

COBRE Project Leader Funding Available for Research in Metabolism

*The focus of the NIH-funded Arkansas Integrative Metabolic Research Center is to **understand the role of cell and tissue metabolism in disease, development, and repair through research involving advanced imaging, bioenergetics, and data science.***

Participating Organization(s) National Institutes of Health (NIH), National Institute of General Medical Sciences (NIGMS), Arkansas Integrative Metabolic Research Center (AIMRC), U of A.

Funding Opportunity AIMRC Research Project Leader – COBRE Phase I and Phase II

Announcement Type Research Project grants for NIH award number P20GM139768

Amount of Award **\$150,000 in direct costs per year for up to three years.**

Funding Opportunity Purpose The AIMRC intends to provide funding for up to three faculty members for research projects in the area of metabolism. Specifically, the purpose of this funding opportunity is to support basic and translational research projects in cell and tissue metabolism using the AIMRC [Bioenergetics Core](#), [Imaging and Spectroscopy Core](#), and/or [Data Science Core](#), and enable the acquisition of preliminary data for a R01 or equivalent federal grant application. In addition to receiving significant funding, AIMRC Research Project Leaders (RPLs) enter into a mentored faculty development program and receive extensive proposal development support. RPLs are expected to submit a competitive R01 application based on their project within their second year with the AIMRC. For more information about the AIMRC and its mission, please visit: <https://aimrc.uark.edu/>.

Funding Period Anticipated March 1, 2025 – February 29, 2026, with up to two additional years of funding following the COBRE Phase II renewal expected starting March 1, 2026.

Key Dates

Posted Date September, 3, 2024

Pre-application Due Date(s) October 1, 2024, by 11:59 p.m. PST

Pre-application Review October 2024

Full application November 1, 2024

Internal/EAC Award Review November 7-15, 2024

NIH Review December 2024 - February 2025

COBRE Research Project in Metabolism

Program Goals

The Arkansas Integrative Metabolic Research Center (AIMRC) is a Phase I COBRE at the University of Arkansas at Fayetteville (04/01/2021-02/28/2026; PI: Dr. Kyle P. Quinn). The scientific theme of the AIMRC is to understand the role of cell and tissue metabolism in disease, development, or repair through research involving advanced imaging, bioenergetics, and data science. The long-term goal of the AIMRC is to establish a sustainable interdisciplinary research center that can support biomedical research at the U of A and grow the emerging strength in metabolic research on campus. This is a mentored award where the RPL will join the Arkansas Integrative Metabolic Research Center and be supported by a team of senior faculty, research core directors, and an external advisory committee with the goal of securing major federal funding for the RPL's research program within three years.

Anticipated Timeline

Interested faculty should submit a pre-application for internal review by October 1, 2024. Three finalists will be selected to work with the AIMRC to develop and submit a full proposal for external review in November. During the following six months, the faculty member is anticipated to receive Phase I funding and will simultaneously be expected to refine their application materials and help with the submission of the COBRE Phase II renewal application in May 2025. Support beyond 1 year is conditional upon the award of Phase II funding.

Eligibility

All full-time faculty in Arkansas are eligible to apply but must have NIH ESI or New Investigator (NI) status. Applicants should have a tenure-track position or hold a multi-year appointment that includes a significant institutional investment. They should be leading their own independent research laboratory and must not have had any substantial NIH or NSF awards (e.g., R01 or CAREER). Applicants must be able to dedicate 6 mo. of annual effort to their COBRE Research Project and cannot concurrently hold an award from another COBRE, INBRE or IDeA-CTR program. Researchers are expected to have an accomplished research and publication record and be poised to compete for NIH research funding.

Use of Funds, Budget, and Allowed Expenses

\$150,000 in direct costs with up to 50% federal indirect costs may be budgeted. Expected uses are for PI salary, laboratory staff, supplies, journal publication costs, travel, AIMRC research core fees, and tuition. Requested funds should be described in detail in an NIH-formatted budget justification.

Instructions

Submit a single pre-application PDF with the components described below to Kimberley Fuller (fullerk@uark.edu) by 11:59 PM on October 1, 2024. Please use 11-point Arial font, with 0.5" page margins.

- Project Title and Summary (30 lines max)
- Specific Aims (1 page)
- Preliminary Data (optional, 1 page)
- Biographical Sketch for the Project Leader (NIH [Template](#))
- List of 2-5 suggested research mentors (preferably tenured faculty with active federal funding)
- Other Support (please also include all previous federal grant support received as PI)

Pre-applications will undergo internal review and up to three finalists will be selected in mid-October to develop a complete proposal for review and approval by our External Advisory Committee and the NIH later in the fall.

Review Criteria

Pre-applications will be reviewed for scientific merit, alignment with center goals, and the potential for securing future extramural funding. Prospective RPLs are strongly encouraged to review AIMRC resources and detail how their research plan will utilize AIMRC core facilities in *Bioenergetics*, *Imaging & Spectroscopy*, and/or *Data Science* as applicable. Successful research proposals will involve metabolic research, utilize multiple AIMRC research cores, generate strong preliminary data for competitive R01 submissions within two years, and have the potential to lead to additional future interdisciplinary and collaborative research projects with other AIMRC members. If selected as a finalist, AIMRC personnel will work with the PI to prepare a full research proposal,

which will be evaluated this fall by the AIMRC Steering Committee, AIMRC External Advisory Committee, and NIH using similar criteria.

Expectations of Awardees

Expectations of AIMRC Research Project Leader (RPL) Applicants

- If selected as an RPL finalist, the applicant is expected to develop a full 6-page research strategy and budget with mentors and AIMRC staff by November for internal and external review.
- The applicant is expected to work with AIMRC personnel and their mentor throughout the 2024-2025 academic year to edit and refine their Research Project for inclusion in our Phase II renewal application due May 29, 2025. This is a requirement to receive more than one year of COBRE funding.
- The applicant is expected to notify AIMRC staff of any expected changes in their current or pending support that could affect their eligibility as an RPL.

Expectations of AIMRC RPLs (once your project is approved by NIH)

- COBRE RPL Awardees are expected to abide by NIH rules and policy.
- Commit six months of effort per year to their project and fully spend down awarded funds each year.
- Submit a competitive NIH R01 proposal within their second year as an RPL.
- Secure significant federal support (e.g. NIH R01 or NSF CAREER) by the end of their third year of RPL support.
- Complete annual AIMRC surveys and semi-annual progress reports.
- Present progress on the research project at least twice annually.
- Regularly attend COBRE meetings, seminars, workshops, and the annual symposium.
- Work with the mentorship team to develop a Mentoring Plan and Individual Development Plan. Meet monthly with mentors.
- Acknowledge funding from the AIMRC/NIH in all relevant project-related research presentations and publications.
- Actively explore how AIMRC core facilities can assist with the completion of your research project and development of your overall research program.

Full Proposal Expectations

In addition to materials requested for pre-application review in October, a 6-page research strategy, budget, and detailed budget justification will be required by November. Applicant finalists and/or RPLs will also be expected to participate in the development of a competitive COBRE renewal submission due May 29, 2025. This renewal submission will require the RPLs to refine and update these same materials based on progress made in Phase I and feedback from AIMRC personnel. Below is a summary of RPL materials required for the Phase II submission:

- NIH Face Page (PHS 398 [Page 1](#))
- Budget: Five-year budget with a start date of 3/1/26 and an annual Direct Cost Amount of \$150,000
- Detailed Budget Justification
- Other Support (NIH [Template](#))
- Specific Aims (1 page)
- Research Strategy (Significance, Innovation, Approach, up to 6 pages plus references) should:
 - Delineate the scientific questions to be answered and/or the design principles of the project but does not need to provide extensive experimental details, as it is expected these will be developed and evolve over time with appropriate mentorship provided by the Center.
 - Include a critical assessment of existing knowledge and approaches relevant to the project and provide possible strategies to address the key goals/questions proposed, while emphasizing how the anticipated outcomes of the RP will advance the field and concisely stating the importance of the proposed research.
 - Scope should be appropriate for the RPL's research team to complete within the time frame of 2-3 years.

- Projects that carefully address a small but significant part of a bigger question are encouraged. These projects are expected to develop and evolve, benefiting from mentorship provided by the Center.
- Preliminary data are not required but, if present, will be evaluated.
- How the proposed Center and the Research Project (RP) will advance your independent career, rather than provide a detailed experimental plan for the RP.
- Describe how the COBRE support will impact long-term goals for your research program and how the Center will help advance your career goals.
- The roles of the three AIMRC Research Cores in helping you to accomplish the project's Specific Aims.
- Describe how the mentoring provided by the Center will be used and how it will benefit your career goals.
- Letter of Institutional Support: Each RPL must provide a Letter of Institutional Support from an institutional leader such as a Department Head, Dean, or Provost from the RPL's home institution. The letter must demonstrate a clear commitment to support a multi-year faculty-level appointment for the proposed RPL independent of the outcome of the COBRE grant application. Examples of strong institutional commitment include a start-up package provided by the institution, salary support, and/or independent research space within the institution.
- IRB approval (if applicable)
- IACUC approval and Vertebrate Animal Section (if applicable)

We encourage inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

AIMRC Contacts:

Kyle Quinn, PI/Director, AIMRC

kpquinn@uark.edu

Dr. Quinn can provide guidance on alignment of research projects with the AIMRC mission and discuss mentor selection.

Suresh Thallapuram, Director, Bioenergetics Core, AIMRC

sthalla@uark.edu

Dr. Thallapuram can provide information on live-cell metabolic assays and bioenergetics services offered, as well as discuss study design. Additional information can be found [here](#).

Narasimhan Rajaram, Director, Imaging & Spectroscopy Core, AIMRC

nrajaram@uark.edu

Dr. Rajaram can provide information on state-of-the-art microscopy and spectroscopy instrumentation and imaging services offered. Additional information can be found [here](#).

Xintao Wu, Director, Data Science Core, AIMRC

xintaowu@uark.edu

Dr. Wu can provide support on artificial intelligence-based approaches to elucidate relationships between large imaging, bioenergetics, and genomic and proteomic data sets. Additional information can be found [here](#).

Kimberley Fuller, Managing Director, AIMRC

fullerk@uark.edu

Ms. Fuller can provide guidance regarding the development of proposal documents, including budget development, and compliance with this solicitation.