# LINCOLN MEMORIAL UNIVERSITY-DEBUSK COLLEGE OF OSTEOPATHIC MEDICINE

MIREILLE ALHAJJ RESEARCH GRANT FOR INNOVATIVE THINKERS

## **Table of Contents**

Application Checklist	3
Information for Applicants	
Questions or help?	
Application Process	
Review Procedure	
Stipend	
Duration of Funding	
Elements of the Application	
Proposal	
Sponsor's Letter of Support	
Itemized Budget	
Ethical Research Training	
Post-Scholar award Scientific Presentation & Letter of Gratitude	
Appendix A: Application Form and Proposal Guidelines	
Appendix B: Itemized Budget Form	10
Appendix C: CITI Training	11
Appendix D: Application Evaluation Criteria	13
Appendix E: Progress Report Template	15

## **Application Checklist**

#### The completed application must contain:

An application form.

- ☐ A proposal, completed by the student with help from the sponsor.
  - The Research Committee will confirm the applicant meets the following eligibility:
    - OMS I or OMS II
    - Must be passing all courses.
    - At time of application, must have a cumulative GPA of 3.0 or higher.
    - Must not be on probation for academic or professionalism reasons.
    - Must be on schedule to take COMLEX exams.
- A <u>letter of support</u> from the proposed sponsor on institutional letterhead.
- ☐ A certificate of completion from the appropriate online training program (CITI training, including modules for Human Subjects or Animal Use or both, if applicable).
  - NOTE: THIS TRAINING MAY TAKE SEVERAL HOURS. PLEASE PLAN ACCORDINGLY.
- ☐ A budget (see page 12). Proposals that do not request funds will not be accepted.

#### **Return materials to:**

Lindsey Miller
DCOM Director of Research, Knoxville
Chair of the Research and Grants Committee
9737 Cogdill Rd
Knoxville, TN 39432
Lindsey.Miller@lmunet.edu

#### AND

Stephanie Bailey Administrative Assistant for Basic Medical Sciences DCOM Research 423-869-6548 sylvia.bailey@lmunet.edu

## **Information for Applicants**

Mireille Alhajj, mother of an LMU-DCOM student, has been fighting a rare autoimmune disease, pemphigus vulgaris, for over ten years. In the early stages of her disease, she struggled to find a physician who could diagnose her. It took two years to get a diagnosis and begin treatment. Pemphigus vulgaris can be a life-threatening disease. Early recognition and treatment are essential to survival, but the condition's rarity contributed to the delayed diagnosis and treatment initiation. There is a gap in research within the world of autoimmune and rare diseases and patients suffer unnecessarily because of this. Even with a diagnosis, finding the answers to how the disease works, why certain people get it, and the best therapy protocols to control the disease was challenging to find.

With this grant, we hope that we can enhance the research of rare or autoimmune conditions, bring answers to those who need them, and improve patient care.

- The Mireille Alhajj Research Grant for Innovative Thinkers will be awarded to a DeBusk College of Osteopathic Medicine student in year one or year two.
- The grant will be awarded to students who wish to develop novel ideas focused on
  expanding research in Autoimmune or Rare Genetic Diseases. Applicants will have the
  freedom to explore their innovative research ideas within the clinical or laboratory setting
  or by writing a comprehensive literature review on the autoimmune or rare disease of their
  interest.
- Funds may be used to support research costs or student living expenses. However, if living expenses are requested, documentation that all research costs are met must be submitted with mentor approval.
- The student must adhere to the guidelines, policies and procedures outlined by Lincoln Memorial University's Office of Research, Grants, and Sponsored Programs.
- Applications are reviewed and approved by the DeBusk College of Osteopathic Medicine Research Committee.
- Scholars are expected to provide a letter of gratitude, which will be submitted to the Research Department.

### Questions or help?

### Please contact any of the individuals listed below.

Dr. Lindsey Miller (Chair)	Lindsey.Miller@lmunet.edu	X5720	DCOMK
			235
Dr. Kip Wenger (Co-Chair)	Fred.Wenger@lmunet.edu	X4192	DCOMK
			167
Dr. Debasis Mondal	Debasis.Mondal@lmunet.edu	X5715	DCOMK
			238
Dr. Bradley Fleenor	Bradley.Fleenor@lmunet.edu	X6429	DCOM
			214
Dr. Paula Archer	Paula.Archer@lmunet.edu	X7447	DCOM
			123

#### **Application Process**

Application requirements are described in the following sections. All materials **must** be submitted as a single pdf by email to the LMU-DCOM RGC.

#### **Review Procedure**

The criteria used to review applications is attached as Appendix D. If the committee requests clarification from the applicant, the revised application must be received within one week of the request.

#### **Stipend**

The Mireille Alhajj Research Grant for Innovative Thinkers provides a stipend that may be used for the student's living expenses and/or research costs, with a maximum awarded amount of \$500. An itemized budget must be provided (Appendix B). Funding for travel expenses will not be approved. If living expenses are requested, documentation that all research costs are met must be submitted, with mentor approval.

#### **Duration and Expectations of Scholar Award**

Specific expectations for time commitment and schedule should be determined and agreed upon between the scholar and faculty mentor. Award recipients are expected to write a letter of gratitude, to be submitted to the Research Department.

Failure of award recipients to meet expectations may result in referral to the Community Standards Committee and/or the Student Progress Committee for professional deficiencies. Please see the DCOM Student Handbook "Committee Procedures for Professionalism Deficiency".

## **Elements of the Application**

#### **Proposal**

The proposal must not exceed 1,000 typewritten words, in 12-point font, with 1-inch margins (approximately 4 double-spaced pages). The proposal must be written so that it can be understood by non-experts, so avoid jargon and nonstandard abbreviations.

The proposal should contain the following sections:

- I) Title Page that includes a project summary paragraph of approximately 200 words.
- II) Problem Statement
- III) Project Design and Implementation
- IV) Potential Impact
- V) Dissemination Plan.

See Appendix A for more detailed instructions.

#### **Sponsor's Letter of Support**

The application must include a letter of support from the proposed sponsor written on an institutional letterhead. This letter should outline:

- The student's level of participation in the study. The sponsor's letter must indicate that the scope of the project is appropriate to the time available. If any preparations are in progress, or if any initial work has been done by the applicant, these should be noted.
- The letter should indicate whether the sponsor will directly supervise the applicant.
- The sponsor's letter must indicate that the facilities necessary for the project are available to the student. This includes any necessary laboratory facilities, office space, computers, and any other facilities needed to complete the project.
- The sponsor must indicate that all required supplies are available or will be purchased with the budget requested.
- The sponsor's letter must indicate the general expectations for the schedule and time commitment of the student and that the scope of the project is appropriate to the time available.

#### **Itemized Budget**

The proposal must include an itemized budget (Appendix B). A sufficient explanation of the costs must be provided in the "description" column. Please ask an RGC member if you have questions about the budget form

#### **Ethical Research Training Certificate (if applicable)**

Applicants will be required to complete the CITI online research training modules before beginning the scholar award, which is available at <a href="https://www.citiprogram.org/Default.asp">https://www.citiprogram.org/Default.asp</a>. A certificate of completion must be included in the application.

Research that involves the use of human subjects, or any data or material obtained from human subjects **must** have an Institutional Review Board (IRB) approval number.

Research that involves the use of vertebrate animals **must** have an Institutional Animal Care and Use Committee (IACUC) protocol number. These approvals should be readily available from your sponsor at the Institution which is sponsoring the research. IACUC approval **must** be submitted to RGC before the research project can begin. If any research activities occur in the absence of appropriate IRB or IACUC approvals, the funding will be withdrawn immediately, and the student may be required to repay the expended amount of the scholar award. See Appendix C for information about these protocols.

#### Post-Scholar Award Letter of Gratitude and Scientific Presentation

#### Letter of Gratitude

Students should write a letter of gratitude addressed to the Mireille Alhajj Research Grant. Letters should be typed on official LMU letterhead and emailed to the LMU-DCOM Research Department.

#### Progress Report

Mentors should submit a progress report (see Appendix E) by email to the RGC for each student scholar at an agreed upon date.

#### Research Forum Presentations

Award recipients must give a brief presentation on their research to students and faculty of LMU-DCOM. Award recipients will be encouraged to submit an abstract of their research to a scientific meeting. If the student is listed as the first author and the abstract is accepted for the meeting, the student is eligible to apply for funding to present the work. This funding will only be provided for meetings held within the contiguous United States. Only one meeting per year will be funded for each scholar.

## **Appendix A: Application**

#### LINCOLN MEMORIAL UNIVERSITY-DEBUSK COLLEGE OF OSTEOPATHIC MEDICINE APPLICATION Mireille Alhajj Research Grant for Innovative Thinkers

Applicant/Principal Investigator:			
Project Title:			
Anticipated/actual start date: Anticipated weekly time commitm			ated end date:
Dollar amount of support requeste	ed:		<u></u>
Is this project supported with inte	ernal or external	funding?	
YES			NO
a) amount of internal funds		b) am	ount of external funds
Co-investigators (if any):			
(IRB) where human subjects are invusing animals, Institutional Biologic biohazardous, toxic, or other contro	volved, the Instit cal and Chemica lled reagents/sul	utional Animal C Il Safety Committ bstances will be u	nmittees, such as an Institutional Review Board Care and Use Committee (IACUC) for projects tee (IBCSC) for projects in which used. Provide information pertaining to these IRED CERTIFICATIONS ARE ON FILE.
OVERSIGHT COMMITTEE (attach copy of approval notice with	APPROVAL Committee cha		DATE OF APPROVAL ized signature)
	NO	YES	DATE OF APPROVAL
Institutional Review Board (IRB)			
Animal Welfare Committee (IACUC)			
Institutional Biological and Chemica Safety Committee (IBCSC)	al 		
Online Training Certificate			
Other Committee (specify below)			

#### **Project Description**

Provide a brief overview of the proposed project. This narrative should be written so that it is understandable to any of the science or medical school faculty or sitting members of relevant oversight committees. Include a reference cited page (not part of page limits). Do not exceed 1000 words (approximately 4 pages of double-spaced text, 12-point font, and 1-inch margins). Please include the following sections in your proposal and refer to the rubric in Appendix D for evaluation criteria:

#### I. Title Page

The title page should contain the project title, faculty sponsor information (name, title, contact information), student information, entities involved in the project (institutions, businesses, investigators, co-investigators), the total amount of funding requested, the estimated project dates, and a paragraph of approximately 200 words summarizing the proposed project.

#### II. Problem Statement

Be certain to include a clear statement of the specific aims of this project, including any hypothesis to be tested or research questions to be addressed, and the contributions to the advancement of science or medicine that this study will make. Include a brief literature review and relate the research to work that has been done in the field already.

#### III. Project Design and Implementation

Provide a nontechnical overview of the most important methods to be used, the types of data you expect to generate, and the principal means for their evaluation. Address any limitations of the research. Include a timeline for completion of the research with relevant milestones. Report any additional employment planned during the funding period and describe how time requirements for research and additional work will be scheduled.

#### IV. Potential Impact

State the importance of your research to the scientific discipline and its potential to advance the understanding of science or medicine.

#### V. Dissemination Plan

Include a plan for disseminating the research results to the scientific community (conference presentations, publications, extramural grant applications, etc.). If possible, state the specific conference and provide dates of the conference. You may specify short-term and long-term dissemination strategies if applicable.

#### VI. Optional Materials

You may wish to include the following as appendices: results of preliminary research, CVs of project personnel, etc.

Append text, on separate pages, to this application as needed.

## **Appendix B: Itemized Budget Form**

### **Itemized Budget Form**

Use the following table as a format for preparing your itemized budget. You may add or omit categories as appropriate for your proposal, but make sure all items are described, and a calculation is provided. **NOTE: THE MAXIMUM AWARDED AMOUNT IS \$500.00** 

CATEGORY	DESCRIPTION	CALCULATION	TOTAL AMOUNT
RENT	Specify type of housing	Itemized amount paid for housing for duration of scholar award	
UTILITIES	electricity, water, gas (if not included in rent)	Itemized estimation of these expenses	
GROCERIES			
NON-CONSUMABLE SUPPLIES (generally, have a unit acquisition cost < \$500)	specify by category; (e.g., repeating pipettors, glassware, etc.)		
CONSUMABLE SUPPLIES	specify by nature (e.g., biochemicals, general chemicals, ELISA reagents, RIA kits, plastic ware, etc.)		
MISCELLANEOUS	specify by nature (e.g., preparation of graphics for presentation at meetings, hazardous waste disposal costs, etc.; provide an explanation or justification for items not apparent from the project description)		

#### EXAMPLE:

CATEGORY	DESCRIPTION	CALCULATION	TOTAL
			AMOUNT
RENT	1 BR apartment	\$500/month x .5 month	\$250
CONSUMABLE SUPPLIES	Pipet tips	\$100.00	\$250
	Assay Reagent	\$150.00	

## **Appendix C:**

## **CITI Training Courses for Lincoln Memorial University**

All personnel that work with chemicals or biological agents/products, either for teaching or research, are required by the **LMU Institutional Biological and Chemical Safety Committee** to take online training for **Biosafety/Biosecurity** as supplied by the CITI program in addition to any departmental training that is provided.

All personnel that work with humans in research protocols including surveys are required by the <u>LMU</u> <u>Institutional Review Board</u> to take online training as supplied by the CITI program. If you file a protocol for human research with IRB, the protocol cannot receive approval until all persons listed including the PI have training for **Human Subjects Research** registered with the IRB in addition to any departmental training that is provided.

All personnel who work with animals, either for teaching or research, are required by the LMU Institutional Animal Care and Use Committee to take online training as supplied by the CITI program. If you file a protocol for animal use with IACUC, the protocol cannot receive approval until all persons listed including the PI have training for Laboratory Animal Welfare registered with the IACUC in addition to any departmental training that is provided.

#### **Instructions:**

- 1. Go to the website <a href="https://www.citiprogram.org/">https://www.citiprogram.org/</a>
- 2. Register using your LMU credentials.
- 3. Please choose the appropriate courses depending on your type of research. Course content will be available in several areas:
  - **Q1 Conflicts of Interest**: If you have mixed functions or have financial or other interests in both LMU and with other organizations, then this would be an appropriate module to select. (*This must have an answer to submit a course request*)
  - **Q2 Human Subjects Research**: Required for any <u>studies that use human volunteers</u> as the test subjects, this includes intra-classroom comparison of teaching methods particularly if the research is intended for publication.
  - Q3 Good Clinical Practice: This module is for investigators doing human pharmaceutical research that is overseen by FDA GCP regulations. Currently, there is no GCP research occurring at LMU.
  - **Q4 Responsible Conduct of Research**: Choose the appropriate area of research interests.
  - Q5 Laboratory Animal Welfare: This module is required for staff using any live vertebrate animal in teaching or research at LMU. This includes off-site teaching faculty that will have direct contact with animals used in teaching at LMU. Off-site teaching faculty that have classroom-only responsibilities are not required to have CITI training. Select the appropriate role (typically 'Working with the IACUC') and any relevant species with which you will be involved.
  - **Q6 Good Laboratory Practice**: This module is for investigators doing pharmaceutical research that is overseen by FDA GLP regulations. Currently, there is no GLP research occurring at LMU.
  - Q7 Biosafety/Biosecurity: This module is required for any staff conducting research with

potentially dangerous chemicals or biological organisms/products.

- Q8 Institutional/Signatory Officials & IRB Chair: Students may skip this question.
- **Q9 Revised Common Rule**: Students may skip this question.
- Q10 Semiannual Evaluations in Depth: Students may skip this question.
- Q11 Mental Health for Higher Ed and Healthcare: Students may skip this question.
- Q12 COVID-19: Back to Campus: Not required/optional.

All staff involved with any form of research or teaching with animals should at a minimum check box for: Basic Biosafety Training

Note: you may at any time select Add a Course from your main CITI page and it will take you back to the course selection questionnaire.

## **Appendix D: Application Evaluation Criteria**

#### **APPLICATION EVALUATION CRITERIA**

#### 1. Statement of the Problem (Understanding of the problem and its importance)—20%

- Clarity of problem statement and its importance to the field of study.
- Demonstrated connection between problem and proposed research.
- Awareness of the state of current research and/or technology (e.g. does the application include references to primary literature and relate the research to work that has been done in the area?).
- Identification of gaps in existing research.

#### 2. Project Design and Implementation (Quality and technical merit)—40%

- Detailed and complete discussion of proposed research methods.
- Soundness of the research methods and appropriateness to the proposed study.
- Awareness of potential limitations of the research plan and proposed practical solutions.
- Overall feasibility of proposed project, *including timeline*.
- Innovation and creativity.

#### 3. Potential Impact—15%

Potential for a scientific or clinical advance(s) that will improve medical practice, medical education, medical knowledge, or basic science knowledge such as:

- Potential for important advances in the scientific or clinical understanding of the problem.
- Potential for advances in the field and the filling of key gaps in scientific knowledge related to medical practice, policy, or education in the United States.
- Potential to contribute useful basic science knowledge to the primary discipline.
- Relevance for improving clinical policy and practice, patient safety and/or quality of life, or medical education.
- Perceived potential for implementation of new technology, standards, or techniques (when applicable).
- Potential for innovative solution to address (all or a significant part of) the stated problem.

# 4. Capabilities/Competencies (Capabilities, demonstrated productivity, and experience of the applicant and proposed project staff)—20%

- Qualifications and experience of the researcher and/or research mentor (e.g., successful coursework completion, relevant work and/or research experience, leadership roles, mentoring experience, and record of publication).
- Applicant's record of accomplishment with respect to successful completion of previous research projects, grants, or contracts (if applicable).
- Applicant's record of accomplishment with respect to disseminating results of previous research projects, grants, or contracts (if applicable).
- Applicant's academic standing with the university (student applicants ONLY).

#### 5. Plan for Dissemination to Broader Audiences (5%)

• Does the applicant include a plan for disseminating the research?

- Is the proposed method of disseminating project results effective and feasible?
- Does the plan include conference presentations at regional or national conferences? Published manuscripts?

#### 6. Budget (unscored)

Reviewers will consider and may comment on the following additional items in the context of scientific and technical merit.

- Format of budget (e.g., is it itemized with descriptions and calculations of costs?)
- Total cost of the project relative to the perceived benefit (cost effectiveness).
- Appropriateness of the budget relative to the level of effort.
- Use of existing resources to conserve costs.
- Proposed budget alignment with proposed project activities.

## **APPENDIX E**

### PROGRESS REPORT TEMPLATE

\*Completed by mentors, submitted to RGC on an agreed upon timeline.

Grant Title:	
Name of scholar receiving the award:	
Research Sponsor	
Amount of Award:	
Project Start Date:	
Has the scholar submitted a letter of gratitude to the Research I	Department?
Yes	No
Has the scholar met all expectations for this project and has ma stated in the scholar award application?	de acceptable progress towards the goals
Yes	No
If no, please explain how these deficiencies will be addressed:	