IIDP TECHNOLOGY RESOURCE AWARD (TRA)
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Section I. Funding Opportunity Purpose
The Integrated Islet Distribution Program (IIDP) announces a new funding initiative, the **2023 IIDP Technology Resource Award (TRA)**, that is intended to advance human islet research by providing support for high-impact studies that will enhance services provided by IIDP to the diabetes research community.

I-1 Key Dates:
- **Posted Date:** May 16, 2023
- **Letter of Intent:** June 15, 2023 (courtesy only)
- **Application Due Date:** July 31, 2023
- **Scientific Review:** Start Date: 6-8 weeks post receipt
- **Start Date:** October 31, 2023

Section II. Funding Opportunity Description
**II-1 Award Objectives and Scope:**
Studies supported by these awards should focus on exceptional ideas and projects that will enhance the ability of IIDP to provide new resources and services to the IIDP community of scientists. Emphasis of proposals should be on the exploration of novel assays or unique technologies that could contribute to and augment IIDP programmatic objectives to support studies of the human pancreas in states of disease and health.

*Current areas of emphasis include, but are not limited to:*

- **Resources for exploring the human islet niche:** Development and validation of standardized protocols and assays to measure quality, viability, and function of islet-associated biomaterials and tissues that may be provided by the IIDP to interested researchers. Examples of potential projects could include (but are not limited to) methods to study unique aspects of the human islet with a focus on islet interactions with vasculature, neural tissues and the extracellular matrix or projects focused on endocrine/exocrine interactions or pancreas immune interactions.

- **Beyond islets:** Collaborative studies with IIDP Islet Isolation Centers (IICs) to explore and validate procedures for handling and defining quality control metrics for non-islet pancreatic and pancreas-associated biomaterials to be provided through the network, including acinar and ductal tissues, pancreatic lymph nodes and duodenum.

IIDP encourages all applicants to consider how sex as a biological variable may be factored into research designs and analyses, and it supports the use of unbiased and well-controlled experimental designs, methodologies, analyses, interpretation and reporting of results to ensure adequate rigor and reproducibility in research.

Section III. Award Information
**Funding Instrument:** Subcontract, awarded from the IIDP-Coordinating Center

**Funds Available:** IIDP intends to commit $450,000 to $600,000 in 2023 to fund 3 to 4 awards.
**Award Budget:** Awards are limited to $150,000 to support personnel, supplies including tissue procurement costs and applicable F&A costs. Costs associated with equipment acquisition, if any, must be limited to a maximum of $5,000.

**Project Period:** The maximum project period is 12 months.

### Section IV. Eligibility Information

#### IV-1. Eligible Applicants

**Private Institutions of Higher Education**
The following types of Higher Education Institutions are encouraged to apply for support as Public or Private Institutions of Higher Education:
- Hispanic-serving Institutions
- Historically Black Colleges and Universities (HBCUs)
- Tribally Controlled Colleges and Universities (TCCUs)
- Alaska Native and Native Hawaiian Serving Institutions
- Asian American Native American Pacific Islander Serving Institutions (AANAPISIs)

**Nonprofits Other Than Institutions of Higher Education**
- Nonprofits with 501(c)(3) IRS Status (Other than Institutions of Higher Education)
- Nonprofits without 501(c)(3) IRS Status (Other than Institutions of Higher Education)

**For-Profit Organizations**
- Small Businesses/For-Profit Organizations (Other than Small Businesses)

**Foreign Institutions**
- Non-domestic (non-U.S.) Entities (Foreign Institutions) are NOT eligible to apply.
- Non-domestic (non-U.S.) components of U.S. Organizations are NOT eligible to apply.
- Foreign components, as defined in the NIH Grants Policy Statement, are NOT allowed.

#### IV-2. Required Registrations

- None

#### IV-3. Additional Information on Eligibility

- Number of Applications: Applicant organizations may submit more than one application, provided that each application is scientifically distinct; however, the IIDP will only accept one application per individual PD/PI.

#### IV-4. Eligible Individuals

Requirements for applicants applying to this FOA include:
- Candidates must hold a Ph.D., M.D., M.D./Ph.D, or equivalent degree signifying comparable research experience to the Ph.D, M.D., or M.D./Ph.D.
- Candidates must have an Open Research and Contributor ID (ORCID)
- Candidates must be able to propose an original scientific project to be pursued under this initiative. There should be no overlap with any currently funded research.
- A Single PD/PI or joint PIs are allowable, but the Award funding is shared.
- Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are encouraged to apply.
- There is no citizenship requirement for the applicant. Applicant may be a citizen or a non-citizen national of the United States, been lawfully admitted for permanent residence (i.e., possess a currently valid Permanent Resident Card USCIS Form I-551, or other legal verification of such status).
- Investigators are eligible to receive only one award under this IIDP Technology Resource Award initiative.

Section V. Application and Submission Information

V-1. Content and Form of Application Submission

- **Application Forms:** It is critical that applicants follow the instructions in the TRA Application. Conformance to the requirements in the application is required and will be strictly enforced. Applications that are out of compliance with these instructions may be returned without review.

- **Letter of Intent:** A letter of intent (LOI) is not required, is not binding, and does not enter into the review of a subsequent application. However, the information provided in the LOI allows IIDP staff to estimate the potential review workload and plan the review. By the due date listed above, prospective applicants are asked to submit a letter of intent that includes the following information:
  - Descriptive title of proposed activity
  - Name, address and telephone number of the applicant
  - Participating institution(s)
  - Names of other key personnel
  - One sentence description summary of the project aims and/or goals

The letter of intent should be sent in electronic form to James Cravens, IIDP Program Manager:
To: jcravens@coh.org
Subject line: 2023 IIDP Technology Resource Award

V-2. Instructions for Application Submission

Applications will be completed via a Recap webform. Click here to start an application. Should you need to save your application and return later to complete it, click on “Save & Return Later”, and record the unique return code that is provided.

V-2.1 Title

The title should be short and descriptive of the proposed research. Maximum space limit is 81 characters, including spaces.

V-2.2 Abstract

The abstract should be a self-contained description of the project. It should contain information about the significance, broad objectives, hypotheses, specific aims, and methods to be employed. There should be a statement describing how the project relates to the mission of the IIDP and the TRA program. All abstracts for funded applications may be made available through the IIDP public website. The maximum length is 500 words.
**V-2.3 Key Personnel/Biosketches (form pages)**

List all personnel that will contribute towards the objectives of this proposal and provide biosketches for key personnel whose training and experience match the science proposed in the application. Senior/Key Personnel are defined as all individuals who contribute in a substantive, meaningful way to the scientific development or execution of the project. Biosketches should be presented in a format that adheres to current NIH template guidelines (https://grants.nih.gov/grants/forms/biosketch.htm).

**V-2.4 Facilities and Other Resources (form page)**

The Facilities & Other Resources attachment is where you describe the resources available for the proposed research that will contribute to the success of the project. For each location where research activities will occur, you should include, as applicable, a description of:

- Laboratory resources
- Including facilities to handle biohazards and other potentially dangerous substances
- Animal facilities
- Clinical facilities
- Computing resources
- Office location
- Core facilities
- Data sets or descriptions of patient populations
- Institutional environment
- Other infrastructure or resources that are pertinent to the project

For the institutional environment, consider including a description of any department and/or division, centers and institutes here at the university, as well as the university itself.

**V-2.5 Budget and Justification (form pages)**

Present and justify all expenses required to achieve project aims and objectives. For multi-institutional applications, there must be a separate budget for each subcontractor or consortium member. Special forms are provided for the budget and justification (https://grants.nih.gov/grants/how-to-apply-application-guide/forms-h/general/g.320-phs-398-modular-budget-form.htm). Read the instructions carefully. If there is a co-investigator at another institution, for whom funds are requested, be sure to include his/her budget.

Use the Budget Justification to provide the additional information requested in each budget category and any other information to submit in support of the budget request. If you have a quote(s), you may include it here. The following budget categories must be justified, where applicable: equipment, travel, participant/trainee support, and other direct cost categories.

Also use the Budget Justification to explain any exclusions applied to the F&A base calculation.

If your application includes a subaward/consortium budget, a separate Budget Justification must be submitted. See G.310 - R&R Subaward Budget Attachment(s) Form.
V-2.6. Specific Aims
Describe concisely and realistically the goals of the proposed study, specific objectives and hypotheses to be tested, summarize expected outcomes, and describe impact on IIDP’s ability to support research objectives of the diabetes investigator community. The maximum length is 500 words.

V-2.7. ITRA Research Strategy
The research plan should conform to the following instructions with careful attention to use of the headers and word limits outlined below:

Project Summary (no longer than 30 lines of text): describe succinctly significance, objectives, and methods to be employed in the project.

Significance (500 word limit): Explain the importance of the problem or critical barrier to progress that is being addressed. Describe how your objectives and research design align with the TRA program objectives and how success in the project will enhance IIDP support for the diabetes research community.

Innovation (500 word limit): Summarize clearly and concisely what makes your project innovative and describe its potential impact on TRA program objectives, IIDP support for the scientific community, and how success will advance the field of Type 1 Diabetes research.

Approach (File upload, 5 page limit): Number the sections in this part of the application to correspond to the numbers of the Specific Aims. This section should include the following information:
• PI’s preliminary studies, data and/or experience that is relevant to the application and experimental design;
• Overview of the experimental design;
• Description of methods and analyses to be used to accomplish aims;
• Discussion of potential difficulties and limitations and how these will be overcome or mitigated;
• Expected results, and alternative approaches if needed;
• Timetable of work to be pursued;
• Discussion of how results will be collected, analyzed, and interpreted;
• Description of any new methodology to be used and why it represents an improvement over existing methods.

Note: Figures and illustrations may be included in the Research Strategy section but must fit within the page limit. Bibliographic citations are not required but if included must fit within the page limit.

V-3. Appendix Materials
• Resource Sharing Plan: Individuals are required to comply with instructions for providing Resource Sharing Plans as provided in NIH guidance.
• Collaborators: Signed statements must be provided by all collaborators and/or consultants listed as “Key Personnel” confirming their participation in the project and describing their specific roles.
V-4. Human Subjects and Planned Enrollment Report
DO NOT INCLUDE. Studies meeting the current NIH definitions of Clinical Research or Clinical Trials are NOT eligible for support under this funding opportunity. For current definitions, please see guidance at: https://grants.nih.gov/grants/glossary.htm#C

V-5. Vertebrate Animals
DO NOT INCLUDE. Studies involving vertebrate animals will not be considered responsive for the 2023 ITRA competition.

Section VI. Application Review Information
VI-1. Criteria
Only the review criteria described below will be considered in the review process. Consistent with the IIDP mission, all applications submitted will be evaluated for scientific and technical merit using external peer review.

- **Overall Impact**
  Reviewers will provide an overall impact score to reflect their assessment of the likelihood for the project to exert a sustained, powerful influence on IIDP operations and offerings to the research community, in consideration of the following review criteria.

- **Scored Review Criteria**
  Reviewers will consider each of the review criteria below in the determination of scientific merit and give a separate score for each. An application does not need to be strong in all categories to be judged likely to have major scientific impact.

  - **Significance:** Does the project address an important problem or a critical barrier to progress in the field? Is there a strong scientific premise for the project?
  - **Innovation:** Does the application use novel theoretical concepts, approaches, or methodologies? Alternatively, is a refinement, improvement, or new application of existing theoretical concepts, approaches or methodologies proposed?
  - **Approach:** Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the research objectives? Has the applicant presented strategies to ensure a robust and unbiased approach, as appropriate for the work proposed? Is rigor and reproducibility of any assays or outcomes adequately considered and described? Are potential problems, alternative strategies, and benchmarks for success presented?
  - **Investigator:** Are the PD(s)/PI(s), collaborators, and other researchers well suited to the project? If Early-Stage Investigators or those in the early stages of independent careers, do they have appropriate experience and training? If established, have they demonstrated an ongoing record of accomplishments that have advanced their field(s)?
  - **Environment:** Will the scientific environment in which the work will be done contribute to the probability of success? Are the institutional support, equipment, and other physical resources available to the investigator adequate for the project proposed?

- **Additional Review Criteria:** As applicable for the project proposed, reviewers will evaluate the following additional items while determining scientific and technical merit, and in providing an overall impact score, but will not give separate scores for these items.
Biohazards: Reviewers will assess whether materials or procedures proposed are potentially hazardous to research personnel and/or the environment, and if needed, determine whether adequate protection is proposed.

VI-2. Review and Selection Process
- Applications will be evaluated for scientific and technical merit by external peer reviewers convened by the IIDP using the stated review criteria. As part of the scientific peer review, all applications:
  - May undergo a selection process in which only those applications deemed to have the highest scientific and technical merit (generally the top half of applications under review) will be discussed and assigned an overall impact score.
  - Will receive a written critique.
  - Appeals of the IIDP peer review will NOT be accepted for applications submitted in response to this funding opportunity. Applications will compete for available funds with all other recommended applications submitted in response to this funding opportunity. Final funding decisions will be made by IIDP and NIH staff, with consideration of the following:
    - Scientific and technical merit of the proposed project as determined by scientific peer review
    - Availability of funds
    - Relevance of the proposed project to program priorities

VI-3. Anticipated Announcement and Award Dates
After review of the applications is complete, the recipient will be notified as to funding decisions by September 1, 2023.

Appendix - Application Guide
The following items will be collected as part of the application:
- **Face Page (form page 1)**
- Project Abstract
- Biographical Sketches
- Facilities and Other Resources
- Detailed Budget for Initial Budget Period
- Budget Justification Page
- Specific Aims
- Research Strategy (as detailed in Section V-2.7)
- Checklist
- Supporting Documents:
  - Resource Sharing
  - Collaborators

Contact Information:
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