

**Office of Science
Financial Assistance
Funding Opportunity Announcement
DE-PS02-08ER08-06**

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 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 (LAB 08-06) will be posted on the Office of Science Grants and Contracts Web Site at: http://www.science.doe.gov/grants/LAB08_06.html.

APPLICATION DUE DATE: December 18, 2007, 8 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-PS02-08ER08-06. 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 with activities in Fiscal Year 2008 that can deliver advances in key areas identified by the DETF report and are relevant to optimizing the development and design of proposed Stage III or Stage IV experiments.

The applications should describe the overall project, address the key techniques which will be used to study dark energy, detail how it will meet the scientific goals put forth by the DETF report, and describe how it will help optimize the development and design of Stage III or Stage IV experiments. A description and justification of the 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.

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 08-06 Announcement posted at:

http://www.science.doe.gov/grants/LAB08_06.html.

Collaboration

Collaborative research projects with other institutions, such as universities, industry, non-profit organizations, and Federally Funded Research and Development Centers (FFRDCs), including the DOE National Laboratories, are encouraged under this Announcement. Applications submitted from different institutions, which are directed at a single research activity, should clearly indicate they are part of a proposed collaboration and contain a brief description of the overall research project. However, each application must have a distinct scope of work and a qualified principal investigator who is responsible for the research effort being performed at his or her institution. Further information on preparation of collaborative applications may be accessed via the Internet at: <http://www.science.doe.gov/grants/Colab.html>.

Program Funding

It is anticipated that up to \$4 million will be available for new projects in FY 2008, subject to availability of appropriated funds. The number and size of awards will depend on the number of meritorious applications and the availability of appropriated funds. Awards will be made for period of one year only. The cost-effectiveness of the application will be considered when comparing applications with differing funding requirements.

DOE is under no obligation to pay for any costs associated with preparation or submission of applications. DOE reserves the right to fund, in whole or in part, any, all, or none of the applications submitted.

Posted on the Office of Science Grants and Contracts Web Site
October 3, 2007.