N1

Office of the President

TO MEMBERS OF THE NATIONAL LABORATORY SUBCOMMITTEE:

DISCUSSION ITEM

For Meeting of May 23, 2018

UPDATE ON THE NATIONAL LABORATORIES

The item will provide an update on the three UC-affiliated National Laboratories: Lawrence Berkeley National Laboratory (LBNL), Lawrence Livermore National Laboratory (LLNL), and Los Alamos National Laboratory (LANL).

LANL Contract Competition

The current management and operating (M&O) contract for LANL expires on September 30, 2018. The Department of Energy (DOE) National Nuclear Security Administration (NNSA) issued the Request for Proposal (RFP) for the follow-on contract in October 2017, and a proposal on behalf the University's team was timely submitted in December.

In March, NNSA provided notice that it was including the University team within the competitive range of bidders for further consideration, and invited the team to participate in oral discussions on March 22 in Washington, D.C.

To date, three other universities – Purdue University, Texas A&M University, and the University of Texas – have confirmed that they are bidding on the LANL contract.

On March 29, NNSA issued an amendment to the LANL RFP and directed that bidders submit their Final Proposal Revisions (FPRs) by April 5. The FPRs were to address feedback provided at orals and in written correspondence from NNSA subsequent to orals. The University's team timely submitted the FPR prior to the April 5 deadline.

It is anticipated that NNSA will announce the contract award in May 2018.

Energy Secretary Perry's Visits to Lawrence Livermore National Laboratory and Lawrence Berkeley National Laboratory

Secretary of Energy Rick Perry visited LLNL and LBNL in March, as part of a tour of DOE's Bay Area National Laboratories.

Secretary Perry made his first-ever visit to LLNL on March 26. Secretary Perry kicked off his LLNL tour by meeting with heads of the Laboratory's Weapons and Complex Integration and

Global Security directorates for briefings on nuclear weapons, modeling and simulation efforts, and nuclear threat reduction, followed by a walkthrough of the National Ignition Facility. In the afternoon, he visited the High Explosives Applications Facility and met with leaders in Global Security for discussions on foreign weapons development, biosecurity, and cyber activities.

During his all-hands meeting with employees, Secretary Perry focused much of his talk on LLNL's supercomputing capabilities, particularly its application to veterans' health issues such as post-traumatic stress disorder (PTSD) and traumatic brain injury (TBI). Secretary Perry, a U.S. Air Force veteran, has made veterans' issues a top priority in his first year in charge of DOE.

Researchers, including collaborators from UCSF, later presented Secretary Perry with information on collaborations with the National Cancer Institute, including the Accelerating Therapeutics for Opportunities in Medicine (ATOM) consortium focused on more rapid cancer drug discovery.

At the Livermore Computing Center, scientists introduced Secretary Perry to a new collaborative partnership aimed at leveraging DOE's expertise in artificial intelligence and high performance computing to bring precision medicine to patients suffering from TBI. The project utilizes the expertise and resources at multiple National Laboratories, including LLNL, LBNL, and Argonne. The Laboratories are working closely with UCSF, which is leading the Transforming Research and Clinical Knowledge in Traumatic Brain Injury (TRACK-TBI) project, one of the largest national consortiums for the most detailed clinical study of TBI.

The following day, on March 27, Secretary Perry visited LBNL and toured several of the Laboratory's DOE Office of Science user facilities, which provide state-of-the-art resources for scientists across the nation and around the world.

At the Advanced Light Source, which specializes in producing extremely bright X-ray light for examining the atomic and electronic structure of materials, Secretary Perry learned how Laboratory scientists are working with chipmakers to develop next-generation extreme ultraviolet photolithography, an advanced semiconductor manufacturing technology. He visited beamlines optimized for battery research, and microtomography to study materials in extreme detail.

The next stop was the Molecular Foundry, which provides users with expert staff and instrumentation for multidisciplinary nanoscale research. Secretary Perry met with an industry scientist who is using the facility to develop bioimaging probes for cancer detection. Secretary Perry also received an overview of Cyclotron Road, a program that identifies promising early-career innovators and provides them with the resources needed to commercialize their technologies.

Secretary Perry then visited Shyh Wang Hall for a tour of the National Energy Research Scientific Computing Center, one of the world's leading supercomputing centers for open science, and the primary scientific computing facility for the DOE Office of Science. Perry

learned about the Energy Sciences Network, the world's fastest network dedicated to science, connecting tens of thousands of scientists as they collaborate on solving some of the world's biggest scientific challenges.

LLNL's New Principal Associate Director for Operations and Business

Reva Nickelson has been appointed as LLNL's Principal Associate Director for Operations and Business. As the principal associate director for Operations and Business, Ms. Nickelson will lead the multidisciplinary 1,200-person organization that includes such areas as property and facility management, procurement, human resources, project management and construction, and nuclear operations. Ms. Nickelson joins LLNL from LBNL, where she served as Facilities Division director for the past four years, leading the operational support organizations and developing a ten-year strategic infrastructure vision. Before joining LBNL, Ms. Nickelson won a Lifetime Achievement Award at Idaho National Laboratory for her multiple patents in the field of subsurface barriers. She earned bachelor's and master's degrees in mechanical engineering from the University of Idaho, and is a member of the American Society of Mechanical Engineers. She started her new role at LLNL in April 2018.

Key to Acronyms

ATOM	Accelerating Therapeutics for Opportunities in Medicine
DOE	U.S. Department of Energy
FPR	Final Proposal Revision
LANL	Los Alamos National Laboratory
LBNL	Lawrence Berkeley National Laboratory
LLNL	Lawrence Livermore National Laboratory
M&O	Management and Operating
NNSA	National Nuclear Security Administration
PTSD	Post-Traumatic Stress Disorder
RFP	Request for Proposal
TBI	Traumatic Brain Injury
TRACK-TBI	Transforming Research and Clinical Knowledge in Traumatic Brain Injury