



“Nutrition, Obesity and Metabolic Health Throughout the Lifespan”

2023 NORC PILOT AND FEASIBILITY GRANT APPLICATION INSTRUCTIONS

Purpose:

Approximately \$100,000 is available to fund a maximum of 3 Pilot and Feasibility (P&F) grants for 1 year. The major objective of this program is to provide research support to **early career scientists** and **multidisciplinary teams** to develop preliminary data and/or novel methods involving **nutrition and/or obesity-related research**. Early career scientists include senior post-doctoral fellows who, at the time the submission, have been a fellow for at least 1.5 years and who have a clear commitment to a career of academic research. A letter of support from their mentoring group will be requested.

The NORC will give highest priority to translational research related to nutrition and/or obesity throughout the lifespan. The P&F awards are intended to generate preliminary data for the investigator to obtain extramural research funding from the NIH (e.g., K01, R01). We **encourage investigators** to approach problems relevant to our understanding of metabolism and function while increasing our understanding of the basic and clinical aspects of nutrition in the etiology, pathophysiology, therapy, and prevention of diseases.

This program is designed to:

- Encourage early-stage investigators (ESI) to establish new study teams, lead a project as PI and develop the needed preliminary data to support new grant applications,
- Encourage established investigators to mentor younger investigators in using novel approaches and techniques in support of application for new funding (the grant needs to come from the ESI), and
- Encourage the formation of new multidisciplinary research teams between basic, clinical, and population science.

Early-stage investigators from different fields who bring novel approaches that enhance our understanding of the basic and clinical aspects of nutrition, energy metabolism, energy intake, obesity, diabetes, and metabolic diseases are encouraged to apply as PIs and potentially collaborate with a more senior mentor with expertise in translational research. These grants will be available for one year only and special circumstances with adequate justification will allow a no-cost extension.

Applicants should note that the theme of the Pennington / Louisiana Nutrition Obesity Research Center is “Nutrition, Obesity and Metabolic Health throughout the Lifespan.” We will encourage the development of collaborative research teams focusing mostly on the three scientific areas listed below (see the Figure at the end of RFA). For molecular & cellular studies, we envision that the cellular diversity of the tissue under study be given consideration in the experimental design. For clinical studies, use of clinical data from the NORC Biorepository (my.pbrc.edu/NORC) and contribution of samples to the Biorepository is strongly encouraged.

Neuronal and molecular regulation of energy balance

- Research in this area focuses on the neuronal and molecular regulation of feeding behavior, energy balance, substrate flux and metabolism, beta-cell, skeletal muscle and adipose tissue function, insulin

signaling, inflammation and oxidative stress, epigenetics, and developmental biology, particularly in the context of obesity, diabetes, and metabolic disease.

Physical activity and energy expenditure

- This focus area encompasses studies of physical activity, thermoregulation, and energy expenditure in humans and rodent models in relation to obesity and metabolism.

Nutrition and metabolic health

- Research in this focus area includes the effects of nutrition on obesity, metabolism, and health.

Note that facility and administrative (indirect) costs for NORC Pilot & Feasibility grants is STRONGLY DISCOURAGED.

Who is Eligible?

Full-time Associate or Assistant Professors, and senior post-doctoral fellows who meet the following criteria:

- Early-stage investigators who do not have current or previous NIH (or equivalent) independent research support (excluding fellowship or career development awards)
- Senior postdoctoral fellows need to be part of the institution for at least 1.5 year at the time the submission, have plans for extramural funding and a career in an academic research setting.
- Teams of junior (faculty or senior postdoc) and senior faculty (senior as mentor only) working together to tackle a question of high priority to the NORC.
- Collaborative teams between basic, clinical, and population researchers working together to develop translational studies that pursue questions of high priority to the NORC. Collaborative projects with multiple areas of expertise are strongly encouraged.
- If you have previously been awarded a NORC Pilot & Feasibility grant, scrutiny will be given to the novelty of proposed study and track towards independent funding.

There is no citizenship requirement for P&F recipients BUT visiting scientists with whom the CENTER or other Louisiana Institution will not have a long-term collaborative relationship will not be considered for support. Applicants must hold a Ph.D., M.D., or equivalent degree, and have completion of at least 1.5 year of postgraduate work relevant to the desired research experience.

Initial Email Announcement:

January 30, 2023

Letter of Intent Due:

March 3, 2023 <http://norcfunding.pbrc.edu>

Invitation to present on:

March 20, 2023

Chosen LOI will present (see instructions below)

Full Application Due:

April 14, 2023 <http://norcfunding.pbrc.edu>

For those selected after LOI presentation

Please submit ONE DOCUMENT Electronically (PDF format in color) on the NORC website

A letter of intent is required initially to ensure eligibility and appropriateness of the research topic and to provide a rough estimate of the budget.

Letter of Intent Guidelines:

- One page maximum including the following
 - Project title, Principal Investigator and if applicable inter-institutional collaborations.
 - General description of intended work including a statement of intended NORC-PBRC scientific core usage.
 - Estimated budget
 - If applicable, name of collaborative mentor.
 - A strong letter of commitment of retention from the Chairman or Dean for applicants from other

- Louisiana institutions.
- Senior postdoctoral fellows who have been part of the institution for at least 1.5 year should include a Letter of Support from the mentor or institutional official documenting institutional commitment with potential for a full faculty position.
- NIH Biosketch

Selected investigators will be invited to give a brief presentation on the:

Significance

- Does the project address an important problem or a critical barrier to progress in the field?
- If the aims of the project are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
- How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?

Innovation

- Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?

Investigator

- Are the PI(s), collaborators, and mentors well suited to the project?

Approach

- Are the overall strategy, methodology, and analyses well-reasoned and appropriate to accomplish the specific aims of the project?
- Scientific rigor: is the planned study design, methods, and statistical approaches likely to generate high quality data worthy of publication or for use as preliminary data in a future grant application?

Feasibility

- Is the estimated budget sufficient to cover all project cost? If not, what other support is promised?
- ***Is the research feasible within the allotted time frame?***

Only investigators who receive approval following their presentation will be eligible to submit a full application.

Format of Application:

The application packet must include the following (Applicants are required to use the NIH 398 forms):

- NIH Face Page
- NIH Budget page + 1 page budget justification
NOTE: clinical protocols MUST be budgeted through the standard procedures. Contact your Sponsored Projects Office for details. Indirect costs for non-Pennington Institutions are strongly discouraged.
- NIH Biographical Sketch including "Other support" if currently independently funded.
- NIH Biographical Sketch from the mentor if applicable
- Research plan (**4-page maximum including references, Arial 11, single-spaced, .5-inch margins**).
 - A) Specific Aims
 - B) Background and Significance
 - C) Preliminary Data
 - D) Research Design and Methods and Scientific Rigor
 - E) Relevance of the Proposed Project to the theme of nutrition/obesity and metabolic health
 - F) If relevant, the role of the mentor in the design and execution of the proposed research
 - G) Description of how the results of this study will lead to future investigations/grant applications.
 - H) References.

Any additional materials including the anticipated use of the cores and letters of support should be submitted as an appendix. Please no long appendix.
- If project involves a sponsor, a consultant or a mentor, this individual must write a letter of support for the application and clarify any potential overlap between their support and the subject of the proposal.

Additional Instructions:

1. Please list the Principal Investigator's (PI) name on the top right-hand corner of every page of the application.
2. When completing the budget page, please refer to the list of expenditures allowed and not allowed included with these instructions.
3. Although facilities and administrative costs are allowed under the terms of the prime award, it is our belief that these funds should be used in the spirit intended, i.e., direct costs in support of this project. **It is hoped that for an award of this type, your institution will be willing to forego the facilities and administrative costs and consider these costs as matching funds to your project.** This provision should be addressed in your letter of support or in a separate letter of support from your grants' office to this effect.
4. Mention how your study may utilize and/or contribute to the biorepository for clinical samples (see E below)
5. The following headings should be used for the research plan (sections A-H should be 4 pages maximum).
 - A. Specific Aims:** State concisely the hypothesis to be tested and the specific aim(s) to be achieved during the grant period. The aims must be reasonable to achieve during the one-year period of the grant.
 - B. Background and Significance:** State the relevance of the proposed project to basic or clinical research focused on the prevention and control of chronic diseases. Discuss the use of one or more NORC Core Facilities.
 - C. Preliminary Studies/Progress Report:** Discuss the pertinent research findings that will help to establish the experience and competence of your project.
 - D. Research Design and Methods:** Concisely present your experimental design and the methods to accomplish your specific aims. Also indicate how the results will be interpreted and how they will lead to future investigations. Well-known methods and standard procedures may be described very briefly or referenced, but novel experimental approaches should be outlined in more detail. This section should represent the bulk of the application.
 - E. Relevance of the Proposed Project to Nutrition/obesity-related research** (see "Areas of research" above), **use of NORC cores, and use and/or contribution to the NORC biorepository.**
 - F. Role of Mentor when applicable**
 - G. Description of how the results of this study will lead to future investigations & grant applications.**
 - H. References**

Appendix (short):

- Anticipated use of the cores
- Letters of support

Allocation and Expenditure of Funds:

Testing available at the NORC Cores is provided; however, supplies (when applicable) for the testing must be budgeted.

Expenditures Allowed:

- Limited technical staff salary support (do not request more than 25% salary for a research associate)
- Research supplies and animal maintenance
- Equipment costing less than \$3,000.
- Special fees (pathology, photography, etc.)
- Supplies
- We want to encourage the use of next generation sequencing (Dr. Michael Salbaum for details)
- We also encourage the use of spatial assessment of gene expression (Dr. Michael Salbaum for details)

Expenditures NOT Allowed:

- Principal Investigator, or Co-Investigator, or Mentor salary support
- Secretarial/administrative personnel salary support

- Office equipment and supplies
- Computers
- Tuition
- Domestic or Foreign Travel
- Publication costs, including reprints
- Dues and membership fees in scientific societies
- Purchasing and binding of periodicals and books
- Honoraria and travel expenses for visiting lecturers
- Rental of office or laboratory space
- Construction or building maintenance
- Recruiting and relocation expense
- Facility and Administrative (indirect) costs are strongly discouraged

Scoring metric

Applications are scored using the NIH criterion for Significance (including the scientific premise), Innovation, Approach (including scientific rigor, reproducibility, and biological variables), and Investigator(s). Other score driving factors include the likelihood of successful execution within the funding constraints (cost and time), potential for future funding, available mentoring, and other Faculty/Institutional support.

Additional Information:

If the project involves human or animal subjects, submission to IRB or IACUC must be within one month after receipt of notice of grant award. IRB/IACUC approval will be requested as per the NIH practice of just-in-time mechanism before funding is released.

Please check our NORC website <http://NORC.pbrc.edu> or contact Jacqueline Fox (NORC Executive Secretary) at jacqueline.fox@pbrc.edu or 225-763-2686 if you have questions about the P&F application process. Directors of the NORC Cores are available for consultation, regarding study design and procedures/core services available: Cores (Human Phenotyping - Corby Martin, Molecular Mechanisms - Michael Salbaum, and Animal Models – Bob Kesterson)

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