Department of Energy
Office of Science
Washington, DC 20585

Office of the Director

August 17, 2005

Dr. Keith O. Hodgson
Director, Stanford Synchrotron Radiation Laboratory
Department of Chemistry
Stanford University
Stanford, California 94305

Dear Dr. Hodgson:

In December 2004, the Biological and Environmental Research Advisory Committee (BERAC) issued a report on the potential scientific impact of the proposed Facility for the Production of Proteins and Molecular Tags (GTL-1). This report was very useful in clarifying the value of this facility to the scientific community. It stated:

"Unequivocally, the GTL-1 facility is essential to meet the scientific goals of the GTL program, which are to empower and transform the world of microbial biology and to enable biological research to further specific missions of the DOE Office of Science in areas of energy, environmental remediation and global climate change. It is only through the use of high-throughput, economical approaches that we can capitalize on the dramatically growing volume of new genome information, enabling and accelerating the essential step of studying and understanding microbial function on the cellular to molecular level. Only then will the potential of utilizing microbial biology as a key strategy in addressing DOE missions be realized. The success of such an endeavor will be far reaching to our Nation's economy and quality of life for decades to come.

The GTL-1 protein production facility is the crucial first step in the process to attain the goals of the GTL program. By providing high-throughput production capabilities to make proteins and related affinity reagents and tags, this GTL-1 facility will enable the scientific community to work at the cutting edge of investigating and understanding protein function."

It was also stated that "the GTL-1 facility is appropriate in scope and goals as developed and described in the most recent documentation that was made available to the Subcommittee for review," i.e., the information contained in the GTL-1 chapter of the GTL Roadmap.

As we prepare to move forward with the next steps in the planning and development of this facility I would like BERAC to provide additional advice on the value of this first GTL facility as a stand-alone facility. Given the uncertainties of out year budgets and the urgency of moving forward with the Genomics: GTL program the question has been

raised about the science that would be enabled if only the first of the four planned Genomics: GTL facilities could be built at the previously described scale and cost. I would also like BERAC's advice on the scientific impact if this first facility was built at a scale that was only 50-75 percent of the originally proposed size and scope.

I request that a draft of this report be provided to me by the end of August and that BERAC report on its findings and recommendations at its December 5-6, 2005, meeting.

Sincerely,

Raymond L. Orbach
Director