



## **SPECIAL REQUEST FOR EXPRESSIONS OF INTEREST:**

### **STUDY OF CLINICAL POPULATIONS EXHIBITING EXTREME PHENOTYPES IN DIABETIC COMPLICATIONS**

#### **PURPOSE**

JDRF is soliciting expressions of interest (EOI) for innovative studies to identify factors conferring protection or resistance to complications, through analysis of clinical populations with extreme resistance or rapid progression to diabetic complications. JDRF is committed and most interested in investigator-initiated proposals that focus on research that will ultimately translate to results having significant clinical impact.

#### **BACKGROUND**

A key part of the JDRF mission is to alleviate the burden of chronic complications of diabetes in those living with type 1 diabetes. Developing complications therapies has been challenging due to heterogeneity of the population and a limited number of therapeutic targets. Some individuals have lived more than 50 years with type 1 diabetes developed few complications, while others have rapidly progressed to complications, even in the backdrop of good glycemic control. In order to apply the best preventive strategies to diabetes complications, biomarkers are required to stratify risk and predict and monitor progression. Studying populations with excellent longitudinal data could reveal such biomarkers, and may also reveal novel targets for therapeutic modification to slow or arrest disease. Identifying subgroups of patients at highest risk for complications progression should allow better targeting of therapies to slow or stop disease. Conversely, study of populations resistant to diabetes complications despite long duration of diabetes or poor glycemic control could reveal protective factors which might be used to develop novel therapeutic strategies. JDRF-funded studies, such as the Joslin 50 year Medalist study suggest that biological mechanisms might be found that would lead to prevention of diabetic complications.. JDRF wishes to build upon and expand such studies, as well as complementing them with greater efforts to characterize rapid progressors in order to discover new mechanisms of diabetic complications susceptibility and resistance. JDRF is therefore soliciting expressions of interest for innovative studies in clinical populations of these extreme phenotypes.

#### **OBJECTIVES**

JDRF wishes to identify novel mechanisms of complications protection and progression, as well as potential biomarkers of risk and progression. Complications of particular interest for this initiative are diabetic retinopathy, nephropathy, cardiovascular disease and neuropathy. For the purposes of this EOI, we would consider the resistant population to be those with duration of Type 1 diabetes exceeding, for example, a minimum of 30 years without development of a specific complication. 'Progressor' populations might include individuals with Type 1 diabetes progressing to clinically significant complications within 15 years of diabetes diagnosis, for example proliferative or severe non-proliferative retinopathy, diabetic macular edema, chronic kidney disease stage 3 or higher, cardiovascular events or moderate to severe diabetic peripheral neuropathy.

Collaborations between investigators with complementary collections, in order to increase power for detection and / or validate findings are strongly encouraged. In order to promote such collaborations, JDRF will hold a workshop in early 2012 following receipt of expressions of interest to bring together those with the most interesting clinical cohorts and ideas. The goals of this workshop would be to promote collaboration between investigators with complementary cohorts, consider best practices for standard measurement across cohorts and to consider novel approaches to exploiting data and samples from these cohorts. This workshop would be intended to inform final application submissions.

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

- Studies using existing clinical data, or registries to identify patients who could be studied
- Analysis of longitudinal clinical data to identify better ways to predict complications resistance or progression
- Retrospective analysis of biosamples from cohorts to identify factors conferring resistance or progression
- Studies to validate previously identified factors for complications resistance or progression in additional clinical populations
- Genetic and epigenetic studies of complications resistance or rapid progression

Investigators with ideas or resources that might benefit this initiative, for example clinical populations appropriate to these studies which might be used to replicate or validate findings, should also submit their ideas via an Expression of Interest. Investigators are strongly encouraged to consult with JDRF Program Staff prior to submission of an Expression of Interest. As courtesy, please contact Helen Nickerson (hnickerson@jdrf.org, +1-212-479-7522) to inform us of your intention to submit an EOI.

**ELIGIBILITY**

Applications may be submitted by for-profit entities as well as nonprofit organizations, public and private universities, colleges, hospitals, laboratories, units of state and local governments. There are no citizenship requirements.

**MECHANISM**

Successful projects will likely be funded via [Strategic Research Agreements](#). Research will be supported for a maximum of 36 months (3 years).

**LEVELS OF FUNDING**

Applicants should give an estimate of the level of funding appropriate to the project they are proposing. JDRF will pay up to 10% in indirect costs.

**DEADLINES**

EOI Release Date	EOI Deadline	EOI Notification	Full Application Deadline	Response to Applicants Date	Earliest Anticipated Start Date
August 18, 2011	October 14, 2011	December 22, 2011	March 15, 2012	June 2012	August 2012

**EOI COMPONENTS**

- Expressions of interest proposals should not exceed three pages including the following information:
- Name, title and institution of principal investigator (PI), co-investigator and/or key collaborator(s)
- Brief details of approach proposed, including hypothesis, scientific rationale, description of clinical population to be studied (in table form) and references to published or preliminary data (preliminary data need not be presented in detail)
- Description of potential for translation into therapies including short and long-term development goals
- Biosketches of PI and co-investigators/collaborators (does not count towards page limit)
- An estimated budget for up to 3 years duration
- An approved EOI is required prior for submission of a full proposal. Please see below for complete instructions.

#### **SUBMISSION INSTRUCTIONS**

An approved Expression of Interest is required for submission of a full proposal. Prospective applicants should submit a letter of intent on-line via the [proposalCENTRAL](#) website, using the template provided therein.

#### **REVIEW CRITERIA**

Submitted expressions of interest will be acknowledged with brief responses as to their suitability for further development by the JDRF no later than December 22, 2011.

#### **SCIENTIFIC CONTACT:**

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 New York, NY 10004  
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#### **ADMINISTRATIVE CONTACT:**

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#### **proposalCENTRAL:**

301-916-4557 ext. 227, or toll free in the US, (800)-875-2562 ext. 227

- [pcsupport@altum.com](mailto:pcsupport@altum.com)

Assistance can be obtained Monday through Friday between 8:30am and 5pm U.S. Eastern Time.