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April 3, 2009

**ACTION UNDER PRESIDENT'S AUTHORITY – AMENDMENT OF THE BUDGET
FOR CAPITAL IMPROVEMENTS AND THE CAPITAL IMPROVEMENT PROGRAM,
CALIFORNIA NATIONAL PRIMATE RESEARCH CENTER VIROLOGY AND
IMMUNOLOGY LABORATORY BUILDING, DAVIS CAMPUS**

It is recommended that:

Pursuant to Standing Order 100.4(q)

- (1) The President amend the 2008-09 Budget for Capital Improvements and the Capital Improvement Program to include the following project:

From: Davis: California National Primate Research Center Virology and Immunology Laboratory Building - preliminary plans, working drawings, and construction - \$5,662,000 to be funded from Federal funds (\$3,800,000) and campus funds (\$1,862,000).

To: Davis: California National Primate Research Center Virology and Immunology Laboratory Building - preliminary plans, working drawings, and construction - \$8,087,000 to be funded from Federal funds (\$3,800,000) and campus funds (\$4,287,000).

Budget for Capital Improvements and
 Capital Improvement Program
 Scheduled for
 Regents' Allocation, Loans, Income Reserves, University Registration Fee Reserves,
 Gift Funds, and Miscellaneous Funds

Campus and Project Title (Total Cost)	<u>Prior</u> <u>Approval</u>	Proposed <u>2008-09</u>
<u>Davis</u>		
California National Primate Research Center Virology and Immunology Laboratory Building	P \$327,000 Federal funds W \$386,000 Federal funds C \$3,087,000 Federal funds C \$1,862,000 Campus funds	C \$2,425,000 Campus funds
(\$8,087,000)		

DESCRIPTION

The Davis campus requests approval of a \$2,425,000 augmentation from campus funds for the California National Primate Research Center (CNPRC) Virology and Immunology Laboratory Building project. The total project cost would be \$8,087,000 funded from Federal funds (\$3,800,000) and campus funds (\$4,287,000).

In May 2007, the Vice President for Budget approved the project at a total project cost of \$5,662,000 funded from Federal funds (\$3,800,000) and campus funds (\$1,862,000). In January 2009, the project went out to bid which resulted in bids that exceeded the pre-bid construction cost estimate, and further analysis revealed actual costs to deliver a project of this complexity requires additional staff time.

Background

The California National Primate Research Center is one of the eight National Primate Research Centers supported by the National Center for Research Resources of the National Institutes of Health (NIH). The Virology and Immunology Laboratory Building (VIL) would bring dispersed researchers together in high quality research space that meets the containments standards for work with infectious viruses. At present, there are significant deficiencies in the virology & immunology (V&I) research space on campus. The V&I scientists need appropriate bio-safety level 2 (BSL-2) and 3 (BSL-3) containment facilities to investigate diseases they are unable to study safely in existing facilities. The proposed BSL-2 and BSL-3 laboratories will improve process efficiencies and increase work safety for graduate students, faculty, and staff. High containment research activities from the general CNPRC laboratory building also will be isolated, thereby reducing the possibility of inadvertent exposure to the pathogens under study in the V&I unit. The new laboratory facility expands the existing V&I unit and integrates NIH funded research and teaching efforts with HIV/AIDS, measles and Centers for Disease

Control/National Institute of Allergy and Infectious Diseases categorical pathogens, and influenza A.

Project Description

The CNPRC VIL will be located within the California National Primate Research Center with two major goals: 1) to conduct a research program focused on selected areas relevant to human health for which the nonhuman primate is the appropriate model; and 2) to provide a major research support program (Primate Services) composed of teams of specialists responsible for delivering high quality animal care, ensuring humane treatment, and providing a healthy, stable source of nonhuman primates.

The VIL of 4,022 asf (5,461 gsf) will be designed and built in accordance with NIH laboratory design guidelines and in conformance with UC Davis Architectural Guidelines for Bio-safety Laboratories. The building will be a one-story facility with an interstitial space above the BSL-2 and BSL-3 laboratories and laboratory support space to allow servicing the mechanical, electrical, and telecommunications systems without entering the laboratory area. The entire assignable square feet in the project are laboratory and laboratory support facilities.

Construction is anticipated to begin in April 2009 upon approval, with completion by May 2010.

Need for Augmentation

The project completed the bid phase on January 28, 2009. Although the bidding was highly competitive (21 bidders), the post-bid outcome resulted in a total project cost of \$8,087,000 and the need for an augmentation of \$2,425,000 to award the bid and implement the project.

Construction Costs of \$2,198,000

The project cost increase is due to a number of factors: the construction industry has experienced significant escalation since the Federal grant proposal was submitted in 2003; the BSL-3 mechanical systems for a relatively small building are highly complex; and BSL-3 design standards have continued to evolve. The campus had difficulties with project cost estimates from the 50-percent working drawings phase to the time of bid. There were significant differences among the estimates from the design team, professional estimating firms, and campus estimators. Because of time constraints attached to the NIH funds, there was added pressure to bid the project and start construction as soon as possible.

Other Costs of \$229,000

During the recent post bid reconciliation, deeper analysis revealed the actual costs to date and future costs to deliver a complex BSL3 lab building and expend NIH funds quickly required more project management and inspection time to be successful. During the reconciliation process, additional senior staff and professional estimators were involved in reviewing the budget and schedule.

Policy on Sustainable Practices

This project will comply with the *University of California Policy on Sustainable Practices*. As required by this policy, the project will adopt the principles of energy efficiency and sustainability to the fullest extent possible, consistent with budgetary constraints and regulatory and programmatic requirements.

The project will be designed to achieve the UC equivalent of LEED Silver Certification. Sustainable measures include optimizing energy performance, utilizing enhanced commissioning, an indoor air quality management plan, a construction waste management plan, and incorporating materials with recycled content into the project. In accordance with University policy, the design of the VIL has been reviewed by an independent design consultant and value engineering team. UC Davis Architects & Engineers Department will manage the project with assistance from the executive design professional's project team and testing agencies as required. The Campus Architect's office will perform project oversight.

CEQA Classification

The Virology and Immunology Laboratory Building was evaluated in the UC Davis CNPRC 2007 Research Laboratory Project Environmental Impact Report (State Clearinghouse No. 2006102076). The EIR was certified in 2007 in accordance with the requirements of the California Environmental Quality Act (CEQA) and CEQA findings were adopted with the design approval of the Virology and Immunology Laboratory in 2007. Implementation of the proposed project will include all applicable mitigation measures. No further environmental review is required.

Financial Feasibility

The total project of \$8,087,000 would be funded from Federal funds (\$3,800,000) and campus funds (\$4,287,000).

Approved by:

 4-6-09
Mark G. Yudof Date
President of the University

PROJECT STATISTICS
CALIFORNIA NATIONAL PRIMATE RESEARCH CENTER VIROLOGY AND
IMMUNOLOGY LABORATORY BUILDING
CAPITAL IMPROVEMENT BUDGET
DAVIS CAMPUS
CCCI 5604

<u>Cost Category</u>	<u>Proposed</u>	<u>% of Total</u>
Site Clearance	\$ 45,000	.6%
Building	6,294,000	77.8%
Exterior Utilities	105,000	1.3%
Site Development		
A&E Fees	395,000	4.9%
Campus Administration	557,000	6.9%
Surveys, Tests, Plans	104,000	1.3%
Special Items *	265,000	3.3%
Contingency	322,000	4.0%
Total P-W-C	<u>\$8,087,000</u>	100.0%
Group 2 & 3 Equipment		
Total Project Cost	<u>\$8,087,000</u>	

Statistics

Gross Square Feet (GSF) **	5,461
Assignable Square Feet (ASF) **	4,022
Ratio ASF/GSF (%)	74%
Building Cost /GSF	\$1,153

* Special items include DPP, independent structural, special consultants lab planning, air quality credits, EIR services, value engineering, constructability reviews, agency review, and Capital Asset Accounting, totaling \$265,000.

** Gross square feet (GSF) is the total area, including usable area, stairways, and space occupied by the structure itself. Assignable square feet (ASF) are the net usable area.