reasonable cost.

The SE1 building is further supported by the UC Merced's energy efficient infrastructure and utility systems. For example, the Central Plant uses a 2 million gallon chilled water tank that cools water efficiently, and therefore uses less energy than chilling water using conventional roof-top chillers on each building. The SE1 building uses efficient lighting systems, high-performance window glazing, architectural shading, and advanced building mechanical systems.

Improved Facilities Infrastructure: Upon evaluating the Castle facility during schematic design it was determined that the building infrastructure could not support the project as proposed.

In contrast, the SE1 building is supported by the campus' robust physical systems. The campus has dual PG&E electrical feeds as well as emergency generators. The first PG&E feed provide normal power. The second PG&E feed provides back up or emergency power. The emergency generators provide a third level of power and back up the second feed.

It has been determined that even with significant additional investment in facilities upgrades for the Castle facility, the Castle location would not be sufficient to provide the type of physical infrastructure necessary to support the SCIF.

Security: The security network for on-campus facilities exceeds the capabilities of the Castle building. Should SCIF be housed on-campus, the facility would benefit from increased police presence (our on-campus police force conducts round-the-clock patrols of all campus buildings), multiple remote monitoring cameras, and a rapid on-campus response team.

Ancillary Facilities: There are ancillary facilities and functions located on-campus that would be utilized in support in the SCIF facility. Such functions include: facilities management, environmental health and safety, locksmith, machine shop, housing, and an information technology support unit.

Program

The SCIF space program includes 4,355 assignable square feet (ASF) and 6,885 gross square feet (GSF) representing 80% of the ASF and 84% of the GSF compared to the original project. A core question raised by CIRM relates to the impact this reduction in size will have on the proposed program.

The reduction in size will not compromise the research program. The facility retains all key components for the program including a clean room for micro/nanofabrication, dedicated rooms for culture of human and non-human cells, a dedicated area for quantitative cell imaging, a dedicated area for flow cytometric analysis and sorting, room for image analysis, as well as support rooms for technical and administrative staff and offices and interactive and office space for faculty and students.¹

The goal of the program to be housed in the SCIF remains the same as in the original proposal: to support quantitative analysis of single cells in precisely controlled microenvironments. The facility will support research needs of stem cell faculty at UC Merced as well as enable other stem cell researchers in California to integrate similar approaches and access state of the art technologies to address biological questions related to stem cells in their program. Briefly, the approach integrates lab-on-a-chip technology, generated in the clean room, with quantitative image analysis, flow cytometry and cell culture analysis/ability. The equipment for chip fabrication can be accommodated in the revised clean room, with no loss of capacity. The laminar air flow hoods and incubators can be accommodated in the tissue culture rooms, with no reduction in cell culture capabilities. The flow cytometer and sorter will be accommodated in the flow sorting room, which remains dedicated to cell analysis and sorting. Image analysis will be performed within SCIF and will allow access to six microscopes as indicated in the original plan. Thus, the capabilities to design and fabricate chips, and perform cell culture, cell analysis and sorting will be unaffected by the reduction in facility size.

The productivity, efficiency and robustness of the facility can be evaluated by the capability of UC Merced investigators to access the clean room services to generate lab on a chip for their research, to sort and culture stem cells and to perform quantitative analysis of cells on chips. Since the clean room will operate with a director and staff, most investigators will not be entering the clean room for chip production. Similarly, external investigators desiring chips will design them on-line or while visiting at UC Merced; they will not have the training to work in a clean room, and will not enter the facility. The facility size is clearly compatible with chip generation for research laboratories. In the facility at Castle, the number of rooms dedicated for culture, image analysis and sorting are identical to those in the revised scope. Thus, capabilities are not reduced for these functions. The capabilities of the facility to support UC Merced stem cell faculty, as well as serve as a regional resource, are unchanged.

¹ See attached research suite layout

The move to SE1 provides significant advantages to the Stem Cell Program by locating the program housed in SCIF in the same building where campus faculty have their offices and research laboratories. This results in significant time savings for students, staff and faculty by avoiding the need to travel to a more distant facility at the Castle location. Furthermore, populations from which individual stem cells are analyzed using a lab on a chip technology can simultaneously be analyzed using additional approaches, such as transplantation, or other functional assays, carried out in the vivarium or the primary laboratory of stem cell researchers in SE1.

Proximity is one of the foundational steps in creating synergies, and the stem cell faculty is enthusiastic about the co-location of SCIF in SE1 where their research laboratories are located. Though not included as part of our formal submittal documents, locating the SCIF facility within SE1 adds more than 4,500 ASF in synergistic space already dedicated for office and research lab space for the eight principal investigators associated with the SCIF program.¹ The inclusion of such space within SE1 raises the total space, both SCIF-dedicated as well as space previously-assigned to SCIF PIs, to more than 8,500 ASF.

Operations

The operations plan for the UC Merced SCIF facility is intended to enable the initial launch of the facility immediately upon completion supporting current research needs of UC Merced faculty, growing to a full-featured facility supporting research needs of other nonprofit researchers and, to a lesser extent, commercial investigators. Organizationally, the SCIF will fall under UC Merced’s Office of Research and report to the Vice Chancellor for Research. Administrative and technical support will be provided initially by existing staff of the Office of Research, but dedicated professional staff will be hired as quickly as possible. The overall administrative and operational structure of the SCIF is shown in Figure 1.

Figure 1

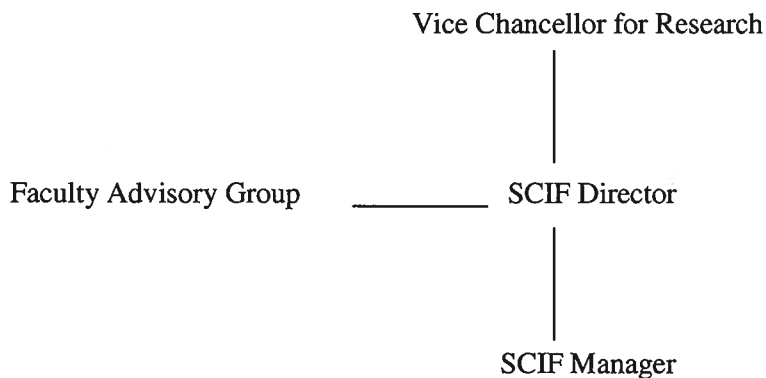


Figure 1: *Administrative structure of the UCM SCIF facility.*

¹ Attached table “Dedicated + Synergy Space” provides additional detail.

A summary of the anticipated administrative and technical support staff is as follows:

SCIF Director:

The position of SCIF Director will be held by a UC Merced faculty member whose scholarship is central to the mission of the SCIF.

SCIF Faculty Advisory Group:

The SCIF Faculty Advisory Group (SFAG) will consist of not fewer than five UC faculty, each appointed for a term of not less than three years. Not fewer than three of these individuals will be regular UC Merced faculty and at least one member of the SFAG will be a regular faculty member at a sister UC campus appointed for a term of not less than one year. The SFAG will meet at least quarterly to review the overall productivity and operational efficiency of the SCIF, and to provide council to the Senior Staff of the SCIF.

SCIF Staff:

Initially the SCIF staff will consist of the SCIF Facility Manager. Administrative support will be provided by UC Merced's Office of Research. Technical support staff will be added as needed. Salary support for the latter will in part come from recharge revenues.

SCIF Manager:

The SCIF Facility Manager will oversee directly all technical operations of the SCIF and will have overall responsibility for activities scheduling, production management, safety and quality control, and SCIF infrastructure maintenance. The SCIF Manager will interface on a regular basis with other operational support units across campus as needed including Physical Planning, Design & Construction; Facilities Management; Information Technologies; Office of Research; Environmental Health and Safety; and Academic Affairs. The SCIF Manager will have major responsibilities for assisting the Director with SCIF strategic planning, and for establishing the charging structure for the SCIF. Should the CIRM grant funds be allocated in support of the relocated SCIF, the campus has committed funds to hire a SCIF Manager prior to opening and operating the SCIF.

The SCIF will operate on a recharge basis. As per federal guidelines set forth in OMB circular A-21, there will be one fee structure established for researchers from non-for-profit institutions. Recharge rates will be established to cover the cost of expendable materials and supplies, equipment maintenance, and a portion of the salaries of the support staff. Development of this recharge schedule will be one of the initial tasks of the SCIF Manager. The fee structure will be comparable to existing fees charged at similar facilities throughout the University of California.

The SCIF will also provide limited services to investigators from for profit institutions; however, these will be offered at a recharge rate commensurate with commercial vendors. The latter activity will be very limited in scope as state and federal laws prohibit the significant use of UC facilities for commercial purposes.

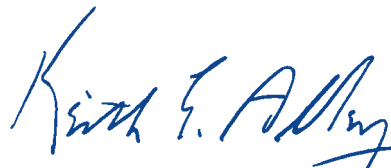
Concluding Comments

It is my hope that this letter, as well as the accompanying documents, provides resolution of any outstanding issues related to the shift of the SCIF facility's location – the reasoning behind the change in location, an updated budget analysis of the project costs, and the programmatic and facilities value created by hosting the facility on campus. We also look forward to your planned visit to the campus on March 6, 2009. A draft Agenda is included with this letter.

The campus is ready to proceed with the SCIF upon CIRM's approval.

Please contact me if there are any questions or if further information is required. Vice Chancellor – Research Samuel Traina (straina@ucmerced.edu) and Dean – Natural Sciences Maria Pallavicini (mpallavicini@ucmerced.edu) are contacts for regarding the research program. Capital Planning Director - John White (jwhite@ucmerced.edu) regarding scope, schedule and budget information.

Sincerely,



Keith E. Alley
Executive Vice Chancellor
and Provost

Attachments (See List *)

CC:

Michael Chow, Senior Project Director
Thomas Lollini, Associate Vice Chancellor – PPD&C
Mary E. Miller, Vice Chancellor - Administration
Maria Pallavicini, Dean – Natural Sciences
Samuel Traina, Vice Chancellor – Research
Thea Vicari, Director – Sponsored Projects
John O. White, Director – Capital Planning and Space Management

California Institute for Regenerative Medicine
February 9, 2009
(*) LIST OF ATTACHMENTS

- CIRM Budget/Cost Table
- Project Schedule
- Drawdown Schedule
- Project Area Summaries
- Floor Plans and Research Suite Layout
- Construction Cost Estimate
- Site Visit Information

UC MERCED STEM CELL INSTRUMENTATION FOUNDRY - FEBRUARY 2009 REVISION

Science and Engineering 1 - Proposal

B - 2. AS PROPOSED BASED ON GRANT AWARD AMOUNT (Construction Estimated)						
line	COSTS/FUNDING	CIRM	Matching	Other	Total	%
1	Construction	\$ 3,375,000	\$583,000	\$0	\$3,958,000	69.9%
2	Construction support	\$375,000	\$326,000	\$0	\$701,000	12.4%
3	Design, struct/seismic		\$390,000	\$0	\$390,000	6.9%
4	Design, Other		\$0	\$0	\$0	0.0%
5	Proj Mgmt & admin		\$203,000	\$0	\$203,000	3.6%
6	SUBTOTAL	\$3,750,000	\$1,502,000	\$0	\$5,252,000	92.8%
7	Contingency		\$410,000	\$0	\$410,000	7.2%
8	TOTAL P_W_C	\$3,750,000	\$1,912,000	\$0	\$5,662,000	100%
9	Group 2 Equipment		\$0	\$458,000	\$458,000	
9.1	Flexible Gr 2 Equip			\$0	\$0	
10	TOTAL PROJECT	\$3,750,000	\$1,912,000	\$458,000	\$6,120,000	

Analytical Data	CIRM Funds	Match+Other Funds	Total
Assignable square feet			4,355 ASF
Gross square feet			6,885 OGSF
Ratio (ASF Current / OGSF)			63.3% to 1.00
PWC Cost Per ASF	\$861	\$439	\$1,300 /ASF
PWC Cost Per OGSF	\$545	\$278	\$822 /OGSF
Equipment Cost Per ASF			\$105 /ASF
Equipment Cost Per OGSF			\$67 /OGSF



UC MERCED STEM CELL INSTRUMENTATION FOUNDRY - ORIGINAL PROPOSAL FEBRUARY 26, 2008
 Castle Building, 1200 Proposal

A. AS SUBMITTED IN APPLICATION

line	COSTS/FUNDING	CIRM	Matching	Other	Total	%
1	Construction	\$ 4,688,600	\$ 1,172,400	\$ 0	\$ 5,861,000	83.7%
2	Construction support	\$ 439,200	\$ 108,800	\$ 0	\$ 548,000	7.9%
3	Design, struct/seismic		\$ 50,000	\$ 0	\$ 50,000	0.7%
4	Design, Other		\$ 0	\$ 0	\$ 0	0.0%
5	Proj Mgmt & admin		\$ 130,000	\$ 0	\$ 130,000	1.9%
6	SUBTOTAL	\$ 5,128,800	\$ 1,462,200	\$ 0	\$ 6,591,000	94.2%
7	Contingency		\$ 409,000	\$ 0	\$ 409,000	5.9%
8	TOTAL P.W.C	\$ 5,128,800	\$ 1,871,200	\$ 0	\$ 7,000,000	100%
9	Group 2 Equipment		\$ 0	\$ 458,000	\$ 458,000	
9.1	Flexible Gr 2 Equip		\$ 0	\$ 0	\$ 0	
10	TOTAL PROJECT	\$ 5,128,800	\$ 1,871,200	\$ 458,000	\$ 7,458,000	
Analytical Data		CIRM Funds	Match+Other Funds	Total		
Assignable square feet				5,420 ASF		
Gross square feet				8,180 OGSF		
Ratio (ASF Current / OGSF)				66.3% to 1.00		
PWC Cost Per ASF		\$ 946		\$ 345		
Equipment Cost Per OGSF		\$ 627		\$ 228		
Equipment Cost Per ASF						
Equipment Cost Per OGSF						

UC MERCED STEM CELL INSTRUMENTATION FOUNDRY - MAY 7, 2008 AWARD ANNOUNCEMENT
 Castle Building 1200 Proposal

B - 1. AS PROPOSED BASED ON GRANT AWARD AMOUNT (Construction Estimated)

line	COSTS/FUNDING	CIRM	Matching	Other	Total	%
1	Construction	\$ 3,923,480	\$ 1,667,720	\$ 0	\$ 5,591,200	82.7%
2	Construction support	\$ 436,000	\$ 183,800	\$ 0	\$ 619,800	8.9%
3	Design, struct/seismic		\$ 50,000	\$ 0	\$ 50,000	0.7%
4	Design, Other		\$ 0	\$ 0	\$ 0	0.0%
5	Proj Mgmt & admin		\$ 130,000	\$ 0	\$ 130,000	1.9%
6	SUBTOTAL	\$ 4,359,480	\$ 2,231,520	\$ 0	\$ 6,591,000	94.2%
7	Contingency		\$ 409,000	\$ 0	\$ 409,000	5.8%
8	TOTAL P.W.C	\$ 4,359,480	\$ 2,640,520	\$ 0	\$ 7,000,000	100%
9	Group 2 Equipment		\$ 0	\$ 458,000	\$ 458,000	
9.1	Flexible Gr 2 Equip		\$ 0	\$ 0	\$ 0	
10	TOTAL PROJECT	\$ 4,359,480	\$ 2,640,520	\$ 458,000	\$ 7,458,000	
Analytical Data		CIRM Funds	Match+Other Funds	Total		
Assignable square feet				5,420 ASF		
Gross square feet				8,180 OGSF		
Ratio (ASF Current / OGSF)				66.3% to 1.00		
PWC Cost Per ASF		\$ 804		\$ 487		
Equipment Cost Per OGSF		\$ 533		\$ 323		
Equipment Cost Per ASF						
Equipment Cost Per OGSF						

UC MERCED REVISION SUMMARY

Change Funds Ratio	CIRM	UCM
Change Funds Ratio	2.8%	
Change Funds (\$)	(\$609,450)	
Change in ASF		(1,065)
Change in OGSF		(1,285)
Change in Efficiency		-3%
Change in \$/ASF		\$8
Change in \$/OGSF		(\$33)
Change in ASF/PI		(153)

UC MERCED STEM CELL INSTRUMENTATION FOUNDRY - FEBRUARY 2009 REVISION
 Science and Engineering 1 - Proposal

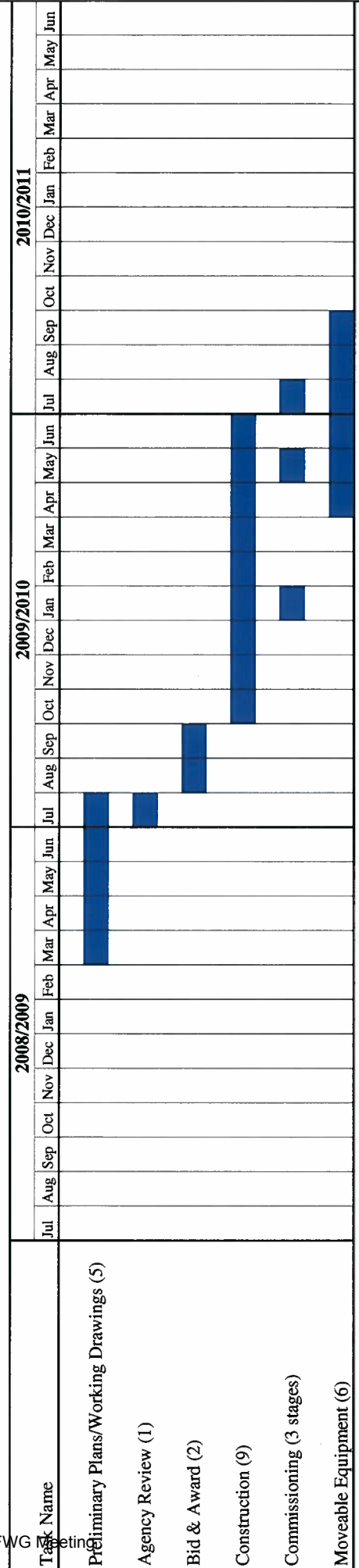
B - 2. AS PROPOSED BASED ON GRANT AWARD AMOUNT (Construction Estimated)

line	COSTS/FUNDING	CIRM	Matching	Other	Total	%
1	Construction	\$ 3,375,000	\$ 863,000	\$ 0	\$ 3,938,000	68.9%
2	Construction support	\$ 375,000	\$ 326,000	\$ 0	\$ 701,000	12.4%
3	Design, struct/seismic		\$ 380,000	\$ 0	\$ 380,000	6.9%
4	Design, Other		\$ 0	\$ 0	\$ 0	0.0%
5	Proj Mgmt & admin		\$ 203,000	\$ 0	\$ 203,000	3.6%
6	SUBTOTAL	\$ 3,750,000	\$ 1,502,000	\$ 0	\$ 5,252,000	92.8%
7	Contingency		\$ 410,000	\$ 0	\$ 410,000	7.2%
8	TOTAL P.W.C	\$ 3,750,000	\$ 1,912,000	\$ 0	\$ 5,662,000	100%
9	Group 2 Equipment		\$ 0	\$ 458,000	\$ 458,000	
9.1	Flexible Gr 2 Equip		\$ 0	\$ 0	\$ 0	
10	TOTAL PROJECT	\$ 3,750,000	\$ 1,912,000	\$ 458,000	\$ 6,120,000	
Analytical Data		CIRM Funds	Match+Other Funds	Total		
Assignable square feet				4,355 ASF		
Gross square feet				6,885 OGSF		
Ratio (ASF Current / OGSF)				63.3% to 1.00		
PWC Cost Per ASF		\$ 861		\$ 439		
Equipment Cost Per OGSF		\$ 545		\$ 278		
Equipment Cost Per ASF						
Equipment Cost Per OGSF						



PROJECT SCHEDULE
UNIVERSITY OF CALIFORNIA, MERCED
Project: CIRM/Stem Cell Instrumentation Foundry
Project Number: 904000

02/09/09 by Michael Chow, Project Director



Occupancy: Oct 2010

Cumulative
 Calendar
 Months (19)

DRAWDOWN SCHEDULE FOR RFA 07-03

UC Merced - Stem Cell Instrumentation Foundary

FA1-00614-1

Project Costs \$ 6,120,000
Spent to date \$ -
Amount to Draw \$ 6,120,000

To be spent: CIRM amount: \$ 3,750,000
 Institutional Amount \$ 2,370,000

DRAFT
 Estimated

Project Award Date

15-Mar-09

	percent draw	Monthly Draw	Cumulative Draw	Monthly CIRM Funds	Cumulative CIRM Funds	Monthly Institutional Matching Funds	Cumulative Institutional Funds
Spent to Date		\$ -	\$ -				\$ -
Mar-09	1%	\$ 61,200	\$ 61,200	\$ -	\$ -	\$ 61,200	\$ 61,200
Apr-09	1%	\$ 61,200	\$ 122,400	\$ -	\$ -	\$ 61,200	\$ 122,400
May-09	2%	\$ 122,400	\$ 244,800	\$ -	\$ -	\$ 122,400	\$ 244,800
Jun-09	3%	\$ 183,600	\$ 428,400	\$ -	\$ -	\$ 183,600	\$ 428,400
Jul-09	5%	\$ 306,000	\$ 734,400	\$ -	\$ -	\$ 306,000	\$ 734,400
Aug-09	6%	\$ 367,200	\$ 1,101,600	\$ -	\$ -	\$ 367,200	\$ 1,101,600
Sep-09	6%	\$ 367,200	\$ 1,468,800	\$ -	\$ -	\$ 367,200	\$ 1,468,800
Oct-09	6%	\$ 367,200	\$ 1,836,000	\$ -	\$ -	\$ 367,200	\$ 1,836,000
Nov-09	6%	\$ 367,200	\$ 2,203,200	\$ -	\$ -	\$ 367,200	\$ 2,203,200
Dec-09	9%	\$ 550,800	\$ 2,754,000	\$ 384,000	\$ 384,000	\$ 166,800	\$ 2,370,000
Jan-10	10%	\$ 612,000	\$ 3,366,000	\$ 612,000	\$ 996,000	\$ -	\$ 2,370,000
Feb-10	9%	\$ 550,800	\$ 3,916,800	\$ 550,800	\$ 1,546,800	\$ -	\$ 2,370,000
Mar-10	7%	\$ 428,400	\$ 4,345,200	\$ 428,400	\$ 1,975,200	\$ -	\$ 2,370,000
Apr-10	6%	\$ 367,200	\$ 4,712,400	\$ 367,200	\$ 2,342,400	\$ -	\$ 2,370,000
May-10	6%	\$ 367,200	\$ 5,079,600	\$ 367,200	\$ 2,709,600	\$ -	\$ 2,370,000
Jun-10	5%	\$ 306,000	\$ 5,385,600	\$ 306,000	\$ 3,015,600	\$ -	\$ 2,370,000
Jul-10	4%	\$ 244,800	\$ 5,630,400	\$ 244,800	\$ 3,260,400	\$ -	\$ 2,370,000
Aug-10	3%	\$ 183,600	\$ 5,814,000	\$ 183,600	\$ 3,444,000	\$ -	\$ 2,370,000
Sep-10	3%	\$ 183,600	\$ 5,997,600	\$ 183,600	\$ 3,627,600	\$ -	\$ 2,370,000
Oct-10	2%	\$ 122,400	\$ 6,120,000	\$ 122,400	\$ 3,750,000	\$ -	\$ 2,370,000
total to 100%	100%	\$ 6,120,000		\$ 3,750,000		\$ 2,370,000	

revise form as needed to accommodate schedule

CIRM UC MERCED SCIF AREA SUMMARY (DEDICATED SPACE)						
Room Type	Castle		Science & Engineering 1			
	ASF	GSF	ASF	GSF	Location	Notes
Research Space						
1 Clean Room Facilities						
A Clean Room - Class 1000 (non-certified)	1,700		550	154		
B Clean Room - Class 100	300		350	154		
C Clean Room Support	N/A		150	154		RM 4A-1
D Entry Vestibule/Changing Room	200		200	152		
Subtotal	2,200	3,660	1,250			
2 Specialized Facilities/Cell Imaging	600		400	153		2A,2B,2C
3 Cell Culture Rooms	300		250	153		3A,3B
4 Laboratory Support Space	600		300	153		4A-3
Subtotal	1,500	2,500	950			
Office Space						
5 Director and Staff Technical Offices	520		300	180, 182, 184		
6 Academic Offices	520		1,010	308, 310, 312, 314, 316, 324		
7 Conference Room	400		480	300		
8 Administrative Support	280		365	271A, 371A		
Subtotal	1,720	2,020	2,155			
TOTAL SPACE SUMMARY	5,420	8,180	4,355	6,885		
Castle Building 1200 SCIF Renovation			Science & Engineering 1 - SCIF Renovation		GSF	
			FIRST FLOOR		3,160	
			SECOND FLOOR		260	
			THIRD FLOOR		2,290	
			EQUIPMENT PENTHOUSE		1,175	
			TOTAL		6,885	
			ASF		4,355	
Project Efficiency (Did not count outdoor unenclosed equipment)			Efficiency without equipment penthouse		76%	
66%			Efficiency factor including equip penthouse		63%	

CIRM UC MERCED SCIF PROGRAM MAP (DEDICATED + SYNERGY SPACE)

Space Category	Castle		Science & Engineering 1				Notes
	ASF	GSF	ASF	GSF	Location		
1 Research Laboratory Space assigned to individual PIs	0		A		323, 325, 325A, 325B, 325C, 325D, 335, 335A, 335B, 335C, 335D, 335E, 335F, 343C		
2 Laboratory Support Space assigned to individual PIs	0						
3 SCIF Shared Laboratory Space	900				150, 152, 154	Room Type 1 from Area Summary	
4 SCIF Shared Laboratory Support Space	600				153A, 153B	Room Types 2, 3, 4 from Area Summary	
5 Core Laboratory Space	2,200		A		170	SEM	
6 Academic Offices (new assignments)	520				308, 310, 312, 314, 316, 324		
7 Academic Offices (existing assignments)	0		A		304, 320, 326, 328, 336, 338, 344, 370G	Offices assigned to the 8 Principal Investigators	
8 Director and Staff Technical Offices	520				180, 182, 184		
9 Conference Room	400				300		
10 Administrative/Conference Room Support	280					Admin support provided by Deans' Offices and Sponsored Projects	
Total	5,420	8,180			11,834	B	
Efficiency					76%		

A Indicates space within SE1 currently in use by the eight Principal Investigators. These spaces are not included on the in the formal summary data, but are shown here to indicate how the program maps between the Castle and Science and Engineering facilities (dedicated and synergy space).

B Excludes 1,175 GSF of Equipment Penthouse Space. The efficiency factor would be 63% including the equipment penthouse.



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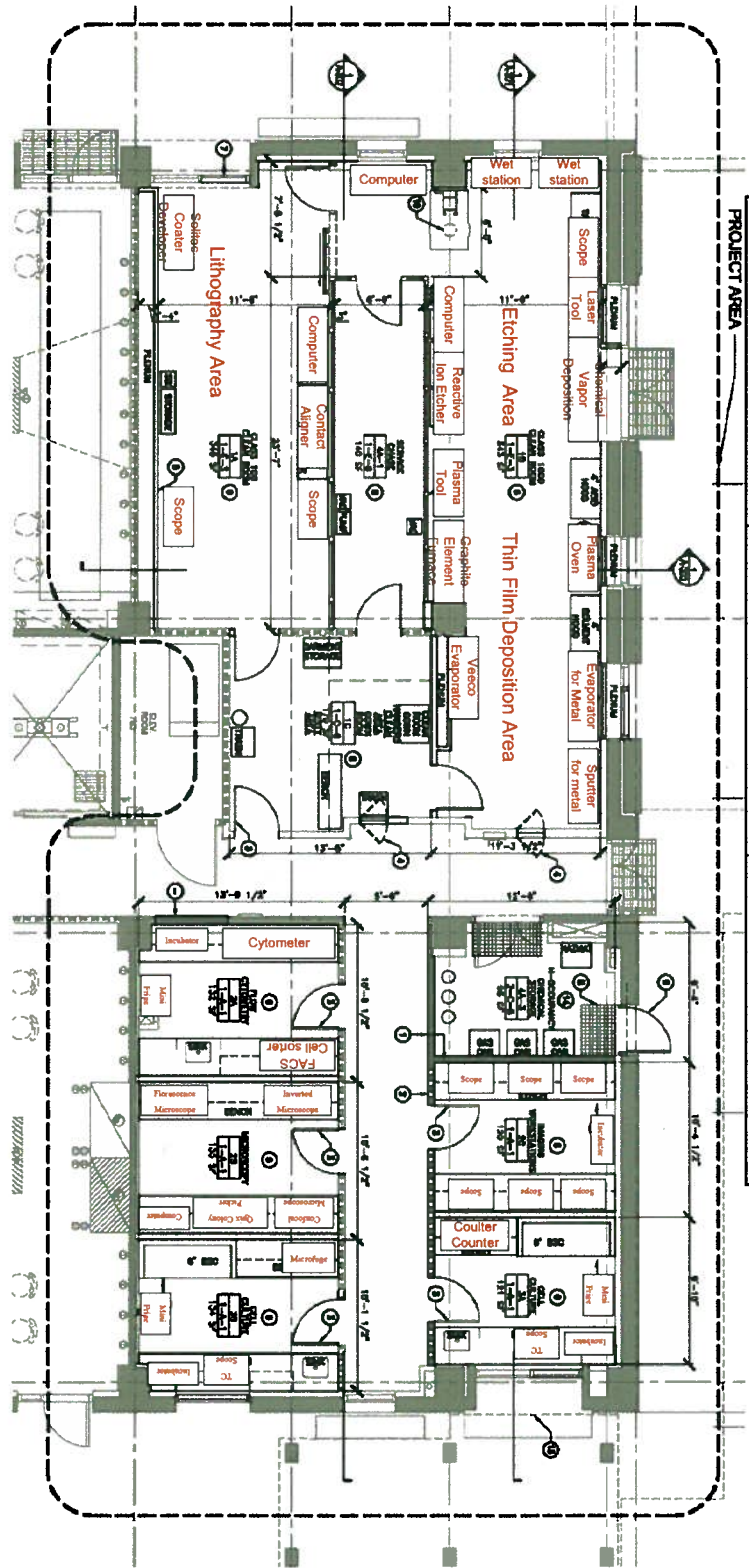
UC Merced
CIRM/Stem Cell Instrumentation Foundary (SCIF)

Project No. 904000

REVISED SPACE AREA COMPARISON:

Room Type	Previously-Submitted			Proposed SE-1 Renovation					
	ASF	No.	Tot. ASF	GSF	Room	ASF	Δ	GSF	Δ
Research Space									
1 Clean Room Facilities									
A Clean Room - Class 1000 (non-certified)	1,700	1	1,700	2,830	154	700			
B Clean Room - Class 100	300	1	300	500	154	350			
C Entry Vestibule/Changing Room	200	1	200	330	152	200			
Subtotal Clean Room Space			2,200	3,660		1,250	(950)		1,955
2 Specialized Facilities/Cell Imaging									
3 Cell Culture Rooms	600	1	600	1,000					
4 Laboratory Support Space	150	2	300	500					
5 Laboratory Support Space	600	1	600	1,000					
Subtotal Other Research Space			1,500	2,500	153	950	(550)		1,485
Office Space									
6 Director and Staff Technical Offices	130	4	520	610	180,182,184	300	(220)		
7 Academic Offices	130	4	520	610	308,310,312,314,324	1,010	490		
8 Conference Room	400	1	400	470	300	480	80		
9 Conference Room Support - A/V	80	1	80	90		0	(80)		
10 Administrative Support	200	1	200	240	271A, 371A	365	165		
Subtotal Admin Space			1,720	2,020		2,155	435		2,269
11 Mechanical Penthouse			N/A	N/A					1,175
TOTAL			5,420	8,180		4,355	(1,065)		6,885
Efficiency				66%					63%
Percent of Original Program						80%			84%



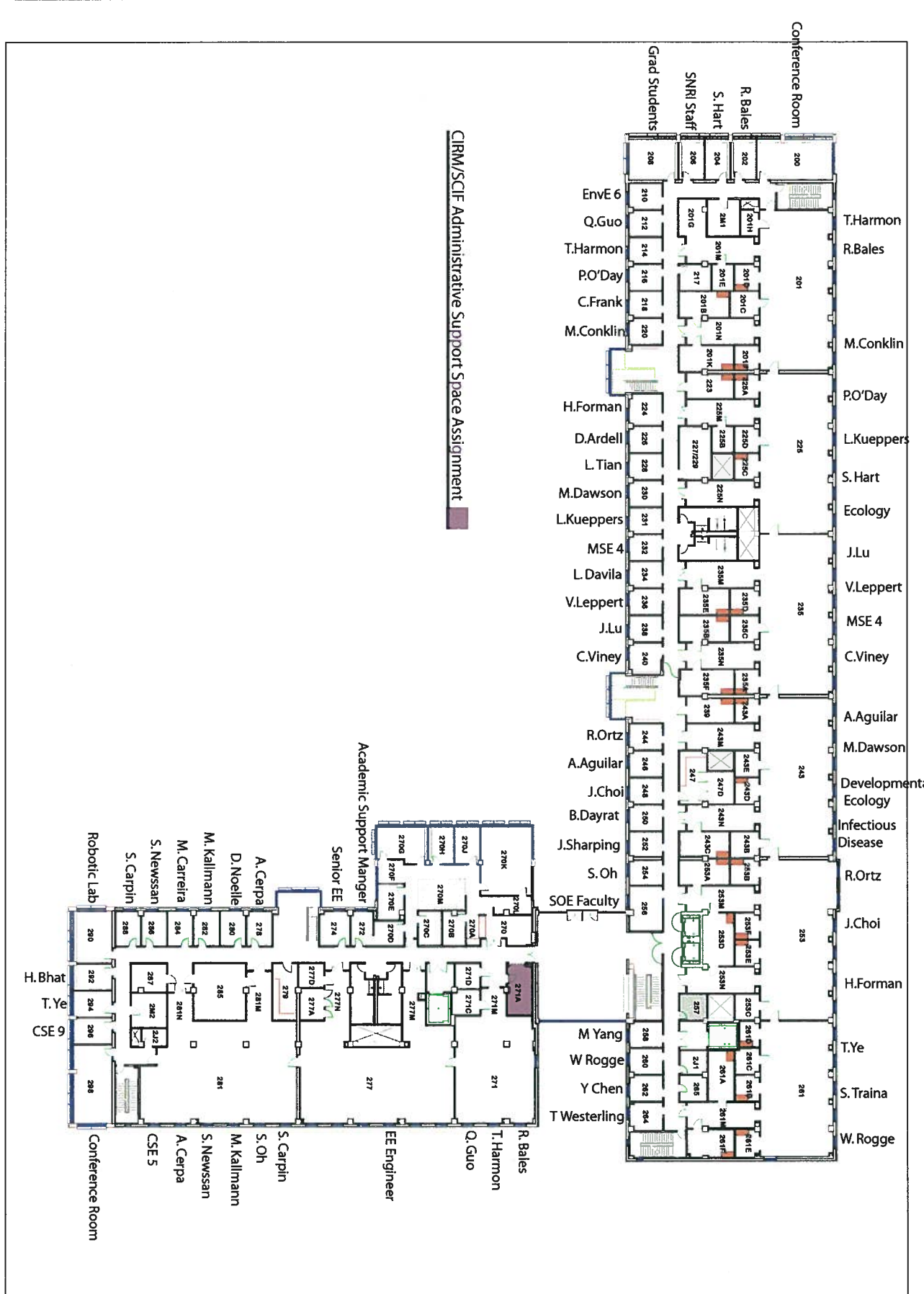


Science and Engineering 1			Scale	CIRM/SCIF Space Allocation
UC Merced	First Floor	Updated 02.06.09	Not To Scale	S. Rabedeaux, Academic Affairs



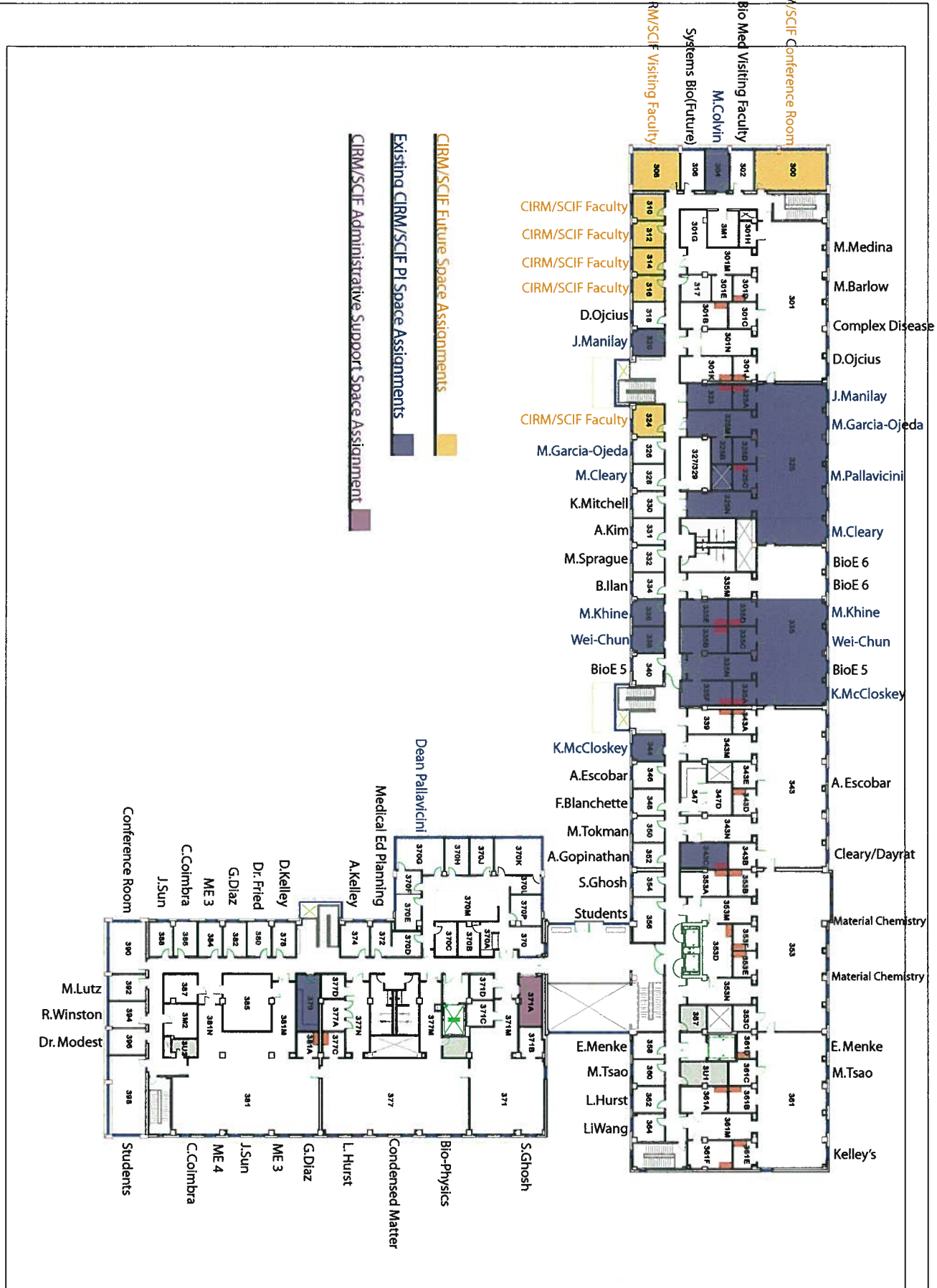
Science and Engineering 1			SCALE: Not To Scale	CIRM/SCIF Space Allocation
UC Merced	First Floor	Updated 02.06.09		S. Rabedeaux, Academic Affairs





Science and Engineering 1			SCALE: Not To Scale	CIRM/SCIF Space Allocation
UC Merced	Second Floor	Updated 02.06.09		S. Rabedeaux, Academic Affairs





- CIRM/SCIF Future Space Assignments
- Existing CIRM/SCIF PI Space Assignments
- CIRM/SCIF Administrative Support Space Assignment

Science and Engineering 1			SCALE: Not To Scale	CIRM/SCIF Space Allocation
UC Merced	Third Floor	Updated 02.06.09	S. Rabedeaux, Academic Affairs	



**CONCEPT
COST MODEL**

for

**Stem Cell Instrumentation Foundry
University of California Merced
Merced, CA**

January 23, 2009

DAVIS LANGDON

EXCLUSIONS

- Owner supplied and installed furniture, fixtures and equipment
- Loose furniture and equipment except as specifically identified
- Security equipment and devices
- Audio visual equipment
- Hazardous material handling, disposal and abatement
- Compression of schedule, premium or shift work, and restrictions on the contractor's working hours
- Design, testing, inspection or construction management fees
- Architectural and design fees
- Scope change and post contract contingencies
- Assessments, taxes, finance, legal and development charges
- Environmental impact mitigation
- Builder's risk, project wrap-up and other owner provided insurance program
- Land and easement acquisition
- Cost escalation beyond a start date of June 2009

COMPONENT SUMMARY

	Gross Area:	3,500 SF	
		\$/SF	\$x1,000
1. Foundations		0.00	0
2. Vertical Structure		0.00	0
3. Floor & Roof Structures		49.00	172
4. Exterior Cladding		10.57	37
5. Roofing, Waterproofing & Skylights		0.00	0
Shell (1-5)		59.57	209
6. Interior Partitions, Doors & Glazing		42.27	148
7. Floor, Wall & Ceiling Finishes		93.17	326
Interiors (6-7)		135.44	474
8. Function Equipment & Specialties		79.57	279
9. Stairs & Vertical Transportation		0.00	0
Equipment & Vertical Transportation (8-9)		79.57	279
10. Plumbing Systems		93.11	326
11. Heating, Ventilating & Air Conditioning		363.20	1,271
12. Electric Lighting, Power & Communications		141.48	495
13. Fire Protection Systems		14.29	50
Mechanical & Electrical (10-13)		612.08	2,142
Total Building Construction (1-13)		886.67	3,103
14. Site Preparation & Demolition		37.43	131
15. Site Paving, Structures & Landscaping		0.00	0
16. Utilities on Site		0.00	0
Total Site Construction (14-16)		37.43	131
TOTAL BUILDING & SITE (1-16)		924.10	3,234
General Conditions	7.00%	64.57	226
Contractor's Overhead & Profit or Fee	4.00%	39.43	138
PLANNED CONSTRUCTION COST		January 2009	1,028.10
Contingency for Development of Design	10.00%	102.86	360
Escalation to Start Date (June 2009)	0.00%	0.00	0
RECOMMENDED BUDGET		June 2009	1,130.95

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
3. Floor and Roof Structure				
Remove and replace slab	350	SF	40.00	14,000
Infill trench grates	100	SF	100.00	10,000
New beams at floor openings	150	LF	550.00	82,500
Localized shoring	1	LS	15,000.00	15,000
Structural system over cleanroom				<i>Not required</i>
Structural support for AHU	1	LS	50,000.00	50,000
				171,500
4. Exterior Cladding				
Doors				
New exit doors	1	EA	5,000.00	5,000
Storefront	400	SF	80.00	32,000
				37,000
6. Interior Partitions, Doors & Glazing				
Partitions				
New rated partitions	2,025	SF	22.00	44,550
Non rated partitions	900	SF	16.00	14,400
Doors				
Single	6	EA	3,000.00	18,000
Pair	1	EA	6,000.00	6,000
CR Doors	5	EA	8,000.00	40,000
Electric sliding door	1	EA	15,000.00	15,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Windows				
Pass through	2	EA	5,000.00	10,000
				147,950

7. Floor, Wall & Ceiling Finishes

Floors				
Welded sheet vinyl	2,000	SF	15.00	30,000
Epoxy resinous	100	SF	20.00	2,000
Patch	700	SF	2.00	1,400
Walls				
Cleanroom walls - storefront	1,000	SF	70.00	70,000
Cleanroom perimeter wall - metal panel	1,550	SF	50.00	77,500
Ceilings				
Layin ceiling with non washable panels	700	SF	6.00	4,200
Clean room ceilings	1,000	SF	100.00	100,000
Gypsum lid above cleanroom	1,000	SF	25.00	25,000
Gypsum board with epoxy paint	400	SF	15.00	6,000
Patch and paint existing	1	LS	10,000.00	10,000
				326,100

8. Function Equipment & Specialties

Lab equipment				
Base and wall casework	150	LF	750.00	112,500
Sinks	3	EA	2,000.00	6,000
BSC	2	EA	12,000.00	24,000
Hoods	3	EA	9,000.00	27,000
Other built in equipment	2,000	SF	25.00	50,000
Clean room tools installation	4	EA	10,000.00	40,000
Grate	20	SF	200.00	4,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Miscellaneous building specialties	3,000	SF	5.00	15,000
				278,500

9. Stairs & Vertical Transportation

				0
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10. Plumbing Systems

Institutional fixtures (installation only) and connection piping Including cup and laboratory sinks, emergency eyewash/showers	1	LS	15,000.00	15,000
Sanitary waste, vent and service piping				<i>Not required</i>
Water treatment, storage and circulation				<i>Not required</i>
Cleanroom service equipment				<i>Not required</i>
Laboratory and industrial service pipework systems Laboratory outlet fittings - installation and hook-up only	1	LS	20,000.00	20,000
New lab services pipework, process utilities, routed to lab equipment, includes lab air, vacuum, compressed air, RO, RO return, natural gas, cold water, hot water, industrial cold water, industrial hot water/return, process cooling water supply/return	3,500	SF	40.00	140,000
Acid and solvent waste Acid wastes, vents, UG, duriron, < = 3" (allow)	100	LF	135.00	13,500
Acid wastes, vents, AG, FRPP, < = 3"(allow)	200	LF	97.00	19,400
Roof drainage systems				
Natural gas - including pipework, fittings and equipment valves	1	LS	15,500.00	15,500

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Testing and sterilization and certification	180	HR	125.00	22,500
Trade demolition	1	LS	30,000.00	30,000
Relocation of existing piperack	1	LS	50,000.00	50,000
				325,900

11. Heating, Ventilation & Air Conditioning

Heat generation and chilling

Chilling

Standby Air-cooled chiller				NIC
Chemical water treatment	1	LS	15,000.00	15,000

Circulation pumps and specialties

Expansion tanks	1	EA	3,200.00	3,200
Air separators	1	EA	2,750.00	2,750

Piping, fittings, valves and insulation

Including chilled, heating hot water, process cooling pipework, fittings, equipment hook-ups, valves specialties and insulation	3,500	SF	35.00	122,500
Valves and specialties	1	LS	15,500.00	15,500

Air handling equipment

Air handling unit, supply fan, return fan, filtered,
 cooling and heating, copper, double wall construction,
 stainless steel interior, variable speed, premium
 efficiency motors

Cleanroom	9,600	CFM	15.50	148,800
Fan coil unit, chill water	1	EA	2,000.00	2,000
Humidification - 9,600 cfm (electric)	1	EA	18,000.00	18,000
Fan filter units (1/3 hp)				
48" x 24"	48	EA	4,000.00	192,000
24" x 24"	10	EA	2,000.00	20,000
Coil modules	7	EA	1,250.00	8,750

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Air distribution and return				
Galvanized steel ductwork	7,750	LB	12.00	93,000
Acid and solvent exhaust ductwork, teflon coated stainless steel	2,500	LB	32.00	80,000
Fire-rated exhaust duct	1,500	LB	30.00	45,000
Intake louver	1	LS	3,500.00	3,500
Exhaust louver, stainless steel	1	LS	5,000.00	5,000
Flexible ductwork	300	LF	22.00	6,600
Volume dampers	35	EA	87.50	3,063
Dampers, fire/smoke	1	LS	15,000.00	15,000
Duct insulation	4,650	SF	3.50	16,275
Diffusers, registers and grilles				
Diffusers, registers and grilles	3,500	SF	2.50	8,750
Controls and instrumentation				
Building management control points	115	Pts	2,000.00	230,000
Phoenix supply and exhaust valves	14	EA	4,500.00	63,000
Unit ventilation				
Exhaust fans, variable speed, (2 Ea), integral stacks	3,000	cfm	4.50	13,500
Sound attenuation	3,000	cfm	0.50	1,500
H-room (explosion-proof)	1	EA	3,500.00	3,500
Testing and balancing	320	HR	125.00	40,000
Test and commission including clean room certificate	1	LS	75,000.00	75,000
Trade demolition	1	LS	20,000.00	20,000
				1,271,188

12. Electrical Lighting, Power & Communication

Mains power and distribution
No work anticipated

Emergency power

New circuit breaker in (E) emergency distribution panel, 480V/3	175	AM	20.00	3,500
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<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Transformers, 480-120/208 V, k-rated	112.50	kVA	102.00	11,475
Emergency distribution panel, 208 V	400	AM	57.00	22,800
Feeder conduit and cable	250	LF	125.00	31,250
Machine and equipment power				
Connections and switches including feeder conduit and wire				
Airhandling unit supply fan, 15 hp				<i>Deleted</i>
Fancoil unit, 10 hp	1	EA	2,000.00	2,000
Exhaust fans, < = 5hp	3	EA	1,500.00	4,500
Exhaust fans, 1/2 hp	1	EA	750.00	750
Fan powered Hepa units, 115V/1, 7.2A	58	EA	750.00	43,500
Fire smoke damper connections, allow	1	LS	5,000.00	5,000
Miscellaneous power re: specialty equipment, power hardware, vav boxes, lab hoods < 100 A	1	LS	18,000.00	18,000
User convenience power				
Panelboard breakers, 120 V	126	EA	98.00	12,348
Feeder conduit and cable	250	LF	40.00	10,000
Wiremold/receptacles, including conduit and cable				
Duplex - wall	13	EA	305.00	3,965
Duplex - relocated	7	EA	278.00	1,946
Wiremold/ surface raceway, 2 channel, aluminum, including conduit and cable	350	LF	60.00	21,000
Duplex - surface raceway	153	EA	140.00	21,420
Lighting				
Light fixtures, switches, including conduit and cables				
F1 - tear drop fixture 4' long x 2" x 6" D, clear extruded prismatic acrylic lens, gasketed, certified for wet location, electronic ballast, 1-lamp	18	EA	900.00	16,200
F2 - 2' x 4' recessed clean room fluorescent fixture, stainless steel housing, door frame, #12 high impact acrylic lens, triple gasketed, A,B switching and 2 ballasts	33	EA	1,500.00	49,500
F2a - SIMILAR to type "F2" except 2' x 2'	2	EA	1,500.00	3,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
F4 - 1' x 4' ceiling mounted clean room fluorescent fixture, stainless steel housing, door frame, #12 high impact acrylic lens, single piece closed cell extruded gasketed lens, certified for wet location, electronic ballasts	3	EA	1,200.00	3,600
XP - existing luminaire	1	EA	500.00	500
E1 - edge lite LED exit sign, universal mount, with white housing, green stencil lettering, integral battery pack for 1.5 hours of operation	4	EA	650.00	2,600
E1,xp - same as type E1 except explosion proof	1	EA	900.00	900
Support room - 2' x4' fluorescent fixture	4	EA	550.00	2,200
Switches	21	EA	300.00	6,300
Occupancy sensors	2	EA	400.00	800
Lighting and power specialties				
Grounding	1	LS	5,000.00	5,000
Lighting control , including relay panels	1	LS	10,000.00	10,000
Combustible gas (LEL) monitoring & detection - gas cabinets with dilution fans, VFDs	1	LS	20,000.00	20,000
Reconnect/complete (E) branch circuits affected by renovation as required	3,295	SF	3.50	11,533
Telephone and communications				
Telephone/data outlets, including conduit & cable				
Teledata outlet - surface raceway	35	EA	650.00	22,750
Teledata outlet - wall	8	EA	700.00	5,600
Remove, relocate (E) teledata outlet	4	EA	700.00	2,800
Modifications at IDF Room as required	1	LS	5,500.00	5,500
Alarm and security				
Fire alarm system				
Fire alarm initiating devices including conduit and cables				
Smoke detector	12	EA	700.00	8,400
Smoke detector - xp	1	EA	1,200.00	1,200
Speaker/ strobe	9	EA	675.00	6,075
Speaker/ strobe - xp	1	EA	1,200.00	1,200
Fire alarm/ firesmoke damper connections	4	EA	600.00	2,400

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
Remove, relocate (E) smoke detectors	6	EA	700.00	4,200
Remove, relocate (E) speaker/ strobe	4	EA	700.00	2,800
Connection to main system	1	LS	5,000.00	5,000
Security - including , motion sensors, glass beak, door position switch, (3) CCTV cameras and interface with firealarm system	1	LS	25,000.00	25,000
Cut and patch as required	1	LS	25,000.00	25,000
Testing	120	Hrs	125.00	15,000
Selective trade demolition Including conduit and cables				
Fire damper connection	2	EA	110.00	220
Projection screen connection	2	EA	150.00	300
Fan coil unit	1	EA	200.00	200
(E) receptacles - wall, clg, floor	33	EA	110.00	3,630
(E) power pole	4	EA	150.00	600
(E) light fixtures	48	EA	110.00	5,280
(E) occupancy sensors 7 switches	8	EA	110.00	880
Remove (E) cable tray	120	LF	4.00	480
Remove (E) teledata outlets	10	EA	115.00	1,150
(E) fire alarm initiating devices	9	EA	115.00	1,035
Disconnect and remove fire smoke damper connections	12	EA	115.00	1,380
Remove pushbutton	2	EA	115.00	230
Remove card reader/ key pad	4	EA	125.00	500
Conduit sleeves, and stub out	4	EA	200.00	800
				495,197

13. Fire Protection Systems

Modify existing sprinkler heads	1	LS	40,000.00	40,000
Relocate existing fire main	1	LS	10,000.00	10,000
				50,000

<i>Item Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Rate</i>	<i>Total</i>
14. Site Preparation & Building Demolition				
Selective demolition	3,000	SF	25.00	75,000
Demolition for shafts	3	EA	12,000.00	36,000
Access for new AHU	1	LS	20,000.00	20,000
				<hr/>
				131,000
 15. Site Paving, Structures & Landscaping				
				<hr/>
				0
 16. Utilities on Site				
				<hr/>
				0

CIRM – SCIF Site Visit

March 6, 2009 (*Draft as of: 2/9/2009 5:06 PM*)

CIRM Participants:

- John Robson, VP Operations, CIRM
- Marie Csete, Chief Science Officer, CIRM
- Ray Groom, CIRM Facilities Consultant

UC Participants:

- Keith Alley, Provost and Executive Vice Chancellor (Welcome)
- Samuel Traina, Vice Chancellor - Research
- Maria Pallavicini, Dean – Natural Sciences
- Jeff Wright, Dean – Engineering
- Thomas Lollini, Assoc. Vice Chancellor – PPD&C/Campus Architect
- Michael Chow, Sr. Project Director – PPD&C
- Thea Vicari, Director – Sponsored Projects Office
- John O. White, Director – Capital Planning & Space Management

CIRM Guests arrive 10:00 a.m.

Reserved Parking: Location: Kolligian Library Parking Lot
(Suggest that visitors arrive 9:45 a.m. to allow walking time to Science and Engineering Building across the Quad).
See Campus Map: <http://www.ucmerced.edu/maps/>

Campus Contacts:

Jason Martin (209) 228-4414
Campus Operator: (209) 228-4400
John O. White (209) 658-4454 cell or (209) 228-4454 desk

SCHEDULE

- 10:00 – 10:15 a.m. Welcome and Overview (SE 370)
- Keith Alley, Provost and Executive Vice Chancellor
 - Thomas Lollini, Assoc. Vice Chancellor – PPD&C
 - Sam Traina, Vice Chancellor - Research
 - Maria Pallavicini, Dean – Natural Sciences
 - Jeff Wright, Dean – Engineering
- 10:15 – 11:00 a.m. SCIF Proposal Discussion (SE 370) – *See Participants List Above*
- 11:00 – 12 Noon Tour Facilities and Continue Discussions (Leave from SE 370)
- 12:00 – 1:00 p.m. Working Lunch with Deans/Principal Investigators (SE 270)
(Arrangements by Office of the Dean – Natural Sciences)
- 1:00 – 2:00 p.m. Other CIRM Research Issues/Wrap Up/Next Steps (SE 370)

Facilities Tours Contacts:

De Acker (Nat. Sci.); German Gavilan (Engineering); Steve Rabedeaux (Academic Affairs)

Send comments on draft Agenda to jwhite@ucmerced.edu