Request for Applications
Team Challenge Grant Proposals
Linda Crnic Institute for Down Syndrome

Purpose:
This Request for Applications (RFA) is issued by the Linda Crnic Institute for Down Syndrome to catalyze the development of competitive NIH grant applications for P-series (Research Program Projects and Centers), U-series (Cooperative Agreements), or similar ‘team science’ NIH research grants important for the mission of the Crnic Institute. Team Challenge applications should propose innovative and synergistic research projects around a central theme of key relevance to Down syndrome, and should involve at least three faculty members of the University of Colorado holding a position of tenure-track Assistant Professor or higher. Team Challenge applications should be responsive to existing or upcoming NIH RFAs for relevant awards.

Team Challenge applications should propose the assembly of research programs to further our understanding of key Down syndrome phenotypes or co-morbidities. Successful applications should describe how the team assembled will be ‘more than the sum of the parts’, and why the research program proposed should be funded by a team science award, rather than by individual, smaller NIH awards. Examples of programs that could be developed include but are not limited to (in no particular order):

- Mechanisms of lung pathophysiology and pulmonary hypertension in Down syndrome
- Impacts of trisomy 21 on hematopoiesis and leukemogenesis
- Role of neuroinflammation in Alzheimer’s disease and other neurological manifestations of trisomy 21
- Mechanisms of autoimmunity in Down syndrome
- Causes and consequences of hypomyelination in Down syndrome
- Molecular and cellular mechanisms of congenital heart disease in Down syndrome
- Etiology and management of autoimmune and autoinflammatory skin diseases in Down syndrome
- Causes and consequences of increased bacterial infections in Down syndrome
- Mechanisms of tumor protection by trisomy 21
- Molecular mechanisms of synaptic dysfunction in Down syndrome
- Molecular and cellular basis of visual impairments in Down syndrome
- Obstructive sleep apnea in Down syndrome: etiology and consequences
- Identification of lifestyle factors that impact the appearance of Down syndrome comorbidities
- Metabolic dysregulation in Down syndrome: causes and consequences
- Molecular and cellular mechanisms of seizure disorders in Down syndrome
- Autism in Down syndrome: etiology and clinical management
- Developmental regression in Down syndrome
- Mechanisms driving phenotypic variation in cognitive ability in Down syndrome

Key Dates:
Email of Intent Due Date:       June 1, 2019
Application Due Date:           July 1, 2019
Earliest Start Date:            August 1, 2019

Crnic Team Challenge awardees are expected to submit P-, U-, or related-series applications during Cycle I of NIH 2020 deadlines (January – March 2020).

Award Information:
$100,000 to be received in August 2019 for development of new NIH application.
$100,000 to be received upon submission of new NIH application (January – March 2020). These funds would be used to continue development of the program and likely resubmission of the grant.

The Crnic Institute will pledge $50,000/year as a testament of institutional support for all successfully submitted applications. Funding will be made available in sync with NIH award.

The Crnic Institute expects to award 2-3 Team Challenge Grants in 2019, depending on quality of proposals.
Eligibility:

- All PIs must hold the rank of tenure-track Assistant Professor or higher at an academic unit of the University of Colorado.
- The application must align and/or synergize with the NIH INvestigation of Co-occurring conditions across the Lifespan to Understand Down syndromE (INCLUDE) Project, whose three components are: (1) High risk, high reward basic science studies of chromosome 21. (2) Pan-omics studies across the lifespan and among differing phenotypes/comorbidities. (3) Inclusion of people with Down syndrome in clinical research and trials.
- Awardees must attend and present at monthly Crnic Supergroup meetings and the annual Crnic Symposium.
- Awardees must self-identify as a member of the Crnic Institute (in addition to their home department) on all publications and presentations emanating from the work resulting from this Team Challenge award and the resultant NIH grant.

Application Instructions:

- **Email of Intent** should be sent to crnicgrandchallengegrant@ucdenver.edu by June 1, 2019. The Email of Intent should state the Contact PI’s full name and email address, list of collaborating PIs, and the general research area the application will address.
- **Application components** are due July 1, 2019 and include:
  - **Cover Letter** (2 pages maximum). The Cover Letter should state the full title of the project, identify the NIH Institute to which the team science proposal will be submitted in 2020, include reference to the NIH RFA, and a statement that all PIs listed on the application agree with the proposal. When necessary, the cover letter should document approval of the target NIH Institute for the eventual P-, U-, or related-series application (e.g. email from approving Program Officer).
  - **Research Strategy** outlining the proposed research program (6 pages, not counting the Bibliography) with the following sections:
    - Specific Aims (1 page)
    - Significance to Down Syndrome
    - Innovation
    - Overall Strategy and Team Structure. Preliminary results are not required, but should be included if they exist.
    - Explanation of how the project aligns and/or synergizes with the NIH INCLUDE Project.
    - Timeline
    - Bibliography (citations in NIH style, not counted toward page limit).
  - **Biosketches** for all investigators involved. Biosketches should be formatted following all NIH guidelines, which can be found online at: [https://grants.nih.gov/grants/forms/biosketch.htm](https://grants.nih.gov/grants/forms/biosketch.htm).
  - A budget is **not** required and should not be submitted.
- All application instructions and the final submission portal are found online at: [http://www.ucdenver.edu/academics/colleges/medicalschool/institutes/lindacrnic/Funding/TeamChallenge/Pages/TeamChallenge.aspx](http://www.ucdenver.edu/academics/colleges/medicalschool/institutes/lindacrnic/Funding/TeamChallenge/Pages/TeamChallenge.aspx).