JDRF Juvenile Diabetes Research Foundation International

dedicated to finding a cure

SPECIAL REQUEST FOR APPLICATIONS FOR:

Beta Cell Survival and Function: Identification & Validation of Targets and Pathways to Develop Therapeutics for Insulin Dependent Diabetes

A major challenge impeding the discovery of new treatments for diabetes is overcoming the hurdles for the pharmaceutical industry to find novel, validated drug targets and for universities to develop fully integrated drug discovery platforms. The Juvenile Diabetes Research Foundation (JDRF) and Johnson & Johnson Services Inc. (JJSI) recognize that this challenge may be addressed by facilitating the partnership of Academia, Industry, and non-profit Research Foundations through novel research support mechanisms. Thus, the JDRF and JJSI are partnering together to request the submission of Letters of Intent for proposals aimed at the discovery and validation of drug targets and pathways to promote beta cell survival and function. The intent is for the JDRF and JJSI to facilitate academic research that could potentially lead to industry collaborations to develop novel therapeutic agents for the treatment of insulin-requiring diabetes.

There are two major forms of diabetes. Type I diabetes is an autoimmune disease characterized by the loss of functional insulin-producing beta cells, resulting in the need for insulin replacement therapy. Pharmacologic agents that safely promote beta cell survival and function may have clinical utility for preserving and maintaining beta cell mass and activity in all stages of type 1 diabetes and in the transplant setting.

As with type 1 diabetes, type 2 diabetes is a multi-factorial disease characterized by beta cell dysfunction as well as peripheral insulin resistance. Prior to the onset of frank type 2 diabetes, the beta cells compensate by hyper-secreting insulin to overcome insulin resistance in peripheral tissues. Eventually, the beta cells fail to meet this increasing metabolic demand, and the majority of type 2 diabetics will eventually become insulin-dependent. Prevention of diabetes and the slowing or reversing disease progression by preserving and restoring the insulin-producing beta cells are important medical and health economic outcomes.

The purpose of this call for Letters of Intent is to invite outstanding proposals to identify and validate novel drug targets or pathways amenable to pharmacological intervention in the beta cell that will selectively and safely enhance survival and function of the beta cell. Mechanistic studies that may directly lead to therapeutic agents may be proposed, if they are specific to safely improving beta cell survival and function.

Studies including validation with human islets/beta cells are highly desirable. However, studies based on rodent model systems will be considered, as long as potential plans or next steps for validating relevance to human pancreatic beta cell survival and function in future studies are provided. It is very important that the potential impact of the proposed study for developing new therapeutic strategies for the treatment of diabetes be provided.

Juvenile Diabetes Research Foundation International (JDRF)
26 Broadway, 14th Floor, New York, NY 10004, USA

Examples of pertinent topics include, but are not limited to:

- Identification and validation of novel targets that enable screens for the discovery of biologics or small molecules to promote beta cell survival and function in a highly specific, selective, and safe manner.
- Studies with known drugs, RNAi, or other molecular tools to discover beta cell specific and selective pharmacologic intervention points to promote beta cell survival and function, ideally including validation with human beta cells or islets.
- Discovery of beta cell specific pathways or pharmacological intervention points that govern or enhance beta cell survival and function in diabetes relevant systems and models.
- Hypothesis-driven studies with novel factors or molecules that promote beta cell survival and function in transplant models including beta cells derived from stem cell sources.
- Phenotypic evaluation of existing genetic models that help identify or validate therapeutic targets to promote survival of mature beta cells or newly regenerating beta cells.

Applicants who wish to consult with JDRF to discuss the appropriateness of their proposal to this program may do so by sending enquiries to Dr. Andrew Rakeman, JDRF Contact, (email: ARakeman@jdrf.org, phone: (212) 479-7664).

Eligibility

Applicants must hold an M.D., D.M.D., D.V.M., Ph.D., or equivalent academic degree and a faculty position or equivalent at a college, university, medical school, or comparable institution.

Applications may be submitted by domestic or foreign public or private non-profit organizations, such as colleges, universities, hospitals, laboratories, units of state or local governments or eligible agencies of the federal government.

There are no citizenship requirements.

Mechanisms of Support

JDRF and JNJSI intend to provide funds to support selected 1-2 year proposals with total annual funding ranging between $100,000-$250,000 USD per award plus indirect costs of 10%. The level and duration of funding may vary depending on the scope and overall objectives of the proposal.

JDRF and JNJSI wish to help investigators accelerate the progress and address research bottlenecks through active partnering and feedback on the research programs. Under the terms of the grant application, written quarterly reports (~1-2 pages) will be required from the funded investigator with evidence of effort towards achieving research milestones as a basis for continued support. Quarterly reports will be reviewed by both JDRF and JNJSI staff with the investigator, and, thus, will provide the opportunity for investigators to highlight progress towards research milestones as well as identify bottlenecks or impediments to progress – allowing JNJSI and JDRF the opportunity to identify ways to help address the bottlenecks.

Investigators (and Institutions) selected for grant funding will be required to sign a modified JDRF "Academic R&D Grant Award Agreement." In addition to JDRF's standard terms and conditions for academic grant awards, this agreement also includes the following requirements:

- Patent applications, public disclosures (e.g., public seminar presentations, press releases, etc.) and publications resulting from the funded research and incorporating Project results and

Project Confidential Information must be provided to JDRF and JNJSI at least thirty (30) days in advance of submission or public disclosure.

- JNJSI is granted non-exclusive rights to use Project results and Project Confidential Information for internal review purposes only for the purpose of determining JNJSI's potential interest in a further collaboration and/or licensing arrangement. In addition, JNJSI is granted a right of first negotiation to enter into such collaboration and/or licensing arrangement. Both JNJSI's rights will terminate six (6) months following receipt of a Final Progress Report summarizing the Project work and results.
- JDRF shall make Project funding payments directly to the Investigator (and Institution) as per the Award Agreement.

Applicants who wish further clarification about these issues as they relate to JNJSI may send inquiries to Dr. Jim Lenhard, Research Fellow, JNJ, Contact (email: Jlenhar1@its.jnj.com)

Letter of Intent

Prospective applicants should submit a letter of intent on-line via the proposalCENTRAL website, using the template provided therein (http://proposalcentral.altum.com/default.asp?GMID=16). Letters of Intent should be no more than two pages in length including, the following information:

- List of proposed specific aims
- Brief details of approach proposed, including rationale and references to published or preliminary data
- Short and long-term development goals set forth as quarterly milestones
- Total estimated budget and Project duration
- Future plans if successful
- Brief statement as to whether there is third party funding (e.g., government, public or private funding) that has been or will be received for the same or closely related work.

Proposal

An approved Letter of Intent is required prior to submission of a full proposal. Upon notification from JDRF that the LOI has been accepted for full application status, the modified JDRF "Academic R&D Grant Award Agreement" will be provided to the applicant. As a condition for submitting the full application, a letter of support for the terms and conditions for the award from the University's Sponsored Research Office must be provided to JDRF within two weeks of notification. The letter needs to review any pre-existing (1) 3rd party rights that would impact future project discoveries and any future collaboration/licensing and (2) agreement terms that the institution, by policy or statute, will require in an agreement between JNJ and the grant recipient.

NOTE: *If your LOI is approved, you will be able to access the full proposal template through proposalCENTRAL. Under the "Manage Proposals" tab you will find a list of applications "In Progress". If the LOI status changes to* ***LOI: Approved****, you may click the Edit button to gain access to the full application.*

All applications must be completed using the templates provided on the proposalCENTRAL website (http://proposalcentral.altum.com/default.asp?GMID=16). Proposal section templates in MS Word should be type-written, single-spaced and in typeface no smaller than 10-point font and have no more than six vertical lines per vertical inch. Margins, in all directions, must be at least ½ inch. Complete information should be included to permit review of each application without reference to previous

applications. The research plan will need to meet specific page restrictions. This information will be provided to the applicant upon notification of LOI acceptance, and will vary depending on the time frame for the study and proposed budget. Note that applications with research plans exceeding the page limit will not be reviewed. The Research Plan must be organized as follows: A) Specific Aims; B) Rationale for the Study; C) Significance of this work to Insulin Dependent Diabetes; D) Background and Preliminary Data; E) Research Design and Methods; F) Projected timelines and major milestones on a quarterly basis; G) Desired outcomes and deliverables at end of year 1 and, if applicable, year 2; H) Literature Cited (no page limit).

Review Considerations

Evaluations will be competitive and performed by an appropriate peer and JDRF Lay Review Committee members convened by the JDRF in coordination with JNJSI staff in a highly confidential manner and with avoidance of potential conflicts of interest. Scientific Reviewers will be asked to evaluate applications based on the likelihood that the proposed research will have a substantial impact on the mission of JDRF and JNJSI. The scientific review group will address and consider the following criteria in assigning the application's overall score, weighing them as appropriate for each application.

- Relevance & significance to enhancing beta-cell survival and function
- Innovation & quality of approach
- Expertise & ability of the investigators to carry out the proposed research
- Potential of the Project to lead to a novel therapeutic application to treat insulin dependent diabetes
- Future plans if successful
- Whether there is third party funding (e.g., government, public or private funding) that has been or will be received for the same or closely related work.

Key Dates

- Letters of Intent should be submitted no later than Friday, March 12, 2010 at 11:59 PM ET via the proposalCENTRAL website (http://proposalcentral.altum.com/default.asp?GMID=16). For questions regarding submission, please contact bgriffin@jdrf.org.
- Submitted letters of intent will be acknowledged with brief responses as to their suitability for further development by the relevant JDRF Program Staff no later than three weeks from submission.

RFA Release Date	LOI Deadline	Invitation of Full Applications	Institutional Letter of Support Deadline	Full Application Deadline	Response to Applicants
January 20, 2010	March 12, 2010	April 2, 2010	April 16, 2010	May 7, 2010	July, 2010

JDRF Staff Contacts:

PROGRAMMATIC
Patricia Kilian, Ph.D.
Scientific Program Director, Regeneration Program
pkilian@jdrf.org

Andrew Rakeman, Ph.D.
Scientific Program Manager, Regeneration Program
212-479-7664
arakeman@jdrf.org

ADMINISTRATIVE
Bethany L. Griffin, M.Ed.
Grant Administrator
☎ 212-479-7565
💻 BGriffin@jdrf.org

PROPOSALCENTRAL
💻 https://proposalcentral.altum.com/Login.asp
💻 pcsupport@altum.com
☎ (301)-916-4557 ext. 227, or toll free in the US, (800)-875-2562 ext. 227
Assistance can be obtained Monday through Friday between 8:30am and 5pm U.S. Eastern Time