



JDRF Requests Expressions of Interest for the Assessment of Immune and Metabolic Function in long standing Human Type 1 Diabetes

Purpose of Request

JDRF is soliciting expressions of interest (EOI) for the analysis of immune and beta cell residual function in human type 1 diabetes (T1D) of at least 2 years duration.

Background

Little is known about the immune status of patients with established T1D. While some studies of immune and metabolic function in autoimmune diabetes have been done close to clinical diagnosis, similar evaluation in established disease is presently lacking. Islet antigen specific autoimmune and inflammatory responses are believed to subside or become quiescent once the source of islet antigens – the beta cell – has been eliminated in later disease stages. It has been generally assumed that T1D leads to complete loss of beta cells. In a subset of individuals with established T1D, however, this notion is beginning to be challenged, by emerging data from JDRF nPOD and the Joslin Medalist Study. A comprehensive and systematic assessment of immune and metabolic function in conjunction with ongoing or completed clinical studies in patients with long-standing T1D (with and without remaining C-peptide) could provide critical insights on disease progression post-diagnosis. Importantly, this knowledge will guide and inform the clinical testing of immune-based interventions in this patient population.

Specific Goals of Request

Expressions of interest are sought from investigators interested in characterizing immune responses and beta cell function in people with established T1D. These measurements should augment and enhance knowledge already available, or address an independent and important question. Applicants should consider these objectives when selecting populations to study, and should be prepared to justify their selections as part of the review.

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

- Analysis of beta cell specific immune effector, memory, and regulatory immune responses
- Analysis of innate and adaptive immunity and immune responses
- Relationship of beta-cell specific immune responses and beta cell reserves
- Analysis of remission of beta-cell specific autoimmunity
- Novel approaches to assess beta-cell specific memory immune responses
- Assessment of inflammation
- Assess immune function in T1D patients who have had very good glucose control, such as participants in the DCCT or completed anti-CD3 trials
- Investigators with ideas or resources that might benefit this initiative should also submit their ideas via an expression of interest

Expressions of intent should be no more than two pages in length 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 and references to published or preliminary data (preliminary data need not be presented in detail)
- Type of human samples (PBMCs, plasma, serum) and volumes required for studies
- Justification the selection of the study population to be used
- Biosketches of PI and co-investigators/collaborators (does not count towards page limit)
- Total estimated budget and project duration (not to exceed 24 months and \$165,000/year)

Inquiries in this area should be referred to Teodora Staeva Ph.D. tstaeva@jdrf.org; tel: +1-212-479-7547

Key Dates:

- Expressions of interest should be submitted via proposalCENTRAL (<https://proposalcentral.altum.com>) no later than September 15, 2010.
- Submitted expressions of interest will be acknowledged with brief responses as to their suitability for further development by the JDRF no later than October 29, 2010.