

ACADEMIC COUNCIL SPECIAL COMMITTEE ON LAB ISSUES ANNUAL REPORT 2017-18

TO THE MEMBERS OF THE ACADEMIC COUNCIL:

The Academic Council Special Committee on Lab Issues (ACSCOLI) was established by the Academic Council to provide broad-based Senate oversight of UC's relationship with the National Laboratories – Los Alamos National Laboratory (LANL), Lawrence Livermore National Laboratory (LLNL), and Lawrence Berkeley National Laboratory (LBNL, also called the Berkeley Lab). ACSCOLI advises the President and Regents on general policies relating to the National Laboratories, which includes the dispersal of UC's share of net fee monies, policies that affect the lab science management, and the quality of science being performed at the labs. ACSCOLI is also concerned with evaluating the benefits of UC's continued participation in the management of the labs, and has been charged by the Academic Council with stimulating closer connections between the labs, faculty, and students.

ACSCOLI met four times in Oakland during 2017-18 academic year (AY).

National Labs Overview

UC is the prime contractor for the management and operation of Lawrence Berkeley National Laboratory (LBNL). The University is also a partner in the Lawrence Livermore National Security, LLC (LLNS) that manages Lawrence Livermore National Laboratory (LLNL), and a partner in Los Alamos National Security, LLC (LANS), which manages Los Alamos National Laboratory (LANL). LLNS and LANS are overseen by the National Nuclear Security Administration (NNSA), an agency within the U.S. Department of Energy.

Los Alamos National Laboratory Contract

ACSCOLI received regular updates from Kim Budil, UC's Vice President for National Laboratories, about UC's preparation for bidding for the Los Alamos National Laboratory management contract. The contract was scheduled to expire in 2018 and the UC Office of National Laboratories spent much of the year pulling together a high quality management team and bid proposal. The new contract is for five years, with an additional five years possible. The main criteria for the bid are: past performance, key personnel, and small business participation. VP Budil noted that the RFP includes a section on "intellectual and scientific freedom," which aligns well with the university's mission.

ACSCOLI Chair Michael Todd and member Jeff Richman worked with VP Kim Budil on an announcement of UC's intent to bid for the contract that was read at the November 29th Academic Council meeting. The written statement was sent to Division chairs to disseminate to faculty via campus communication channels. Just days before ACSCOLI's last meeting, the NNSA announced that UC's team, Triad National Security, had been awarded the contract.

White Paper from Office of the National Laboratories

In the 2016-2017 AY, UCORP (chaired by Jeff Richman) and ACSCOLI requested a white paper from VP Kim Budil's office intended to cover NNSA lab history, service to the nation,

evolution of UC's role in managing the labs, and the benefits of the relationship. The primary intended audience for the paper is UC faculty, many of whom are unfamiliar with the work of the labs and concerned about the labs' involvement in nuclear weapon stockpile stewardship. Throughout the current 2017-2018 year, a sub-committee of ACSCOLI (consisting of Jeff Richman, Eric Mjolness, and William Newman, working with Chair Michael Todd) reviewed and provided feedback on the first draft of white paper. ACSCOLI members stressed the importance of providing accurate and factual information.

ACSCOLI members provided written feedback to VP Budil, including suggestions for adding greater emphasis on the science and research aspects of the labs, and the involvement of graduate students and post-docs as important elements of the relationship. The current form of the document resides with VP Budil for further iteration and action in AY 2018-2019.

Additionally, Chair Michael Todd and member William Newman worked on an "Executive Summary" one-page document that captures the non-technical ethos of the UC-labs relationship. This document is also intended for faculty and is hoped to accompany the LANL contract transition on November 1, 2018. It is still in draft stage at the conclusion of the current academic year and will be completed in draft and submitted to ACSCOLI for comment in AY 2018-2019 in the first meeting.

Joint Appointments

The topic of joint appointments between UC and the labs has been discussed over the years by ACSCOLI and other Academic Senate committees. This year, ACSCOLI learned about LANL's new "REACT" initiative to create new, innovative partnerships for the lab. The program was created to help attract talent, foster innovation, and explore creative funding mechanisms by enhancing engagement with universities in the western region. A staff member from UCOP's Office of Research and Graduate Studies attended a January 8th "mechanisms workshop" that focused on streamlining agreements and contracts for jointly-run certification programs. There will be follow-up topical workshops on campuses in the general areas of information science, engineered materials, soft matter, and nuclear science. Vice Chancellors of Research will be distributing information, but ACSCOLI members were encouraged to help spread the word as well.

At the end of the year, Vice President Arthur Ellis presented a draft "guiding principles/value proposition" for joint appointments between UC's campuses and affiliated national labs for ACSCOLI review. The idea is to have a template that would be maintained at UCOP and could be individualized for each department or faculty member as needed. ACSCOLI had some suggestions for the document, including mention of service to the nation. Refinements and customization could include start-up packages, residence times, benefits, and tenure issues. ACSCOLI also proposed the inclusion of some success metrics to track, such as increases in appointments, ability to get grants, and student participation at the labs.

Los Alamos National Lab Engineering Institute

In April, Dr. Charles Farrar from LANL joined the meeting to talk about the UCSD-LANL Engineering Institute, a research and educational collaboration between the Los Alamos National Laboratory and the University of California San Diego's Jacobs School of Engineering. Co-

directed by Farrar and ACSCOLI Chair Michael Todd, the institute engages undergraduates, graduate students and post-docs in unclassified research projects. It also offers community service programs like the Judicial Science School, which helps judges evaluate scientific arguments. The Institute is viewed as a positive way to recruit and retain engineers; despite the perception that the lab is science-focused, 42% of LANL staff have degrees in engineering.

Dr. Farrar also mentioned a recent program (part of the UCSD-LANL Engineering Institute) for new LANL employees who do not have advanced degrees. While they wait for security clearance, which can now take over a year, new hires may be paid to earn a master's degree. This solution turned a recruiting challenge into an advantage for all. This is a model by which UC campuses can partner with the labs in targeted areas of expertise to help with new hires obtaining advanced degrees in an efficient way that is funded by labs.

UC Lab Fees Research Program

Funding for the UC Lab Fees Research Program ([LFRP](#)) comes from the net fee income that UC receives for managing the Lawrence Livermore and Los Alamos National Labs. The program was restructured a few years ago to better support a pipeline from campuses to labs. The award competition is intended to be every-other year, but it is being offered two years in a row to catch up with lost funding from a few years ago. This year, the three targeted areas of research that were selected to leverage UC-national lab synergy were: national security through social sciences, climate science, and cybersecurity. The program also funds an in-residence graduate student fellowship at the labs for 2-3 years. Thematic workshops in each targeted area were held in last year, with the support of the Vice Chancellors of Research, and a symposium held in September showcased current and planned research and provided a networking opportunity for interested researchers. The approximately \$14 million available for the collaborative awards will most likely be divided into four awards, depending on the proposals. At the June meeting, ACSCOLI members learned that 31 letters of intent were submitted for the graduate fellowship competition, with 14 students interested in Los Alamos and 17 in Livermore.

Conversation with UC Regent Ellen Tauscher

UC Board of Regents member Ellen Tauscher joined the June 18th ACSCOLI meeting for an open discussion. Governor Brown appointed Tauscher to the Board of Regents last year specifically so that she would take a leadership role in lab oversight. In February, Tauscher took over the Chair of the Board of Regents' National Laboratories Subcommittee and Chair of the Board of Governors that provides oversight to the Los Alamos and Livermore National Labs. She worked behind the scenes with VP Budil on the bidding process for the Los Alamos contract. In the House of Representatives, Tauscher was Chair of the Strategic Forces Subcommittee, which has oversight for the national labs.

ACSCOLI's conversation with Tauscher included discussion of UC's unique qualifications for managing the labs and the alignment with UC's mission of public service. Tauscher noted that the announcement of the Triad contract is an opportunity for UC to shape a positive message about its management of the labs that emphasizes science, education, and public service. It is intended that the "Executive Summary" mentioned above will accompany this announcement.

General Updates from the Office of National Laboratories

- *Department of Energy and Lawrence Berkeley National Lab Contract*

The process is complete for Berkeley Lab's new streamlined contract. It eliminates many unnecessary DOE requirements and uses university policies and plans rather than DOE's when appropriate (for example, in cybersecurity). The leaner contract will mean more accountability, but also more flexibility.

- *LANS/LLNS Science & Technology (S&T) Committee*

ACSCOLI members learned about the work of the Science and Technology (S&T) Committee of the LANL and LLNL Boards. The committee serves in an advisory role to the Board, performs regular reviews of lab programs, and includes UC faculty members. UC Davis Professor Robert Powell serves as chair of the S&T Committee. The reports from the committee's reviews are not publicly available.

- *Staff Hiring*

In the past year, there has been a large amount of hiring at the labs for positions in science and engineering. Both Los Alamos and Livermore will hire an estimated 1,000 people in the next three years as an expected 30-40% of staff will turnover due to retirement. The labs are expanding recruitment efforts and developing ways to introduce more scientists to the labs.

- *Hertz Hall at LLNL*

UC and Lawrence Livermore National Lab are embarking on a joint effort to revitalize the Hertz Hall complex on the eastern edge of the lab. UC owns the properties, which were constructed between 1971 and 2003 for graduate programs, and include lab spaces, classrooms, offices, and a library. The buildings are now underutilized and facing deferred maintenance challenges. UCOP will work with LLNL to gauge campus interest in the properties, identify focal points for collaboration, and devise a model for ongoing financial and operational support.

Representation

UCSB Professor Ram Seshadri served on behalf of ACSCOLI on the LBNL Advisory Board.

Acknowledgements

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Respectfully submitted,

2017-18 ACSCOLI members:

Michael Todd, Chair (UCSD)

Shane White, Academic Council Chair

Robert May, Academic Council Vice Chair

James Chalfant, Academic Senate Past Chair, 2016-17

Jeffrey Richman, UCORP Chair

James Steintrager, UCPB Vice Chair
Steven Glaser, UCB
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William Newman, UCLA
Ivan Schuller, UCSD
Susannah Scott, UCSB
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