

**ACADEMIC COUNCIL SPECIAL COMMITTEE ON LAB ISSUES
ANNUAL REPORT 2009-2010**

TO THE ASSEMBLY OF THE ACADEMIC SENATE:

The Academic Council Special Committee on Lab Issues (ACSCOLI) was established by the Academic Council at its April 25, 2007, to replace the Academic Council Special Committee on National Labs (ACSCONL). ACSCOLI's term unless, changed by the Academic Council will be in effect from July 1, 2007 through May 2013. ACSCOLI's primary charge is to provide regular and broadly-based Senate oversight of UC's relationship with Los Alamos National Laboratory (LANL), Lawrence Berkeley National Lab (LBNL), and Lawrence Livermore National Laboratory (LLNL). Specifically, the charge of ACSOLI is as follows:

1. Consult with the Administration regarding the management of the DOE Labs, the decision about whether to compete to continue managing the laboratories, and the circumstances surrounding any possible bid;
2. Report to the Academic Council on the relationship between the DOE Labs and UC, including but not limited to: the advantages of UC management to the laboratories and to the US, the advantages to UC of managing the DOE Labs, the total cost to UC of managing the Labs, the consistency of the missions of the Laboratories and UC, the cost and conditions regarding any UC bid to retain management;
3. Advise the Academic Council about the best timing and form of Senate input, both at a systemwide and campus level, regarding the advisability of UC competing to retain management of the Labs.

For the 2009-10 year, ACSCOLI held four face-to-face meetings and one conference call.

Plutonium Pits Production

As a follow-up to the Academic Assembly's 2008 Resolution on Plutonium Pits, ACSCOLI continued to monitor the Labs manufacture of Plutonium Pits. For the record, in his October 13, 2009 letter, President Yudof related to Academic Council Chair Harry Powell that LANL delivered four pits in FY 2009 (October 1, 2008 to September 30, 2009); LLNL does not produce any plutonium pits.¹ This brings the total of pits produced over a three-year period (FY 2007 to FY 2009) to 21.

Visits to the National Labs

ACSCOLI held two of its meetings at local National Labs this year--LLNL in December 2009 and LBNL in July 2010. Both meetings highlighted the scientific work and achievements at each of these Labs, as well as the value-added that they bring to the University.

Commission on the Future Recommendations: Research Strategies

ACSCOLI reviewed and endorsed recommendations 2 & 3 from the Research

¹ For more information, see the enclosed October 13, 2009 Letter from UC President Mark Yudof to Academic Council Chair Harry Powell.

Strategies Working Group with the following caveats: 1) Prioritizing internal funds to support research “where extramural funding options are limited” would direct UC research funds away from those activities for which extramural funds exist; and 2) the relationship of these recommendations and any associated “Grand Challenges” initiative to the newly established Multicampus Research Programs and Initiatives (MRPIs) must be clarified. Overall, ACSCOLI agreed with the Research Strategies Work Group that the three National Labs are particularly well-equipped to address the “Grand Challenges” envisioned in the COTF recommendations; however, the committee recognizes that funding remains a key problem.

UC Faculty/Lab Collaborations Task Force

ACSCOLI convened a UC Faculty/Lab Collaborations Task Force that held one conference call in spring 2010. The focus of this task force centered on research centers and institutes, areas of likely collaboration, and joint faculty appointments. ACSCOLI will continue to focus its efforts on enhancing collaborations and formal relationships between UC faculty and Laboratory scientists.

Reserve Lab Fees

In July 2010, ACSCOLI commented on the best allocation of \$1M reserve for research awards from the DOE laboratory management contracts; this is separate from the \$1.5M fee contingency. ACSCOLI recommended the following priorities in allocating these funds: 1) Hold the reserve over for the next call of the Lab Fee competition, which would include a small grants program; 2) if option 1 is not feasible, make a call for a small grants competition sooner, which would include grant workshops; or 3) use the reserve as one-time funding for GSHIPs (Graduate Students Health Insurance Plans). Upon consultation among ACSCOLI Chair Simmons, Vice President Beckwith, Executive Director Croughan, and Lab Programs Consultant Birely, it was decided to adopt option #1.

National Policy Issues

Over the course of the year, ACSCOLI followed a number of policy issues of national import, which included:

- *Comprehensive Nuclear Test Ban Treaty*: This treaty was signed by President Clinton, but it has not been ratified by Congress (it actually sits with the Foreign Relations Committee in the Senate).
- *JASONS Report*: This report concludes that nuclear weapon lifetimes can be extended for a long time by solely using R1, or “refurbishment” (cloning the weapon while updating the components); other forms of re-use are R2, “re-use”, R3 “remanufacture”.
- *NAS Study of the Nuclear Security Laboratories*: The National Defense Authorization Act calls for an examination by the National Academy of Sciences on the costs associated with the new contracts for LANL and LLNL. The U.S. Senate expanded this study to include the management and operation of all of the national weapons labs, and the final legislation places the focus on the maintenance of quality at the Labs. In brief, the study will look at five specific aspects of the Labs: 1) the

quality of scientific research; 2) the quality of engineering work; 3) the criteria of conclusions; 4) any relationship(s) between the current quality of the Labs and the contracts; and 5) the Labs' relationship(s) with other national agencies. To date, this study has not been completed.

- *Nuclear Posture Review (NPR)*: This is the periodic assessment of U.S. nuclear weapons policy and plans for the nuclear deterrent including the stockpile. .
- *Five-Year Review Conference on the Nuclear Nonproliferation Treaty*: In addition to START, the US declassified the total number of nuclear weapons (5,113 warheads as of September 2009). The US has also dropped its nuclear stockpile by 84% since the end of the Cold War. With respect to non-strategic weapons; the US has reduced these by 90% between 1991 and 2001.
- *President Obama's Nuclear Security Summit Conference*: This May 2010 conference culminated in a non-binding communiqué that commits 47 states to do their best to round up fissile material and come back in four years.
- *START Treaty*: Although this treaty was signed by the heads of state (Russia/US) and commits the US to deep reductions in nuclear delivery vehicles, it will need to be ratified by Congress.

Laboratory Management Issues

ACSCOLI also continued to monitor, and seek improvement (where necessary) to the following laboratory management issues:

- *Morale at the Labs*: ACSCOLI remains concerned about ongoing morale issues at all of the Labs; these concerns centered on procurement/safety restrictions, as well as recruitment and retention of talented junior and senior Lab personnel.
- *LLNL/Sandia CA Open Campus Proposal*: LLNL and Sandia National Lab are moving forward on an initiative for an open campus site to foster academic and private sector collaborations for non-classified research and work. This space will be physically separate from the security areas of both Sandia and LLNL (“outside the fence”), and will incorporate the Combustion Research Facility at Sandia and the Hertz Hall at LLNL. The initiative anticipates some new construction for open high performance computing, transportation research, and biological research; it is envisioned that some of the activities will center on high-energy physics and NIF users. Although the proposed use of Hertz Hall did raise issues involving the existing lease of that facility by UCD, it was reported at the July 2010 meeting that this issue has been largely resolved.

Membership

In July 2010, Academic Council reappointed Michael Colvin (UCM), Eugene Haller (UCB), and Clare Yu (UCI) for another three-year term

Presentations

In the 2009-10 year, ACSCOLI members heard a number of Lab-related presentations on Lab management, national policy, and scientific work, which included the following: Overviews of LANL, LBNL, and LLNL, Actinide Research, Plutonium Processing and Pit Fabrication at LANL, Modification of the LANL's Personnel System, Structure of the

Laboratory Management Office, LBNL's E-Buy System, UC/LLNL Partnership and Collaboration, Climate Change, BELLA (at LBNL), UV Waterworks/Darfur Stove (at LBNL), Bio-fuels and Artemisinin (JBEI), and Cancer Research (at LBNL).

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Respectfully submitted,

Dan L. Simmons, Chair (Council Vice Chair)

Henry Powell (Council Chair)

Mary Croughan (Past Council Chair)

Clare Yu (UCI)

Michael Todd (UCSD)

Michael Colvin (UCM)

Eugene Haller (UCB)

Harry Tom (UCR)

Bob Powell (UCD)

Greg Miller (UCORP Chair/UCD)

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