DevSci Center for Research Incubation  
REQUEST FOR PROPOSALS  
SEED FUND AWARDS IN TRANSDISCIPLINARY DEVELOPMENTAL SCIENCES

**Background**
To advance its “Healthier, Earlier” mission, the Northwestern Institute for Innovations in Developmental Sciences (DevSci) is dedicated to promoting lifespan health and wellbeing via transformative science. Special focus is placed on the outsized impact of early development and experience and the critical importance of building a science base towards earlier identification and prevention across the lifespan. Within this framework, our goal is to promote transdisciplinary innovations at the nexus of biomedical and social sciences in a pipeline for rapid translation from discovery to application. To achieve this, DevSci offers an array of cross-campus shared platforms and activities, one of which is funding for pilot research initiatives.

The key objective of the DevSci pilot research initiatives, hosted in the DevSci Center for Research Incubation, is to support pilot work and collaborative efforts to enhance the competitiveness of high-impact, innovative extramural grant submissions in the developmental sciences for faculty at all levels. These pilot grants are designed to:

- **Encourage transdisciplinary research among Northwestern University faculty** whose joint focus on early-life mechanisms of lifespan health have great potential to affect the well-being of children and families. Projects must have a central focus on early life (prenatal through age 6 years); an explicit focus on advancing “earlier” identification/prevention/health promotion than the current state of science allows; and/or the contribution of neurodevelopment to health and disease pathways.
- **Promote research activities that develop and harness novel investigative approaches within one or more of DevSci’s strategic research themes**, which will lay foundations for future research on a larger scale (e.g., center grants, R01s, career development awards).
- **Facilitate novel collaborations across typically disparate arenas of science (some may never have been applied to developmental research)** to foster a growing academic and applied community of scholars and partners whose work will advance knowledge and broaden positive community impact.

Preference will be given to projects that fit into one of the six DevSci “Healthier, Earlier” Strategic Research Initiative Themes:

1. Developmental Origins of Health & Disease  
2. Autism & Intellectual/Developmental Disabilities  
3. Mental Health & Neurodevelopment  
4. Neuromotor Development & Conditions  
5. Language, Learning & Context  
6. Optimizing Outcomes in Pediatric Brain Injury

**Using Neurodevelopmental Research Methods:** A major goal of DevSci is to enhance the integration of state-of-the-art neurodevelopmental methods in research. Applicants are encouraged to use the DevSci Neurodevelopmental Core in pilot studies. Proposals may include scientific consultation, training or pilot data collection on developmentally sensitive methodologies such as natural sleep MRI and functional MRI (fMRI), EEG/ERP, eye-tracking, and/or developmentally sensitive performance based behavioral and neurocognitive assessments.

More information about the Neurodevelopmental Core can be found on our website: [https://sites.northwestern.edu/devsci/neurodevelopmental-core/](https://sites.northwestern.edu/devsci/neurodevelopmental-core/).
A total of $20,000 will be allocated for the seed fund awards. DevSci expects to award 2-4 grants from this funding announcement cycle. The awards will range from $5,000 - $10,000 depending on scope, interdisciplinary innovation, potential impact and the scale of extramural grant to be proposed. Cost-sharing from the applicants’ home schools, colleges, departments, and units is encouraged but not required. The maximum term of each award will be 12 months.

In addition, award recipients must: 1) apply for an extramural grant based on this pilot work within two years; 2) reference the funding source in all conference presentations, publications and additional grant submissions.

Eligibility
Only Northwestern faculty are eligible to receive the awards. NU students and faculty from other universities may be included on the study teams if essential. Faculty from all tracks and ranks are eligible, including early career scholars and novel collaborations enabling integration of new developmental methods or lines of research among more senior scholars.

Awardees may also be considered for the honor of being named a DevSci Linzer Fellow: PIs for these awards will be selected based on innovative research in developmental sciences that breaks new ground via transdisciplinary bridging and a program of research (established or emerging) which demonstrates collaboration as an engine of innovation. Proposals that involve faculty from at least two departments, units or schools will be prioritized. These fellowships were created in honor of the vision and leadership of former Northwestern University Provost, Daniel Linzer, who championed interdisciplinary collaboration at Northwestern and was critical to the establishment of the DevSci Institute. Linzer Fellows provide leadership in transdisciplinary collaboration and will also present a University-wide talk on their work.

Proposals
Proposals must include a statement of aims, significance, innovation, approach, investigators’ background & collaboration plan, budget, and budget justification. The aims, innovation, significance, and approach sections must be no longer than 7 double-spaced pages (Arial 11-pt font). Additional pages are permitted, in order to include references, budget and budget justification, and biosketches of the applicant PI and co-investigators.

- The aims section should include no more than 3 main goals of the project (suggested length: 0.5-1 page).
- The significance section should describe the impact of the proposed work. This section must include the potential for extramural funding, and how these pilot funds will enable a future application for extramural funding to be more competitive than if the pilot work were not conducted. Please also include the type of grant mechanism/announcement, target extramural funding source, and the anticipated timing of submission. (suggested length: 1-1.5 pages).
- The innovation section should describe the ways in which the project will advance the field of developmental sciences (suggested length: 0.5-1 page).
- The approach section should provide the design of the research, data collection and analysis plans, and a timetable for completion of the project (suggested length: 1.5-2 pages).
- The investigators’ background & collaboration plan should describe how investigators are uniquely positioned to achieve the aims of the proposed project (suggested length: 1-1.5 pages).
  - Junior faculty may also indicate if additional training and/or mentorship during the award year would further strengthen the award. Seed fund awardees will be provided with an
array of supports as needed including developmental and grantsmanship mentorship and mock grant reviews.

- A 12-month budget should be provided along with a brief narrative justification of each budget item. If requesting Neurodevelopmental Core services, please specify needs. Each applicant PI and co-investigator should submit a federal biosketch in the form that is used for their common funding agency (e.g., NIH, NSF, IES, etc). This should include a current “other support” section. For investigators who do not yet have a funding track record, please touch on research expertise and experience.

Proposals must be submitted electronically in one pdf file by April 15th, 2019, to Rachel Flynn (Rachel.flynn@northwestern.edu). No late applications will be accepted. Funding announcements will be made on or before July 1, 2019.

**Review Criteria**
Criteria by which proposals will be evaluated include:

1. **Significance** – Does the project address an unmet need? How will successful completion of the aims of the project change methods, technologies, treatments, services or preventive interventions that drive the field of developmental science or integrate new disciplines into the developmental arena? How does the pilot funding increase the likelihood of a successful grant application?

2. **Innovation** – What makes this work more than just an incremental contribution to the field? Does the application challenge and seek to shift research by utilizing novel approaches or methodologies, instrumentation or interventions? Is refinement, improvement or new application of approaches, or methodologies, instrumentation or interventions proposed?

3. **Approach** – Are the overall strategy, methodology and analyses well-reasoned and appropriate to accomplish the aims of the project? Will the strategy establish feasibility?

4. **Investigator(s) and Collaboration Plan** - Are the PI and co-investigators well suited for the project? Do the investigators have complementary and integrated expertise? Does the project include collaborators from different units, departments and schools?

5. **Budget** – Is the budget reasonable and appropriate for the request? Do the investigators already have funds for similar projects?

6. **Alignment** – Does the project advance DevSci’s “Healthier, Earlier” strategic objective?

**Final Report**
A final report on each funded project is due 12 months after the award is made. In addition, awardees will present the findings of their project at a DevSci developmental exchange.

**For questions or further information please contact:**
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