# Autophagy, Inflammation, and Metabolism (AIM)

# Special Emphasis Pilot Program for the

# COVID-19 Novel Coronavirus

 **Request for Applications**

To elucidate the roles of autophagy, inflammation, and immunity in the COVID-19 Novel Coronavirus pandemic, the Autophagy, Inflammation, and Metabolism (AIM) CoBRE Center is now offering rapid-turnaround pilot awards focused on addressing this issue.

The AIM Pilot Program provides grants to investigators with the intention that they will use the funds to generate preliminary data to apply for external funding (preferably through a variety of NIH mechanisms, but also through other funding sources) and to improve the health of communities affected by the COVID-19 Novel Coronavirus pandemic. AIM is currently accepting grant applications for the 2020 funding period. Proposals must be received by 5:00PM MST on **Friday, May 31, 2020**, and the funding period is anticipated to be June 1, 2020 through August 15, 2020. Given the urgency of the COVID-19 Novel Coronavirus pandemic, there is some chance that NIH will allow extension of these pilot awards.

For these awards, proposals should incorporate basic or translational science approaches and should address the topic of autophagy and immunity in the context of the current viral pandemic. Proposals that also incorporate investigation into inflammation or metabolism will be prioritized.

One of AIM’s goals is to increase the autophagy-based research community at UNM and within New Mexico. Use of AIM’s scientific core facilities is strongly encouraged for AIM-supported pilot projects. AIM supports the following scientific core facilities and capabilities:

# Autophagy core (Director: Larry Sklar, PhD)

1. Animal resource: Breeding pairs of autophagy and autophagy-related gene transgenic mice for research in pilot, mPI and main personnel laboratories (IACUC approval needed)
2. Cellomics high content microscopy: Quantitative microscopy for autophagy and lipid

 droplets as well as other intracellular profiles/organelles (e.g. lysosomes, peroxisomes, potentially mitochondria, nuclear translocation, etc.). Data generated are based on unbiased data collection and represent various numerical parameters (number/cell; area/cell, percent overlap, etc.), as well as statistics on large number of cells.

1. Amnis: as above (autophagy measures) for non-adherent cells.

**Center for Molecular Discovery/Drug Discovery and Repurposing Center (Director: Larry Sklar, PhD)**

1. UCMD partners to develop and optimize assays for drug discovery and repurposing using high throughput flow cytometry and plate-reader format.
2. CMD prototypes secondary assays to evaluate specificity and selectivity, such as in multiplex assays and counter-screens, as time and resources permit.

# Inflammation and Metabolism core (Director: Judy Canon, PhD)

1. Seahorse: Oxidative phosphorylation vs glycolysis on adherent and non-adherent (special gel embedded) cells.
2. Amnis: flow cytometry for intracellular cytokines, and other profiles in inflammatory and

 immune cells, etc.

# FUNDING

It is anticipated that up to three pilot awards will be funded in this cycle (contingent on the availability of funds), with an award date of **June 1, 2020.** Awards will be made for three months of support (**June 1, 2020 to August 15, 2020**) for amounts up to $20,000 per year for Direct Costs. **Note:** A request to NIH for approval of an extension past August 31, 2020 may be sent but will be up to NIH program to approve.) Up to four awards will be funded. Budgets may include lab supplies and salary support for study personnel as needed to complete the proposed work. The AIM CoBRE may recoup unspent moneys at the end of the award period.

# ELIGIBILITY

We welcome faculty applicants from the University of New Mexico Health Sciences Center. To be eligible for funding, applicants must be **PI-eligible employees** of the University of New Mexico. One of the AIM CoBRE’s primary goals is to mentor and support junior investigators, so funding priority will be given to researchers who have not received research funding as a PI on

a federally funded grant. Senior investigators will also be considered if they can demonstrate that their application represents a significant change in the scope of their current research program.

**Important:** If applicable, IRB and/or IACUC regulatory paperwork must be submitted prior to submission of the pilot award application and notice of the relevant approvals will be required prior to initiating funding of the proposal. If no (I) human specimens and/or subjects involved (per NIH definitions) (ii) animal work (per NIH definitions) please explicitly state so in the application.

# DEADLINE FOR SUBMISSION

Deadline for this submission cycle is 5:00 PM **Friday, May 31, 2020.**

**MENTORING AND THE AIM PILOT PROGRAM**

An important part of AIM is to provide mentoring services to junior, unfunded, and to more senior investigators who feel they need mentoring advice. As part of the AIM pilot award program, each applicant at the Assistant Professor level or lower is expected to name a formal

mentor with whom regular mentoring interactions will occur, and to create a mentoring plan. The mentor may be any qualified senior investigator at UNM HSC.

# APPLICATION GUIDELINES

Applications should be prepared in general accord with the NIH PHS 398 application guidelines available from https://grants.nih.gov/grants/funding/phs398/phs398.html.

Applications must be submitted electronically as a single pdf document by **5:00PM** on the deadline date. **Applications received after this time will not be reviewed**.

Please include the following sections in your application:

**1.** Form page 1: Face Page (https://grants.nih.gov/grants/funding/phs398/fp1.pdf). **YOU DO NOT NEED TO OBTAIN OSP SIGNATURE;**

1. Form page 2: Project Summary/Abstract https://grants.nih.gov/grants/funding/phs398/fp2.pdf). **FOR THE PURPOSES OF THIS CALL, YOU MAY LEAVE THE “RELEVANCE” SECTION BLANK;**
2. Form page 4: Detailed Budget for Initial Budget Period (https://grants.nih.gov/grants/funding/phs398/fp4.pdf).
3. A detailed budget justification
4. A research proposal of no more than three pages (Specific Aims + 2 additional pages) that contains the following sections. **Each section must be addressed separately with its own heading**:
	1. Specific Aims
	2. Research Strategy
		1. Significance
		2. Innovation
		3. Approach
	3. A statement to indicate how the project will use AIM core facilities. If core facilities are not relevant to the project, please explain.
	4. A mentoring plan that lists a formal mentor (if applicable).
	5. Grant submission plan to include a description of planned NIH or other funding agency submissions
	6. Literature cited (not included in the page limit)

**Please use 11-point Arial font with one-inch margins on all four sides.** (Write concisely and limit the amount of general background to the essentials that reviewers will need to be aware of and appreciate the proposed research.)

1. A list of current and pending support. Provide a listing of all current research support from all sources. For each source listed, please provide the following information: Name of funding source, title of project, project start/end dates, and amount of direct costs available (or available to you if a multi-PI grant), and percent effort. If you are a junior faculty member, please include the following details of your startup package in this list: amount initially provided, current unspent balance, and expiration date or other restrictions if any
2. An NIH style biosketch (https://grants.nih.gov/grants/forms/biosketch.htm).

# REVIEW PROCESS

Given that an important goal of the AIM CoBRE to enhance the odds of investigators obtaining NIH funding for their project(s), NIH review criteria and procedures will be used. Each proposal will be scored according to the five NIH criteria: Significance, Investigator, Innovation, Approach and Environment. For information on these criteria and procedures see NIH notices **NOT-OD-09-024** and **NOT-OD-09-025.**

It is anticipated that at least two reviewers who will be selected to avoid conflict of interest will review each proposal.

Final decisions regarding awards will be made by AIM CoBRE Executive Committee and the AIM CoBRE PI (Vojo Deretic, PhD) based on reviews provided in consultation with its Steering Committee and External Advisory Committee.

# CONDITIONS OF AWARD

IACUC or IRB applications must be submitted well in advance of the submission deadline, and approvals must be in-hand by the time of proposal funding. Awardees will be required to sign a memorandum of agreement as a condition of project funding. This memorandum will serve to indicate the recipient’s willingness to:

* 1. Attend AIM functions,
	2. Take advantage of AIM’s mentoring and support activities,
	3. Participate in annual External Advisory Committee (EAC) meetings and program review,
	4. Cite AIM and NIGMS in any publications stemming from their pilot project,
	5. Present their work at any local or national meeting as requested, and
	6. Submitting a Research Performance Progress Report (RPPR) NIH style will be required at the completion of the pilot.

# QUESTIONS

All questions on the AIM CoBRE pilot program or related to this announcement should be directed to Sally Ann Garcia ( sangarcia@salud.unm.edu ) in the AIM program office (505-272- 9374) or to Mark R. Burge, MD ( mburge@salud.unm.edu , phone 505-272-4658).