



**Department of Energy**  
Washington, DC 20585

April 19, 2001

**Dr. Margaret H. Wright**  
Bell Laboratories/Lucent Technologies  
Murray Hill, NJ 07974-0636

Dear Dr. Wright:

This letter provides a charge to the Advanced Scientific Computing Advisory Committee (ASCAC) to review two specific topics for the Office of Science.

The first topic is facilities, such as the National Energy Research Scientific Computing Center (NERSC), the Energy Sciences Network (ESnet), and the Advanced Computing Research Testbeds (ACRTs). Specific questions ASCAC may wish to consider include:


1. What is the overall quality of these facilities relative to the best-in-class in the U.S. and internationally?
2. How do these facilities relate and contribute to Departmental mission needs?
3. How might the roles of these facilities evolve to serve the missions of the Office of Science over the next three to five years?

The second topic to examine is the computational side of biotechnology. We would like ASCAC's advice on the following:

1. Areas on which the Advanced Scientific Computing Research (ASCR) program should target investments to have maximum impact on the underlying science. Possible examples of areas include specialized facilities for biological computation, basic research in underlying mathematical algorithms, or advanced computer science related to data management.
2. How to most effectively couple research supported by the ASCR program with discipline-specific research carried out by biologists.

Please conduct these reviews using experts from outside of ASCAC membership as necessary, and provide recommendations in letter report format by January 11, 2002.

Sincerely,



James F. Decker  
Acting Director  
Office of Science

