Request for Proposals: Dana Foundation Program in Brain and Immuno-Imaging--Using Brain and Immune Imaging Innovations to Improve Human Health

Grantor: Dana Foundation
Closes: 2/28/2012
Maximum: $200,000.00

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Application Deadline: Tuesday, February 28th, 2012 at Noon

The Dana Foundation's imaging research program focuses on improving human brain and brain-immune functioning in health and disease. Funds support pilot-testing by investigators who are early in their research careers of promising but high-risk innovative ideas that have direct clinical application and that, when successful, are competitive for larger-scale support from other funders. Grant amounts may be up to $200,000 total, payable over three years. Applicants will be informed within 14 weeks on whether they will be invited to prepare full proposals. The first awards will be announced in September 2012. Any subsequent award announcements will be made in December 2012. Below is a description of the program and application process.

Please note that this will be the only proposal solicitation process this year, and selection will be extremely competitive, with fewer than 10 percent of preliminary proposals likely to receive funding.

This program, as in all Dana research programs, is oriented to the human. Submitted proposals, therefore, should focus on imaging in patients or patient tissues, and healthy volunteers.

Applications for animal model studies of brain conditions or injuries will be considered only if they relate directly to the human but cannot yet feasibly be undertaken in humans, and are anticipated to be translated into the human following the three-year grant period. Such studies that are not undertaken in humans but directly relate to the human include research on: 1) normal brain anatomy and physiology in the animal model that can help to better understand the roles of cells and networks in specific cognitive functions and how these are altered by disease and injury; and 2) animal models of human diseases, either through insertion of human genes or through naturally occurring or induced disease states, that are directly related to the human condition. Specific criteria for these types of studies are listed in the section on Eligibility.

Previously funded studies under this Program have focused primarily on 1) understanding normal brain functioning, how it is altered by disease or injury, and how it recovers or repairs, 2) assessing and improving diagnostic and therapeutic approaches, and 3) refining and advancing imaging technologies to address specific clinical questions. In addition to these three general areas of continued interest, it is becoming increasingly apparent that neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease, and mental illnesses such as schizophrenia and depression start long before they are clinically evident. The Foundation, therefore, encourages studies that seek to understand developmental processes

of disease, surrogate measures of early disease existence, and measures of disease progression. Also, for chronic traumatic encephalopathy and Alzheimer’s disease, the role of tau is becoming of increasing interest and the Foundation is receptive to considering studies on how to image tau.

The Foundation invites submission of one preliminary application per invited institution (see eligibility), using either:

• Physiological and Structural imaging - anatomical imaging of white or gray matter and measures of physiological functioning. These proposed studies should focus on patient-oriented clinical research.
• Cellular/molecular imaging - biochemical actions of specific brain cells, or their interactions with immune cells, which have direct clinical relevance to human health and disease. These studies may involve human tissues or animal models. Applications can involve the study of cells within neural circuits, using a combination of imaging and single cell electrical recording, if the techniques have already been developed.

Eligibility:

Each U.S. medical school dean, and the presidents of the few selected biomedical research institutions that have been invited by letter, may nominate one applicant. The applicant may use either physiological/structural or cellular imaging or both. To be considered under this Program, the application must be countersigned by the medical school dean or invited biomedical institute’s president.

Investigators at institutions that are affiliated with a medical school are eligible to apply only through their affiliated medical school, by submitting an application to the medical school dean. Previous applicants are eligible to reapply through their dean’s office (or biomedical research institutes’ presidents’ offices). Projects involving collaborations with NIH intramural researchers or industry scientists are acceptable.

Support is focused on faculty researchers who have demonstrated the potential for independent research careers who are at the assistant professor level, or in the first few years of their associate professor appointments. Post-doctoral fellows are not eligible to apply. Applications from junior investigators that are an extension of the work of a senior mentor, particularly if from the same institution, are discouraged.

Funding of up to $200,000 payable over three years is provided for structural/physiological or cellular imaging proposals from promising early career investigators who have not yet been awarded more than one independent research grant (R01 from the NIH or equivalent from another Federal agency).

The Foundation does not provide support for indirect costs. Instead, however, up to 10 percent of the total grant award may be used to purchase equipment for the study. The balance is to be used to meet direct research costs. Studies should be designed to obtain meaningful data within the grant award period of up to three years.

All applicants please note:

All proposals that seek to develop new imaging techniques or assays, or modify existing ones to address clinical questions, whether in structural/physiological or cellular/ molecular imaging, must provide preliminary evidence of feasibility and evidence of the investigator's experience in using the technology. Proposals seeking support without such preliminary evidence will not be considered.

Investigators proposing patient-oriented studies should provide preliminary evidence that the required number of participants—patients and controls—are available at the research institution(s) involved.

For all proposals that do not propose to undertake studies in humans, the direct relevance to human health and functioning needs to be explicitly stated. These proposed studies will only be considered if they are designed to: 1) pose a specific question concerning the disease process that is directly related to known aspects of brain pathology seen in the human; 2) alter a factor in a healthy animal for which there is some evidence of the factor's involvement in a human disease process (as opposed to altering a factor in a healthy animal to see if the result resembles a human brain disease); and 3) be translated into studies in the human following the three-year grant period.

Certain areas are not appropriate for consideration:

• Ideas for which you do not have preliminary data.
• Instrument development without initial evidence of feasibility and clinical applicability.

Descriptions of all previously funded studies are available at: http://www.dana.org/grants/imaging/.

Applying:

The Program is designed to enable investigators to obtain pilot data more quickly than is possible through other funding processes. Investigations must be applicable to human brain or brain-immune functioning or malfunctioning to be considered for funding. Research that can be supported through clinical income should not be submitted.

The application should be in the form of a four-page preliminary proposal, using at least 11-point font size (font sizes smaller than that will not be reviewed) and .5 inch margins in all directions with numbered pages, consisting of the following:

Page 1:

On institutional letterhead: Please provide a cover page containing all of the following. Write "The Dana Foundation Program in Brain and Immuno-imaging", followed by: Project title; investigator(s) name(s), title(s), phone and fax numbers, E-mail, and street addresses. Indicate the imaging category (structural/physiological or cellular/molecular, or a combination of both) and, specify the imaging technique(s) (such as fMRI, two-photon, etc). In addition, please include the names and full addresses of the sponsored research officer and the dean or president forwarding the application. All proposals must be countersigned by the dean of a U.S. medical school or president of a specifically invited research

institution to be considered eligible.

Pages 2-4:

Section I: A clearly and succinctly stated hypothesis.

Section II: The aims of the proposed research project. What disease(s), disorder(s) or injuries would be better understood, diagnosed, or treated? Or, what normal brain function or brain-immune interaction would be better understood? Or, what imaging technology would be refined and for what specific purposes? Such technology development or modification aims need to be accompanied by initial evidence of the project's feasibility.

Section III: The research significance and potential clinical application(s) of the research.

Section IV: The methods. Please clearly describe the research design and specify specific tests and analyses proposed to develop the pilot data. If enrollment of human participants is planned, please provide preliminary evidence that the number required can be recruited from the participating institution(s).

Section V: The qualifications of the primary investigator(s) for undertaking the proposed research. What facilities and resources at the applicant institution(s) would be used in the research? Please provide evidence that required technologies would be available for this project.

Additional Pages:

Appendix A: A list of all active grants and pending proposals by the applicant(s). Please include an abstract that specifies the aims for any existing or pending grants from these sources of support that are related to, or could potentially overlap with, the proposed Dana study.

Appendix B: Please provide a standard NIH four-page format CV for the primary investigator(s).

Appendix C: Optional: If high resolution photographs are vital to illustrate or support the methodology proposed, please enclose 10 glossy originals. You may include up to two additional pages to list relevant references.

Please note: At this time, do not send a budget, or any other supporting documents.

Proposal Review and Notification of Grant Awards:

Preliminary proposals received by the February 28, 2012, deadline will be reviewed for further development. Late submissions will not be considered. Applicants will be informed within approximately fourteen weeks from preliminary proposal receipt on whether or not they are being invited to prepare full proposals. Please note below the Dana Foundation's current address.

Grants will be awarded on a “rolling” basis, with the first group of approved studies to be announced in September 2012 and the second group to be announced in December 2012.

Please refer to the FAQ’s section of the Dana Foundation Web site www.dana.org/grants for any questions you may have regarding the proposal process.

The original application and ten copies, each stapled, should be sent to:

Angie Marin
Program Associate
The Dana Foundation
505 Fifth Avenue, 6th floor
New York, NY 10017

Staff is unable to respond to inquiries regarding application content.

Link: http://www.dana.org/grants/detail.aspx?id=1264