

**Office of Science
Financial Assistance
Funding Opportunity Announcement
DE-PS02-07ER07-08**

Discovering the Nature of Dark Energy

The Office of High Energy Physics (HEP), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications for basic Research and Development (R&D) projects relevant to the development and design of experimental approaches that can discover the nature of the "Dark Energy" that permeates the universe. Subject to appropriations, funds are anticipated to be available within the non-accelerator-based research program within HEP to support this research.

A companion Program Announcement to DOE Laboratories (LAB07-08) will be posted on the Office of Science Grants and Contracts web site at:

http://www.science.doe.gov/grants/LAB07_08.html.

APPLICATION DUE DATE: February 27, 2007, 8:00 PM Eastern Time

Applications must be submitted using [Grants.gov](http://www.Grants.gov), the Funding Opportunity Announcement can be found using the CFDA Number, 81.049 or the Funding Opportunity Announcement number, DE-PS02-07ER07-08. Applicants must follow the instructions and use the forms provided on [Grants.gov](http://www.Grants.gov).

PROGRAM MANAGER:

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SUPPLEMENTARY INFORMATION:

Since its discovery in 1998, dark energy has become one of the most pressing questions in physics and astronomy, and determining its nature is a high priority science objective at DOE. Even though it is the major component of the universe, little is known about dark energy, other than that it exists.

To help in planning for future dark energy research, the High Energy Physics Advisory Panel (HEPAP), in cooperation with the Astronomy and Astrophysics Advisory Committee (AAAC), was asked to jointly establish a Dark Energy Task Force (DETF) subpanel. The DETF was asked to advise the agencies on the optimum intermediate- and long-term programs for dark energy investigations. Their report is available at <http://www.science.doe.gov/hep/DETF-FinalRptJune30,2006.pdf>.

The DETF recommended that one or more intermediate-term (Stage III) experiments with a combination of techniques be done and, in combination, that they should achieve at least a factor of three gain over current projects using the DETF figure of merit. They also recommended that one or more longer-term (Stage IV) experiments with a combination of techniques be done and that they should achieve at least a factor of ten gain in figure of merit over current projects.

The DOE HEP office calls for applications for R&D activities in FY 2007 that can deliver advances in key areas identified by the DETF report and can be integrated with proposed Stage III or Stage IV experiments to help optimize their design.

The applications should describe the overall experiment, address the key techniques which will be used to study dark energy and detail how it will meet the scientific goals put forth by the DETF report. A description and justification of the R&D activities to be carried out with the requested funds and the institutions and personnel that will be involved in each effort should be included. The application should justify the benefits and progress to be gained if funding is provided and impacts if it is not. The budget requested should describe the salaries, equipment, supplies, travel and any other items. Partnerships among multiple institutions, which may include universities, laboratories, and/or private institutions, are anticipated. If multiple institutions are involved, the lead organization should submit a consolidated application which clearly delineates the scope of work proposed by each institution and the funding requested for that scope. If the other collaborators' work is not proposed as subawards under the lead organization, they will each need to submit their own applications separately to receive a separate grant. Additional information on collaboration is available in the Application Guide for the Office of Science Financial Assistance Program that is available via the Internet at the web address: <http://www.science.doe.gov/grants/Colab.html>.

Synergistic collaborations with researchers in Federal Laboratories and Federally Funded Research and Development Centers (FFRDCs), including the DOE National Laboratories are expected, though no funds will be provided to these organizations under this Notice. Laboratories should respond to the LAB 07-08 Announcement posted at: <http://www.science.doe.gov/grants/grants.html>.

Posted on the Office of Science Grants and Contracts Web Site
January 9, 2007.