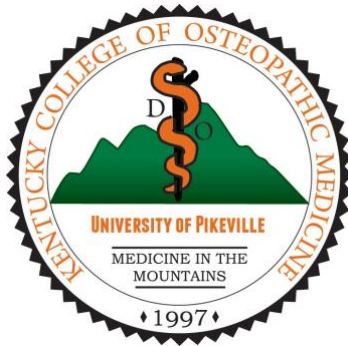,

UP-KYCOM SUMMER RESEARCH FELLOWSHIP
Application Instructions 2022

The University of Pikeville-Kentucky College of Osteopathic Medicine (UP-KYCOM) anticipates funding up to 15 Osteopathic Medical Student research projects through the UP-KYCOM Summer Research Fellowship program in the summer of 2022. This is a great opportunity for UP-KYCOM students who wish to participate and obtain experience in biomedical, clinical, experimental, or translational research. Research projects can have a basic medical science, community health, clinical, or osteopathic orientation. All current UP-KYCOM students who are matriculating at the time of the award and in good academic standing are eligible to apply.

I.   PROGRAM OVERVIEW:

The following are mandatory deadlines and activities in the UP-KYCOM Summer Research Fellowship program. Please refer to individual sections below for detailed information. Please note that for the below activities dates may be flexible. Please pay special attention to all items indicated by * throughout this document.

Date	Activity	Related Section(s)
Nov 15, 2021 **February 8, 2022**	• Application materials become available on Canvas • **Letter of Intent Submitted to Research Committee**	Section VIII
Prior to March 22, 2022	• Select mentor for summer research • Prepare research proposal with the mentor • All studies requiring an IRB must have a completed IRB application (or waiver) included in application to Research Committee.	Section II
March 22, 2022	• **Deadline for proposal submission**	Section III
April 5, 2022	• Announcement of Summer Research Fellowship recipients	Section III and IV
May 20 – July 29, 2022	• Conduct summer research as proposed*	Section II-B and V
May 27, 2022	• Deadline for completion of selected, required training (including mentor-identified specific training) ✓✓ Note that deadlines for completing all other required training are specified by the mentor in the application.	Section V
June 24, 2022 (1ˢᵗ meeting) July 22, 2022 (2ⁿᵈ meeting)	• Group meeting #1 – "Work in Progress" • Group meeting #2 – "Work in Progress"	Section V
August 16, 2022 (Tentative)	• Presentations to: Students, Faculty, Staff	Section V
April 8, 2023 (Tentative)	• Poster Presentation during UPIKE Symposium	Section V

*This can be modified if the proposed project will not be completed during the summer of 2022

II. PREPARE YOUR APPLICATION WITH SELECTED MENTOR:

A. Mentor

1. Every applicant must identify a primary mentor to assist in preparation of their application. The primary mentor can be a faculty member from UP-KYCOM (internal mentor) or a professional from another institution with adequate research/training experience (external mentor). If a co- mentor (internal or external) is identified, the co-mentor will share the responsibilities listed below with the primary mentor as well as provide all documents listed below.

2. Mentor responsibilities include: sponsoring and supervising the proposed research project; providing the necessary resources for the project; assisting the applicant with the application process **(BUT NOT WRITING THE PROPOSAL FOR THE APPLICANT);** ensuring that funded applicants complete all required training (see sections V); ensuring the applicants project stays on track; and helping prepare required research presentations and posters. Time must be allotted for the award recipient to attend the group meetings, presentations and workshops required for all Summer Fellowship recipients (see section V for details and exceptions).

3. Each mentor must provide a letter indicating their willingness to supervise the applicant, the availability of space and resources needed to conduct the proposed research and a brief description of the training/experience the student will obtain during the fellowship. The letter should also indicate whether the applicant will be under direct supervision of the mentor and if not, indicate who will be supervising the applicant.

4. Each mentor must complete and sign the attached **"UP-KYCOM Summer Research Fellowship Mentor's Checklist"** and provide a recent CV or Bio Sketch with the application

B. Applicant

1. Please use the attached **"UP-KYCOM Summer Research Fellowship Application Form"** and work with your mentor to prepare your application. *Please DO NOT exceed the allotted space for each section (using <u>Times New Roman Font 11</u>).*

2. Instructions for the **"UP-KYCOM Summer Research Fellowship Application Form"**:
   - Cover page: Please fill in all required administrative information.

   *For the following sections (1-3), please focus on the **PROPOSED** project, not your mentor's project.*
   - (1) Background/Significance and Specific Aims (up to one page)
     - <u>provide a brief background</u> about the problem(s) to be addressed in the **PROPOSED** project
     - <u>discuss the significance of the proposed study</u>
     - <u>provide a brief synopsis</u> on how the proposed project fits into an existing program (if applicable)

- state concisely the specific aim(s) of the **PROPOSED** project (such as testing a stated hypothesis, solving a particular problem, or learning/developing a new technique)
- consider the appropriate level of ambition relative to your time frame for conducting research
- state briefly how achieving the specific aims will be significant to the short- and long-term goals in the field of study

- (2) Experimental Approach (up to 1¾ pages)
  For each specific aim, describe the experimental design, methodology, and data analyses to be used. Discuss anticipated results, potential problems, and alternate strategies. The use of subheadings is often helpful.

- (3) Time Line of the Project (up to ¼ page)
  Provide a **REASONABLE** time line for completing the **PROPOSED** project. Please include time for training to acquire necessary skills, time needed for completing each specific aim, and time for data analyses.
  *Note: The proposed project should be completed during the Summer of 2022 (May 20- July 22, 2022). Upon review (Section IV), it may be deemed acceptable that a project can be completed during other specified time periods from May 22, 2022 - May 18, 2023.

- (4) Literature Cited (not to exceed one page)

3. Assemble your application:

   All components of the application should be arranged in the following order and converted into a **SINGLE** PDF file. (please do not send applications exceeding 2MB without first contacting the Research Committee Chair)
   - Application Form (6 pages)
   - IRB application or waiver, if required
   - Mentor's Support Letter
   - Mentor's Checklist
   - Mentor's CV or Bio Sketch
     (Please include all documents for the primary mentor followed by all documents for the co-mentor if applicable.)

III. SUBMIT YOUR APPLICATION:
   A. Deadline for submission: **March 22, 2022**
   B. Applications must be submitted electronically to the Chair of the UP-KYCOM Research Committee via email (shumailahanif@upike.edu) with the mentor visibly cc'd no later than 11:59 p.m. EDT on **March 22, 2022**. Late or incomplete applications **WILL NOT** be considered for funding.

IV. REVIEW PROCESS:

All qualified applications (see section II and III) will be forwarded to the UP-KYCOM Research Committee for critical/competitive review. If the mentor listed for an application is a member of the Research Committee, they will recuse themselves from the review of applications. The Research Committee will assign ad hoc reviewers as needed. Ideally, recipients of the 2022 Summer Fellowship and their mentors will be notified via email by **April 5, 2022**.

NOTE TO APPLICANTS: 1). **Referring to the review criteria (See Appendix A) should help assist in crafting a competitive application.**
2). **To receive and maintain the award, the applicant must be in (and remain in) <mark>good academic standing</mark> during the award period.**

V. REQUIRMENTS FOR UP-KYCOM SUMMER RESEARCH FELLOWSHIP RECIPIENTS:

All award recipients are expected to conduct their research as proposed. It is the **AWARDEE's** responsibility to ensure the completion of their project during the proposed time period. In addition, all recipients are required to do the following:

A. Complete the following training modules (Cover Page of the Application).
- CITI online training modules required and other training specified by your mentor – by May 22, 2022
- Other required training identified by the mentor – completion dates are determined on an individual basis (which should be included in the Cover Page of the Application).
- CITI Registration (***www.citiprogram.org***): Click on "New Users Register Here". You will then be prompted to "Select Your Institution or Organization". Go to the first dropdown box "Participating Institutions", and affiliate yourself with University of Pikeville. Next, create your own username and password (please keep your user name and password in a secure location for future use). Complete the requested information and select the "submit" button after completion. Click the drop down button to 'Add Course/Update Learner Groups'

    If you will conduct clinical work with human subjects, select 'Students conducting no more than minimal risk research,' under Question 1 (Human Subjects Research), otherwise select 'Not at this time, Thank you.'

    If you will work in a laboratory, select 'OSHA Bloodborne Pathogens,' under Question 6 (Biosafety/Biosecurity), otherwise select 'Not at this time, Thank you.'

    For all other Question Blocks, select 'Not at this time, Thank you.'

    Be advised training may take several hours to complete depending on the type of research you are involved in. You may complete the assigned modules in multiple sittings. It is a good idea to keep your username and password in a secure location so you may refer to it later. CITI also has an automated username and password retrieval system available if you need assistance.

B. Attend two "Work in Progress" group meetings in June and July of 2022. The objective is to ensure that you are on track. Be prepared to informally discuss your progress in closed session. Exceptions may be made on an individual basis for (i) awardees conducting research off-campus and are unable to return to campus or participate in a videoconference. In this case, a written report describing the progress (1-2 pages) is required. The report must be signed by the award recipient and the external mentor. (ii) awardees who will start their projects after the date of this group meeting. In this case, fellowship recipients will present their experimental plans to the Research Committee Chair within 14 days of the beginning of the research project, and again approximately 4 weeks later.

C. Attend and present **your** research to the faculty, staff, and student body at the CIM session on or around August 16th, 2022. Exceptions <u>may</u> be made on an individual basis for awardees unable to return to campus. In this case, an activity that substitutes this workshop can be arranged instead. This **oral presentation** will be approximately 10 minutes. Be prepared for questions from the audience at the end of your presentations. Feedback regarding your presentation will be provided to improve or adjust your presentation. You may

also request additional assistance to improve your presentation if you would like to tailor your presentation in preparation for attending a meeting or conference in which you plan to present. This activity will also help you organize your materials for preparing a poster presentation.

D.   Present your completed research in a poster presentation at the 2022 UPIKE Symposium to be held in April 2023. Those who do not complete their project during the summer of 2022 will be required to present a poster about their project progress and planned research. Travel funds may be available for students who will be off campus on clinical rotations for Research Day participation.

> **Note: for all above exceptions, recipients MUST request approval from the UP-KYCOM Research Committee <u>at least one week PRIOR to each event</u>.**

VI.   FUNDING MECHANISMS:

A.   Funding includes a $3,000 stipend and up to $700 for supplies. Supply funds are ONLY available to internal mentors. Once the award notice is made, you will be asked to fill out necessary forms with the Human Resources office. The mentor should contact the Chair of the UP-KYCOM Research Committee for receiving the $700 for supplies (cannot be used for salaries and any additional supply support must come from mentor).

B.   Stipend will be distributed in three payments upon fulfillment of the specified requirements of each stage (see below). In addition, all award recipients must be in good academic standing during the entire award period.

C.   Please note to receive funds you must fill out all necessary paperwork with the University of Pikeville's Human Resource Department. One such form is the I-9 form which requires a physical copy of either your social security card or valid passport.

Payment	Requirement(s)	Time of distribution
#1 ($1,000)	Completion of selected required training ✓✓ CITI online training modules for research with human subjects or animals ✓✓ Other required training determined by the mentor (if it is required to be completed on or before May 29, 2019).	June 15, 2022*
#2 ($1,000)	Attend and participate at the "Work in Progress" meeting #1.	July 15, 2022*
#3 ($1,000)	▪ Attend and participate at the "Work In Progress" meeting #2 ▪ Participation in the workshop on "Preparing Your Presentation" which includes an oral presentation ▪ Agree to presentation of summer fellowship project at the 2019 UPIKE Research Day	August 15, 2022*

Note that these dates may be adjusted based on Payroll's schedule.

**VII.   PRESENTATION AT UP-KYCOM RESEARCH DAY AND OTHER CONFERENCES:**

As mentioned in Section V-D, all UP-KYCOM Summer Fellowship recipients are required to provide a poster presentation of their research at the UPIKE Research Day. An impartial panel of faculty members will judge and rank all posters during Research Day. All Summer Fellowship recipients will be encouraged to submit an abstract to the scientific meeting of their choice. Recipients are encouraged to apply for outside awards to defray cost of conference attendance. In addition to external awards, three travel stipends of up to $1000 will be awarded, preference will be given to presenters of accepted abstracts, then to the highest ranked (from Research Day) unaccepted abstracts. Priority will be given to current year SRP fellows. Recipients are encouraged to stay connected with their mentor/supervisor and become involved in follow-up studies as well as present at additional national or regional research conferences.

VIII.   QUESTIONS REGARDING THE UP-KYCOM SUMMER RESEARCH FELLOWSHIP:

If you have any questions regarding the application process, please feel free to contact the Chair of the UP-KYCOM Research Committee (shumailahanif@upike.edu).

APPENDIX A

UP-KYCOM Summer Research Fellowship Review Guidelines
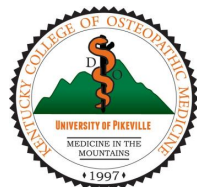
The following rubric will be used to help the UP-KYCOM Research Committee evaluate the Summer Research Fellowship applications.

The studies proposed may be self-contained or a component of a larger (longitudinal) project. What is important is that there is <u>a meaningful objective/outcome for the student </u>(for example, it would not be acceptable if a student's project is to input raw data only and not participate in the data collection or any data analyses) and that there is <u>clear evidence of mentorship </u>from the mentor (or an appropriate designee). Please use the rubric to help construct your application.

KYCOM Student Summer Research Fellowship Proposal - Evaluation Rubric

Name of Student and Project Being Reviewed:

Please complete the following sheet after reading the proposal – for each category of assessment, provide a score. Point values are in parentheses before descriptions. Please note: project elements (background and significance, research question/specific aims, experimental design/approach and anticipated results/alternative approaches) are weighted

more heavily   than other criteria.

Criteria	Exceptional	Very Good	Average	Fair	
Background and significance	(8) - Description is clear, concise, and easy to understand. Even a non-specialist can understand the purpose and/or topic that will be studied. Significance is very well stated and clear.	(6) Description is clear and easy to understand but contains some un-defined field-specific terminology that made the proposal less understandable. Significance is not well explained.	(4) Description is generally adequate but some aspects are vague and need further clarification or explanation. Significance is somewhat unclear.	(2) Description is vague and generally not easy to follow (e.g., utilizes a lot of field-specific jargon without explaining its significance). Significance is unclear.	(0 wh pr Si no all
Research goal/question and specific aims	(8) The goals/objectives/aims of the project are clearly stated and described.	(6) The goals/objectives/aims of the project are described well but would be confusing the non-specialist.	(4) The goals/objectives/aims of the project are comprehensible but need clarification.	(2 The goals/objectives/aims are insinuated but are not explicitly stated.	(0 go are sta mi
Experimental design (approach)	(8) The proposal clearly describes the methodology, design, research plan, processes, or procedures that will be used to complete the project. Based on their description, the approach is appropriate for the project and manageable.	(6) The proposal describes the methodology, design, research plan, processes, or procedures that will be used to complete the project but further explanation is necessary. Otherwise, approach seems appropriate and manageable.	(4) The proposal outlines methodology, design, research plan, processes, or procedures that will be used to complete the project, but clarification is necessary to determine appropriateness and feasibility.	(2) The proposal does not explicitly describe the methodology, design, research plan, processes, or procedures that will be used to complete the project but there are statements inferring a methodological approach.	(0 is ex de me de pla pr wi
Anticipated Results and Alternative Approaches	(8) Clearly stated and sufficient alternative strategies are proposed.	(6) Clearly stated and some alternative strategies are proposed but not may not be sufficient.	(4) Some information is provided but more details are needed.	(2) Vague and no alternative approaches are proposed.	(0 wh an ou pr
Timeline	(4) Timeline is clear-presented and shows that all project described activities will be completed within an 8-week framework.	(3) Timeline is described and shows most activities will be completed within an 8-week framework.	(2) Timeline is out-lined based on an 8-week framework but does not clearly de-scribe which activities will be completed or when.	(1) Timeline and/or activities are not presented clearly, or do not illustrate what will be completed within an 8-week framework.	(0) tim acti tim not acti

Quality of writing/ grammar/ spelling	(4) Proposal is written clearly, logically and intelligibly, with no errors in spelling or grammar.	(3) Proposal is written clearly, logically and intelligibly but have minor errors in spelling or grammar.	(2) Proposal is written logically and intelligibly but has numerous errors; or few errors but lacks clarity.	(1) Proposal is not clear. There are no logical connections and many errors.	(0) poo freq spe
Proposal is within the 3-page limit	(1) YES	(0) NO			
Proposal has clinical element(s)	(1) YES	(0) NO			
Proposal addresses osteopathic principles and/or practice	(2) YES	(1) Somewhat	(0) NO		
Student Academic performance (GPA)	(2) GPA: 4.0-3.70	(1) GPA: 3.69-3.25	(0) GPA: < 3.24		
Project is appropriate for KYCOM Summer Research Fellowship	(4) Project and mentor-student collaboration are fully appropriate and meet the provided KYCOM definitions.	(3) Project and mentor-student collaboration seem appropriate and meet the provided KYCOM definitions.	(2) Project seems appropriate and meets the provided KYCOM definitions but the mentor-student collaboration is not clearly described.	(1) Project seems appropriate and meets the provided KYCOM definitions but the mentor-student collaboration is not described.	(0) Proj appropri not mee KYCO definiti
What is your recommendation of this project for the fellowship? (check one)	Highly recommend	Recommend	Recommend with reservations (explain below)	Do not recommend	

Total Score: _____

Reviewer comments: