

AUGUSTA UNIVERSITY

**MEDICAL
PARTNERSHIP**

UNIVERSITY OF GEORGIA

Medical Scholars Program – Athens Campus
AY 2021-2022

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I. INTRODUCTION TO MEDICAL SCHOLARS PROGRAM

Scientific discovery is the essence of progress in health-related science and the hope in medicine for uncovering the unknown to identify treatments and cures to human disease. The Medical Scholars Program at the Medical College of Georgia offers the opportunity for all medical students in good academic standing to become engaged in a scholarly project, whether basic biomedical, clinical, or translational research, educational research, analysis of existing health care data, or medical humanities, in close mentorship with faculty who are nationally and internationally distinguished scientists, clinicians, and academic scholars. The goals of the program are to:

- expand scholarly experiences as a means to provide an understanding of how medical knowledge is scientifically and ethically derived;
- provide an understanding of how to frame a relevant hypothesis, how to construct a testable research design, and how to evaluate critically scientific and medical data using quantitative and qualitative methods;
- provide opportunities to think creatively about solutions - to see obstacles as invitations to problem solve, typically within the context of colleagues of distinct expertise;
- provide opportunities to communicate knowledge, old and new, to colleagues through participation at local, regional, and national scientific meetings;
- provide interactive workshops to expose medical students to multiple facets encompassed within the biomedical research continuum – bench to bedside to communities and populations, and back;
- expand scholarly experiences as a means to foster an increase in the number of medical students pursuing clinical and/or translational research as a component in their clinical careers.

Program Overview

Most students choose to engage a research project during the summer (9 - 10 weeks) following completion of their first-year of medical school.

An array of research opportunities are available at the Medical College of Georgia and the University of Georgia, including:

- basic biomedical research,
- patient-oriented clinical and/or translational research,
- medical education research,
- bioinformatics and biostatistics,
- community and population healthcare services: policy development and/or analysis,
- medical humanities – ethics, history, philosophy, and literature.

The first step in the process is identification of an area of research that is of interest to you and of a faculty mentor who is working in your area of interest.

You should identify your research question and have finalized your choice of faculty mentor prior to the end of your first semester.

You will use the month of *January 2019* to craft a formal research proposal - which presents your research question/hypothesis and significance, explains your experimental design, and tells how you will evaluate your results - in collaboration with your faculty mentor.

Your research proposal and program application will need to be submitted to the Medical Scholars Program by ***Friday, February 18th, 2022***. Your application needs to be accompanied by a supporting application from your mentor with submission also by ***Friday, February 18th, 2022***.

Application forms are available on D2L in the Summer Planning Resources section of Phase 1. Discussion about crafting your research proposal and the process of submission is found in a later section - **Application Process**.

Athens campus Medical Scholars Program Director Dr. Leslie Lee (lpetch@uga.edu), Associate Dean for Research, Dr. Jonathan Murrow (jmurrow@uga.edu) and Associate Dean for Student & Multicultural Affairs, Dr. Robert Mcclowry (mcclowry@uga.edu), are available to assist at any stage of the research endeavor - the planning (discussion of research interests and identification of potential mentors), the implementation (development of a research proposal), and the completion (written summary and poster presentation) of an MSP project. ***We strongly advise you to start early and plan ahead.***

Program Requirements

- Students must have successfully completed all Phase I requirements and ***be in good academic standing***.
- Students are ***expected to a make a full-time commitment***. No activities that conflict with this effort are permitted without approval of the mentor and the Director of Medical Scholars Program (including sponsored medical mission works). Students may not have other daytime, paid employment.
- The research project must be based on a specific hypothesis that addresses an original question. Retrospective clinical chart reviews are permitted, but only if they are designed about a specific and testable hypothesis. Findings should be subjected to statistical analysis and the conclusions of the research should support or lead to the rejection of the original hypothesis. ***Literature-based reviews are not appropriate.***
- Multiple student participation on a single project (shared effort) is ***not*** permitted. The student is expected, with guidance from the mentor, to develop the hypothesis and specific aims of the project, as well as to participate in the experimental design of the study. Students are expected to assume responsibility for performing experiments and interpretation of data.
- At the conclusion of the program, each student is required to submit a ***Scholarly Abstract*** of his or her findings. The Scholarly Abstract will be placed in the Program Guide to the Annual Medical Scholars

Research Day and should be submitted to the Medical Scholars Program Dr. Leslie Lee (lpetch@uga.edu) by **Friday August 12th, 2022.**

- At the conclusion of the program, each student is required to present his or her research findings in poster format at the ***Annual Medical Scholars Research Symposium, date TBD.***

II. CONSIDERATIONS IN SELECTING A MENTOR

Selection of a faculty mentor is a key step to the success of your research project as well as to your overall enjoyment of the research experience. Your mentor will help you to identify a specific research question that makes a meaningful intellectual contribution and, additionally, will help you to craft a brief, but rigorous and well-defended, research proposal. The mentoring relationship is not only crucial to the success of your research experience, but also to the initial stages of your career.

- A good mentor has the time and interest to train **you**. A good mentor is **accessible** and **willing** - willing to help you identify and discuss an appropriate research project - willing to help you craft an appropriate research plan - willing to help you problem-solve and trouble-shoot and to set and review project goals and expectations throughout your research time.
- You should discuss possible research projects with multiple prospective mentors who work in a field of interest to you and carefully choose an active, ongoing research setting where the necessary techniques and resources are already established.
- You should make every effort to meet with other members of the laboratory/environment under your consideration: technical staff, other medical students, graduate students, summer undergraduate students, post-doctoral fellows, research faculty, etc – a stimulating research environment is a real positive additional factor to consider in selecting a mentor.

You are strongly encouraged to discuss your mentor selection with Drs. Lee, Murrow, or Francis, before committing to a choice of mentor:

- this is particularly important if you have selected a mentor who has not had a student previously or is at the beginning stages of defining their research program.
- new investigators may indeed make for a great mentor (often the best) but confirm first that he or she has significant time for you and that the research environment is appropriate.

III. THE APPLICATION PROCESS

Once you have chosen a mentor, you should identify, with extensive discussion between you and your mentor, a research goal that can be addressed during the program's ten-week time period.

- It is critical that you undertake a research problem that enables you to develop a sense of "personal ownership and commitment" and that allows you to make a meaningful intellectual contribution.
- It is not necessary that the research problem or idea originate with you; the best projects for students are those that fit into the mentor's ongoing funded research efforts.
- Research questions that use human subjects, or human derived materials, including charts and human specimens must be part of an active program already approved by IRB – **no new proposal with human subjects will be accepted - no exceptions.**

After identifying a specific problem and feasible course of study, you with the help of your mentor will need to craft and submit a brief research proposal describing your research plan.

MSP Student and Mentor Application Forms

Forms are common to all applicants and are available on D2L, in the Summer Planning Resources section of the Phase 1 course.

Please prepare information for application and submit to Dr. Leslie Lee (lpetch@uga.edu). **DO NOT SUBMIT APPLICATIONS VIA THE AUGUSTA MSP WEBSITE**

The following provides a preview of the student as well as the mentor application:

Preview of the Student Application Form – Page 1

STUDENT INFORMATION

- Name
- Birth Date
- Address
- Phone Number
- Cell Phone
- School Email
- Alternate Email

CITIZENSHIP

- If not a US Citizen, of what country are you a citizen?
- If you have a permanent resident alien "green card", please provide the number on the card

EDUCATIONAL BACKGROUND

Please list the colleges/universities you have attended, prior to entering the Medical College of Georgia.

- School Name
- Major
- Degree
- Graduation Date

Preview of the Student Application Form - Page 2

RESEARCH PLAN NARRATIVE

- Project Title
- Project Aims (Maximum of 250 words)
- Project Background and Significance (Maximum of 500 words): summarize previous studies in the field and point out what additional studies, especially your proposed work, would add knowledge to the field.
- Research Methods and Design (Maximum of 500 words): outline what you propose to do during the summer - provide brief experimental details.
- Relevance of Research to Medicine (Maximum of 250 words)
- Please discuss what you hope to learn from participation in the Medical Scholars Program and how your participation will benefit you in meeting your future education and career goals (Maximum of 250 words).
- Selective References (enter up to 10 references): list journal articles that are referenced in the research proposal/application - i.e., the published work that supports the ideas/approach of proposed work.
- Indicate whether you have any previous research experience(s)? Yes or No
- *A later section of this Handbook provides advice that may be helpful to you in crafting your research narrative - Appendix B.*

Preview of the Mentor Application Form

MENTOR INFORMATION

- Name (Principal Investigator)
- Department
- Email
- Office Address
- Phone
- Lab Location (site of work performance)
- Lab Phone

STUDENT INFORMATION

- Name
- Student Email
- Project Title

MENTOR SUPPORT STATEMENT (mentor should provide):

- Description of ongoing research activities
- List of current research support pertinent to student's project
- Description of what the student is expected to accomplish and the mentor's role in the process
- Assurance that the student will have appropriate space to work, reasonable access to supplies, and access to the mentor's time
- Assurance that the mentor will help craft and review the Scholarly Abstract for the student's education portfolio as well as the poster for presentation at the Annual Medical Scholars Symposium.

INSTITUTIONAL COMPLIANCE INFORMATION

Where will the project be conducted?

- Medical Campus
- AU Medical Center
- Other

If the project involves human subjects, human blood or tissue, or human data, including review of charts:

- provide the existing IRB file #:
- provide the existing project title:
- provide the named PI of project:

If the project involves animals:

- provide the existing IACUC file#:
- provide the existing project title:
- provide the named project PI:

If project is performed in a laboratory:

- provide the PI's Institutional Chemical #:
- provide the address of the laboratory to be used:

If project requires use of radioisotopes:

- provide the PI's User Authorization #:

IV. APPROVAL AND NOTIFICATION OF SUPPORT:

Notification of Proposal Approval and Stipend Support will be given by: **Friday, March 18th, 2022.**

V. POST-AWARD REQUIREMENTS – INSTITUTIONAL COMPLIANCE COMPONENTS & STIPENDS

Students awarded Medical Scholars Program funding will be notified of Institutional Compliance concerns, but it is the **responsibility of the student and his/her mentor** to ensure approval of all Medical College of Georgia or University of Georgia compliance requirements. Projects will become ineligible for funding and study unless all compliance documentation is provided by the program's starting date. Approval of compliance components takes considerable time, so submit your required elements promptly upon request. For questions regarding institutional compliance please see Dr. Lee (lpetch@uga.edu).

The Medical Scholars Program participation stipends will be processed as a payment from UGA Accounts Payable. There will be a single payment at the end of June. Note that taxes will not be withheld, and you will be provided a 1099 Form at a later date for tax purposes. Please follow these steps so we have the information required to process your payments.

- 1) Register as a UGA supplier at <https://suppliers.uga.edu/> (as an individual). A video tutorial is available [here](#) if needed. Click See It! to view the video.
- 2) Download and fill out numbers 1-7 on the UGA Non-Employee Payment Form (found at https://busfin.uga.edu/forms/Non_emp_payment.pdf - you may not receive your university supplier number when you register, so skip number 3 if that is the case). Print two copies and sign each on the Payee line.
- 3) Complete the bottom sections of this form and bring this and the two signed copies of the UGA Non-Employee Payment Form to the Medical Partnership Business Office in Winnie Davis room 302 by **May 3, 2021. This form must have Dr. Leslie Lee's signature of approval before submitting to the Medical Partnership Business Office.**

Contact Courtney Simmons-Dorsey, Medical Partnership Administrative Manager, with any questions at csdorsey@uga.edu or 706-713-2200.

VI. SCHOLARLY ABSTRACT

At the conclusion of the program, each student is required to submit a **Scholarly Abstract** of his or her findings. The Scholarly Abstract will be placed in the Program Guide to the Annual Medical Scholars Symposium and should be submitted to the Medical Scholars Program Dr. Leslie Lee (lpetch@uga.edu) by **Friday, August 12th, 2022**.

- The abstract, which needs to be approved by the research mentor, should include: the question that the research sought to answer, the approach/experiments used to test the hypothesis, the results obtained, the interpretations drawn, and the significance of the findings to medicine.

VII. ANNUAL MEDICAL SCHOLARS RESEARCH SYMPOSIUM

At the conclusion of the program, each student is required to present his or her research findings in poster format at the **Annual Medical Scholars Research Symposium**.

- This forum provides an important arena for you to present your work to a cross-departmental and cross-school audience of students and faculty. Many of you will use this platform as a stepping-stone to future presentations at regional, national and/or international scientific meetings.
- Your poster need not present a completed project. Ten weeks is a short period of time and it is unlikely that all will proceed as you planned at the outset, so your findings may best be discussed as “work in progress” - this is quite acceptable.
- Instructions on how to prepare a Research Poster will be posted on D2L, in the Summer Planning Resources section of the Phase 1 courses.

VIII. INFORMATION FOR MENTORS OF MEDICAL SCHOLARS PROGRAM STUDENTS

The Medical Scholars Program at the AU/UGA Medical Partnership offers the opportunity for all medical students in good academic standing to engage in research activities, and considers research experiences as a valuable component of medical student education, regardless of student's ultimate career choice – academic medicine, private practice medicine, or biomedical research scientist.

The following suggestions are offered to ensure a better understanding of the expectations of the research mentor's role:

- The research project must be based on a specific hypothesis that addresses an original question. Clinical chart reviews are permitted, but only if they are designed about a specific and testable hypothesis. Findings should be subjected to statistical analysis (if appropriate) and the conclusions of the research should support or lead to the rejection of the original hypothesis. Literature reviews are *not* permitted.
- For projects that lend themselves to statistical analysis, please contact Dr. Leslie Lee (lpetch@uga.edu).
- The student's project should be of a scope to ensure the likelihood that the student will be able to obtain results that confirm or negate his/her hypothesis within the Program's timeframe – 9 to 10 weeks.
- It is not necessary that the research problem or idea originates with the student, but it is critical that the student undertakes a research problem that he/she can develop a sense of "personal ownership and commitment" and make a meaningful intellectual contribution. The student should be expected to contribute significantly to the crafting of the research proposal under your guidance and should not be viewed as only "a pair of hands" or "help" for another's research efforts.
- During the research period, the student and the mentor should meet at least weekly to problem-solve and trouble-shoot student efforts, and to set and review project goals and expectations.
- The mentor should facilitate the student's participation in regular laboratory meetings, journal clubs or other research activities that enhance the student's scientific and communication awareness.
- The mentor should discuss with the student how the projects goals and accomplishments should be organized and presented in the Scholarly Abstract as well as in the research poster presented at the Annual Medical Scholars Symposium.
- The mentor should be available to attend their student's presentation at the Medical Scholars Symposium to provide any necessary feedback to others in attendance.
- The mentor is responsible for all research direction and efforts as well as experimental results.

APPENDIX A

MEDICAL SCHOLARS PROGRAM - IMPORTANT DATES

CALENDAR ACADEMIC YEARS 2021 - 2022

- Proposal Application Submission Deadline: Friday 18 February 2022.
- Notification of Proposal Approval: Friday 18 March 2022.
- M1 School Year Ends: Friday 13 May 2022.
- M2 School Year Begins: Monday 1 August 2022
- Program Abstract Submission Deadline: Friday 12 August 2022.
- Program Poster Print Submission Deadline: TBD
- Annual Medical Scholars Program Student & Resident Research Symposium: TBD

APPENDIX B

CRITERIA TO CONSIDER WHEN CRAFTING YOUR RESEARCH NARRATIVE

The following points comprise some general criteria that may help you in crafting your research application.

Specific Aims

- describe the research problem or question that you intend to answer.
- describe the approach that you will use to test your hypothesis.

Background and Significance

- discuss the state of knowledge in your field of investigation.
- identify existing gaps in the knowledge of your field of study.
- discuss how your investigations will fill the existing gaps and further advance the field of study.

Research Methods and Design

- discuss in sufficient detail how you will accomplish each Specific Aim.
- identify appropriate methodology, but do not let the specifics of the methodology become the focus of your proposal.
- discuss the strengths and weaknesses of your approach.
- discuss how you will analyze your data as it relates to your hypothesis.

Anticipated Results

- discuss anticipated outcomes and potential difficulties that you might encounter in your study and how you will overcome those difficulties.
- discuss how you will interpret the outcome of your study as it relates to your hypothesis.

Relevance of Research to Medicine

- discuss how your research lends itself to progress in the field of medicine: e.g., elucidation of a basic mechanism of disease; health care practice or policy; community health care or policy; world health care or policy; etc.

Selective References

- selected references should convey the context and validity of your research question and experimental design – it is not intended to be a literature review.

Personal Statement

- discuss what you hope to learn from participation in the program and how your participation will benefit you in meeting your future educational and career goals.

** Review carefully your proposal application to ensure that it contains all requested elements prior to submitting it as a single document. Applications with missing components will not be reviewed.

MEDICAL SCHOLARS PROGRAM

Athens, Georgia

APPLICATION PROCESS

Once you have chosen a mentor, you should discuss with your mentor an achievable research goal that can be addressed during the program's ten-week time period. It is critical that you undertake a research problem that enables you to develop a sense of "personal ownership and commitment" and make a meaningful, intellectual contribution. It is not necessary that the research problem or idea originate with you; the best projects for students are those that fit into the mentor's ongoing funded research efforts.

Research questions that use human subjects, or human-derived materials, including charts and human specimens, must be part of an active program already approved by the IRB. **No new proposal with human subjects will be accepted - no exceptions.**

After identifying a specific problem and feasible course of study, you, with the help of your mentor, need to craft and submit a brief research proposal describing your research plan.

The **MSP Student and Mentor Application Forms**, which are common to all applicants, are available on D2L.

MSP STUDENT APPLICATION FORM

Please complete the fillable PDF application form found on D2L and submit it by email to Dr. Leslie Lee (lpetch@uga.edu). The application form contains essay questions that should be printed on a separate page(s) and emailed with the application. For questions or concerns, please contact Dr. Lee.

MSP MENTOR APPLICATION FORM

Please have mentors complete the fillable Mentor Application Form and submit it along with a letter of support and a copy of their CV. If project has IRB/IACUC approval, letter of support MUST include assurance that the student will be added to the approved IRB/IACUC protocol.

All proposals must have documentation of approval (IRB/IACUC protocol number) for all required institutional compliances (research involving human subjects / research involving animal subjects / research involving recombinant DNA and biohazards / research involving use of radioisotopes / research involving use of high hazard chemicals) BEFORE any project can begin and BEFORE any stipend funds will be released.

DEADLINES

Application Forms Submission: **February 18th, 2022**

Abstracts Submission: **August 12th, 2022**



MEDICAL SCHOLARS PROGRAM

Athens, Georgia

INSTRUCTIONS:

Please complete this fillable PDF application and submit it to the Student Applicant. It will be the student's responsibility to submit ALL of the MSP paperwork at one time to the Curriculum Office. *The Mentor Application Form contains a Support Statement that needs to be printed on a separate page* and emailed or given to the student with your application.

For questions or concerns, please contact:

Leslie Petch Lee, PhD

Associate Dean for Academic Enhancement & Campus Integration

Director, Medical Scholars Progeam

(706) 713-2182 or lpetch@uga.edu

MSP MENTOR APPLICATION FORM

MENTOR INFORMATION

Name (Principal Investigator):

Institution:

Department:

Office Address:

City:

State:

ZIP Code:

Email:

Lab/Office Location (Site of work performance):

Phone Number:

Lab/Office Phone Number:

STUDENT INFORMATION

Name:

Student Email:

Project Title:

MSP MENTOR APPLICATION FORM

INSTITUTIONAL COMPLIANCE COMMITTEE INFORMATION

1. Where will the project be conducted? AU Campus AU Medical Center UGA Other

2. If the project involves **humans, human blood or tissue, or human data** (including review of charts):

- Provide the existing IRB approval #:
- Provide the existing title:
- Provide the named PI:
- **NOTE: Projects requiring a new IRB application will not be funded.**

3. If the project involves **animals**:

- Provide the existing IACUC File #:
- Provide the existing title:
- Provide the named PI:
- **NOTE: Projects requiring a new IACUC application will not be funded.**

4. If project is performed in a **laboratory**:

- Provide the PI's Institutional Chemical #:
- Provide the address of the laboratory to be used:

5. If project requires use of **radioisotopes**:

- Provide the PI's User Authorization #:

MENTOR SUPPORT STATEMENT (Please attach a separate sheet):

In the Support Statement, the mentor should discuss the following elements:

1. Description of ongoing research activities.
2. Identification of current research support pertinent to student's project.
3. **Assurance that the student will be added to the appropriate IRB protocol.**
4. Description of what the student is expected to accomplish and the mentor's role in the process.
5. Assurance that the student will have appropriate work space, reasonable access to supplies, and access to the mentor's time.
6. Assurance that the mentor will help craft and review the Scholarly Abstract for the student's education portfolio, as well as, the poster for presentation at the **Annual Medical Scholars Research Day**.

Save this form before you submit it.

MEDICAL SCHOLARS PROGRAM STUDENT APPLICATION FORM

STUDENT INFORMATION

Name:

Date of birth:

Cell Phone Number:

Current address:

City:

State:

ZIP Code:

School Email:

Alternate Email:

CITIZENSHIP

If not a US citizen, of what country are you a citizen?

If you have a permanent resident alien ("green card"), please provide the number on the card:

EDUCATION BACKGROUND

Please list the colleges/universities you have attended prior to matriculating at the AU/UGA Medical Partnership.

School Name:

Major:

Degree:

Graduation Date:

School Name:

Major:

Degree:

Graduation Date:

MENTOR INFORMATION

Name (title, first, last, suffix):

Department:

Mentor Email:

Mentor Phone Number:

Location where work will be performed:

MEDICAL SCHOLARS PROGRAM STUDENT APPLICATION FORM

RESEARCH PLAN INFORMATION

(Attach a separate sheet)

PROJECT TITLE:

PROJECT AIMS

Briefly state Project Specific Aims: *(Maximum of 250 words)*

PROJECT BACKGROUND & SIGNIFICANCE

Summarize previous studies in the field and describe how additional studies, including your proposed work, would add knowledge to the field. *(Maximum of 500 words)*

RESEARCH METHODS & DESIGN

Outline exactly what you propose to do during the summer with some brief experimental details. *(Maximum of 500 words)*

RELEVANCE OF RESEARCH TO MEDICINE

Summarize how this research is/will be relevant to medicine. *(Maximum of 250 words)*

GOALS

Please discuss what you hope to learn from participation in the Medical Scholars Program and how your participation will benefit you in meeting your future education and career goals. *(Maximum of 250 words)*

SELECTIVE REFERENCES

Enter up to 10 references below. List journal articles that are referenced in the research proposal/application – i.e., the published work that supports the ideas/approach of proposed work.

EXPERIENCE

Have you had any previous research experience(s)? Yes No

Save this form before you submit it.