

May 27, 2004

DOE Funds Fusion Science Centers at University of Maryland/UCLA and University of Rochester

WASHINGTON, DC– The Department of Energy has selected the University of Maryland/University of California, Los Angeles (UCLA) and the University of Rochester to host two new Fusion Science Centers, Dr. Raymond L. Orbach, Director of DOE's Office of Science announced today.

The universities will establish academic centers of excellence that will focus on fundamental issues in fusion plasma science. The centers will perform research in areas of such wide scope and complexity that it would not be feasible for individual or small groups of researchers to make progress. The centers are intended to strengthen the connection between the fusion research community and the broader scientific community. Education and training will be an integral part of each center's research program.

Total Department of Energy funding for the two centers over their five-year duration is expected to be nearly \$12 million. Each of the selected centers also will be supported by matching funds. Each grant may be renewed once for an additional five years.

“These two Fusion Science Centers will strengthen basic research into the frontiers of fusion science, a central mission of the department's fusion energy sciences program,” Dr. Orbach said. “The centers will train students to meet the U.S. fusion program's future needs and help our fusion program communicate about our progress and accomplishments with the broader scientific community.”

The University of Maryland and UCLA will jointly host a Center for Multiscale Plasma Dynamics using facilities at both of the schools. With participation from Princeton University, the Massachusetts Institute of Technology (MIT) and the University of Michigan, the center will bring together scientists with expertise in applied mathematics, theoretical and computational plasma physics and basic and performance-dominated plasma experiments. The researchers will study the interaction of microscale and macroscale dynamics in key plasma physics problems. DOE funding for the University of Maryland/UCLA-led Fusion Science Center will total \$6.4 million over five years.

The University of Rochester will host the Fusion Center for Extreme States of Matter and Fast Ignition Physics. The center will develop an understanding of the physics of creating extreme states of matter using a combination of high-energy “drivers” to provide compression and high intensity lasers to provide heat. The center will involve participation of MIT, General Atomics, University of California at San Diego, Ohio State University, UCLA and the University of Texas at Austin, and it will include collaboration with the Department of Energy’s National Nuclear Security Administration programs at Rochester and Lawrence Livermore National Laboratory. DOE funding for the University of Rochester-led Fusion Science Center will total \$5.5 million over five years.

The Fusion Science Centers program is a response to recommendations of the National Research Council’s Report, “An Assessment of the Department of Energy’s Office of Fusion Energy Sciences Program.”

The centers were chosen in a two-step process. In response to a Federal Register notice last August, 14 preliminary applications to establish new Fusion Science Centers were received last fall. Following a peer review of these applications, seven collaborations were invited to submit full applications for additional peer review.

The DOE Office of Science’s fusion energy sciences program is the national basic research effort to advance plasma science, fusion science and fusion technology – the knowledge base needed for an economically and environmentally attractive fusion energy source. The program supports research to understand the physics of plasmas; to identify and explore innovative and cost-effective development paths to fusion energy; and as a partner in international efforts, to advance the science and technology of energy-producing plasmas. The fusion energy sciences program is pursuing these goals through an integrated program of research based in U.S. universities, industry, and national laboratories, augmented by a broad program of international collaboration.

DOE’s Office of Science is the single largest supporter of basic research in the physical sciences in the Nation, manages 10 world-class national laboratories and builds and operates some of the Nation’s most advanced R&D user facilities. More information about the office is available at www.sc.doe.gov.

Media contact: Jeff Sherwood, 202/586-5806

Number: R-04-115