**MEDICAL STUDENT SCHOLARS PROGRAM IN CHILD AND ADOLESCENT HEALTH 2021-22**

**UNIVERSITY OF CINCINNATI COLLEGE OF MEDICINE**

The Medical Student Scholars Program (MSSP) in Child and Adolescent Health (Pediatrics) recognizes medical students who excel in scholastic exploration of the field of pediatrics. In conjunction with the UCCOM Pediatric Club, students recognized by the program will show how they expanded their knowledge in pediatrics, their experiences in a variety of clinical opportunities, participation in advocacy and leadership roles, and a scholarly product from scientific research. This program was founded in 2006 after a call from the Dean’s office to create special tracks to enhance student learning and career exploration beyond existing curricular offerings.

**I. General Description of the Program and Information for Students**

Students will be considered candidates if they are selected as a Medical Student Scholar and they meet the criteria listed below over 4 years of medical school. Students will maintain and then submit an education portfolio in their fourth year for final recognition as a Pediatric Scholar. Students selected will be able to list this designation on their residency applications. Scholars will be announced at medical school graduation as a student scholar.

Students will identify a research mentor and research focus during their first year of medical school. During the summer between first and second year of medical school students are expected to work full-time on their research project while completing on-line focused general research training modules. Students will continue with their research project, as able, throughout the remaining medical school training and produce a completed scholarly project before graduation. By graduation, students will gain both didactic and hands-on research training and develop expertise in a specific pediatric research topic.

**II.** **Criteria to be designated a Pediatric Scholars Student**:

1. **Scholarly Project**

Students will identify a research mentor and project in their first semester. The research should be focused on a specific pediatric-related topic, and may include any type of research activity including laboratory, clinical studies, comparative effectiveness, clinical outcomes etc. A list of contacts to assist students in identifying research mentors organized by division in the Department of Pediatrics will be provided. While it is generally expected that student research will be conducted at a Cincinnati Children’s Hospital facility, students can choose to pursue research at another institution with prior approval of the scholars program student research director.

Students must work on their scholarly project full time for a minimum of eight weeks during the summer between M1‐M2 year. Students are discouraged from taking other jobs or classes during the summer to concentrate on their research experience. By the fall of M2 students are expected to produce an abstract for The University of Cincinnati College of Medicine Annual Research and Service Symposium. Students are encouraged to continue developing their research project throughout their medical school education. Students are also expected to produce a scholarly end‐product which is suitable for dissemination or publication. This can be a poster or oral presentation at a national medical conference, a manuscript submitted for publication to a peer-reviewed medical journal, or book chapter. This scholarly end-product must be completed by April of M4 year but can be completed anytime after completing the summer project.

The Department of Pediatrics has provided funds for students for personal living expenses to conduct scientific research between years 1 and 2 and students are encouraged to work with mentors to seek other mechanisms for summer research funding support. Students will be expected to submit research proposals in conjunction with a faculty mentor to be granted a research stipend. Students who work at another institution will not be supported by internal CCHMC stipends. The Office of Student Affairs in The College of Medicine has limited funds to be able to provide support for students to present their research at national research meetings.

Student research mentor expectations include involvement in all relevant meetings and training sessions, guidance through the creation of an end‐product. Mentors are expected to meet regularly with students while they remain actively engaged in the scholarly project. While these meetings are intended to be focused on the student’s scholarly work, faculty mentors are encouraged to provide additional guidance professional life in pediatrics.

1. **Clinical Experience**

All students are required to shadow in pediatric clinical activities during their pre-clinical years. A shadow experience constitutes a four-hour session with a clinical preceptor. A sequence of shadowing experiences recommended is noted below, but there is not a requirement on the exact sessions done. Students should diversify their shadowing experiences as able.

The first-year emphasis of the clinical shadowing experience should be on “normal children and adolescents.” Emphasis on the normal physical findings and the normal clinical history of children and adolescents should be stressed. Suggested areas for shadowing in year 1 include the following:

* General Pediatrics (both CCHMC clinics and private offices)
* Adolescent Medicine
* Genetics
* Developmental Pediatrics
* Emergency Medicine
* Neonatology/Normal Newborn Nursery

As medical students will have completed more of their coursework, students will have a better understanding of disease processes. Specialty areas include but are not limited to:

* Neonatology Intensive Care (NICU)
* Gastroenterology
* Pulmonary Medicine
* Cardiology
* Nephrology
* Endocrinology
* Allergy/Immunology
* Rheumatology
* Hematology/Oncology/Bone Marrow Transplant

A list of faculty/sites at Cincinnati Children’s that are available for shadowing is maintained on the pediatric club site. Students will be responsible for contacting each preceptor to set up a mutually suitable time. Please contact the shadowing chair(s) of the club with questions on how to arrange shadowing.

Students will take an elective or Acting Internship in pediatrics at CCHMC during the fourth year. The elective can be a two- or 4-week elective. The elective does not have to count as Intensive Clinical Experience (ICE) credit for fulfilling this criterion. Away pediatric electives that qualify as Intensive Clinical Experience (ICE) credit at UCCOM can also be submitted for this requirement.

1. **Didactics**

Students are expected to attend the required lunch or evening lectures of the Pediatrics Interest Club in the pre-clinical years of medical school. Attendance will be recorded at these events.

During the summer between M1‐M2 year students are expected to complete the UCCOM Research 101 series which introduces trainees to multiple topics that are relevant to the conduct of research.

Topics include:

* Introduction to research
* Aligning expectations
* Identifying a research mentor and a research project
* Introduction to human subjects research and protections
* Submitting an Institutional Review Board (IRB) protocol at UC
* Conducting a literature search
* Effective writing for publication
* Transparency, rigor, and reproducibility in research
* Study design and data analysis basics
* Presenting your summer research
* Evaluating the literature and presenting a journal club
* Data collection instruments and REDCap

1. **Leadership** **and Service**

Pediatric MSSP students are highly encouraged to take an active role within the College of Medicine and the Cincinnati community. Students are expected to serve on College of Medicine committees (admissions, curriculum review, etc.) for at least one year, and participate in pediatric-related community service organizations or projects. A list of service projects will be maintained on the pediatric club site.

**III. Summary of Required Criteria:**

1. Complete pediatric clinical shadow activities each year as M1 and M2.
2. Attend Pediatrics Interest Club required lectures as M1 and M2.
3. Work on research project full-time for eight weeks in summer between M1‐M2 year.
4. Complete Research 101 course in summer between M1‐M2 year.
5. Present research abstract at UCCOM Annual Research and Service Symposium in fall as M2.
6. Participate in leadership and service.
7. Produce a scholarly end‐product by April of M4 year.

**IV. Designation as a Pediatric Scholar**

The candidate student’s education portfolio will be evaluated by a faculty committee from the Department of Pediatrics. In addition to the criteria listed above, students must remain in good academic standing with the College of Medicine for all 4 years of medical school. Students may be removed from scholar standing should they fall into Academic Warning or similar categories with the College of Medicine.

Students will be noted as a Scholar in the graduation program, and most residency programs note such program participation very favorably in residency applications.

**V. Curriculum Timeline by Academic Year**

***M1***

1. Identify research mentor and submit project proposal
2. Participation in Pediatrics Interest Club Lectures
3. General pediatric shadowing activities
4. Leadership and service activities

***M1-M2 Summer***

1. Full-time scholarly project (40 hr/week x 8 weeks)
2. Complete Research 101 Course

***M2***

1. Submit and present scholarly abstract at Research and Service Symposium
2. Participation in Pediatrics Interest Club Lectures
3. Specialized pediatric shadowing activities
4. Leadership and service activities
5. Work on scholarly project end-product

***M3***

1. Completion of leadership and service activities as necessary
2. Work on scholarly project end-product

***M4***

1. Complete elective or Acting Internship in pediatrics at CCHMC
2. Completion of leadership and service activities as necessary
3. Submission and/or presentation of scholarly project end-product

**VI. Contact Information**

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