Nathan Shock Center of Excellence on Genome Integrity and Aging

UNIVERSITY OF MINNESOTA

REQUEST FOR PROPOSAL:

Nathan Shock Center of Excellence on Genome Integrity and Aging Pilot Awards Program

The UMN NSC Pilot Awards are intended to provide collaboration between the awardee and the core services provided by the UMN NSC. Projects will primarily support junior level geroscience investigators. Applications from more established investigators whose research is pivoting to aging will also be considered.

Important Information:

RFP Release Date: February 9th, 2026 ***Submission Deadline***: March 12th, 2026

Funding Start Date: Dependent on Core Resources and Project Scope

Funding Amount: Between $5,000 and $20,000/award based on project scope

Additional Information: Funding is for UMN NSC core use only. *IDC, salary, supplies and travel are not allowed*. Special review consideration given to dual-pilot applications that utilize multiple cores across multiple Nathan Shock Centers. Per the NIH Division of Aging Biology (DAB) rules set forth for all NSCs, pilot applications will not fund Alzheimer's Disease (AD) or Alzheimer's Disease-Related Dementias (ADRD) or clinical trials.

Questions: Please contact Chastity Healy, UMN NSC Program Manager. chealy@umn.edu

UMN NSC on Genome Integrity and Aging Core Descriptions:

DNA Damage and Epigenetics Core: This core provides routine measurement of epigenetic DNA marks 5-methyl-dC, 5-hydroxymethyl-dC, 5-formyl-dC, and N6-methyl-dA. Additional services include measurement of 8-oxo-dG, ƐdC, ƐdG and ƐdA by isotope dilution HPLC-ESI-MS/MS on triple quadrupole mass spectrometers or high-resolution MS/MS Orbitrap hybrid mass spectrometers.

DNA Damage Signaling and Repair Core: This Core provide access to CyTOF analysis using a panel of antibodies to measure the extent of a DNA damage response, cellular senescence and inflammation as well as provide access to a rapid, quantitative assay to measure nucleotide excision repair to investigate DNA damage, DDR, senescence, and DNA repair activity during aging.

Models of Genome Instability and Aging Core: This core provides access to a unique and large collection of human cells and murine models (and a tissue bank from the mice) in which there is a DNA repair defect that can accelerated DNA damage, senescence, inflammation and aging systemically or in a cell-specific manner.

Instructions for Applicants:

Program Manager/Core Director Consultation:

Contact the UMN NSC Program Manager and Core Leader(s) **in advance** to initiate planning for use of the core(s) services, budget planning, timeline development and data output expectations (analysis, figures, etc.) Consultations with Program Manager and Core Director are *in lieu of a letter of intent* and serve as a first step

towards preparing the application. Please note that discussion with Core Directors does not guarantee pilot award funding.

UMN NSC Program Manager:	Chastity Healy
DNA Damage & Epigentic Changes Core	Dr. Peter Villalta Dr. Natalia Tretyakova
DNA Damage Signaling & Repair Core	Dr. Xavier Revelo (CyTOF assay) Dr. Elizabeth Schmidt (NER assay)
Models of Genome Instability & Aging Core	Dr. Laura Niedernhofer Dr. Christina Camell

Formatting Requirements:

1. Arial 11 pt font with 0.5" margins
2. Figure and table font must be 9 pt or greater in size
3. Final submission must be a single PDF file
4. Email award application to Chastity Healy, UMN NSC Program Manager: chealy@umn.edu

Required Documents and page limits:

1. *COVER PAGE (1 page maximum)*
    a. Proposal title
    b. PI/PIs – name, degree, position, academic institution, department
    c. Future Development Statement – A brief statement on how the pilot project will leverage the investigator for additional future funding (NIA R01, F- or K-award, etc.), the estimated timeframe of these future application(s), and the anticipated publication(s) resulting from the pilot project.
2. *PROPOSAL (3 pages maximum)*
    a. Specific Aims (1 page)
    b. Research Plan (2 pages)
3. *BUDGET WITH JUSTIFICATION (2 pages maximum)*
    a. A table detailing project scope (sample #s, mouse #s, cell numbers, etc.) including costs/sample as discussed with the Core Leader is required.
    b. A brief budget justification (3-5 sentences)
    c. A summary of project planning/budget discussions with Core Leader (3-5 sentences)
4. *APPLICATION SUBMISSION*

    The UMN Nathan Shock Center Research Development Core (RDC) administers the Pilot Grant Program and is the primary point of contact for interested applicants. Initial inquiries and/or questions about the application process should be directed to the UMN NSC Program Manager.

UMN NSC Program Manager:

Chastity Healy

chealy@umn.edu

UMN NSC RDC Director:

Dr. Paul Robbins

probbins@umn.edu

MINNESOTA
NATHAN SHOCK CENTER