



SIR Foundation Summer Medical Student Internship Program 2019

Institution Name: **Medical College of Wisconsin**

Responsible mentoring physician: **Sarah B. White, MD, MS, FSIR**

Length of proposed curriculum: The internship should be **8 weeks** and **at least 40 hours per week**.

A. Please provide a brief description of how each of the following curriculum elements will be demonstrated/taught through your program. Provide details of the instructional setting and methodology (laboratory, classroom), description of any educational resources (PowerPoint presentations, textbooks, selected readings), and assessment techniques (question and answer sessions, tests) to be used in the process of instruction:

MCW Summer Research Internship Program

The MCW summer research internship is a rigorous program that spans over the summer between the first and second year of medical school. In preparation for the summer research, the students are required to develop a clinical research proposal, submit the proposal for grant funding (if applicable) and write and submit the appropriate IRBs prior to their arrival on campus. Once the students arrive on campus, they will spend two weeks in the interventional radiology suites participating in cases and getting a flavor of the specialty. MCW has 9 faculty, 5 single plane IR suites, 3 biplane suites and 2 hybrid ORs. After their week of getting a taste of the life of an IR, the students then begin work on their research proposals. They will be required to attend all of the multidisciplinary conferences, research meetings and journal clubs throughout the summer. Their work ultimately culminates in a presentation to the department at the end of the summer.

Since the creation of this program in 2012, we have mentored 12 medical students. Of these 12 students, 9 students have had abstracts accepted for presentation at national meetings including SIR, RSNA and CIRSE. The 2 summer students from this summer, are currently preparing their abstracts for submission to SIR this fall. Additionally, of the 6 that have since graduated from medical school, 4 matched in radiology residency programs (3 DR and 1 into the integrated IR residency program).

When the student is accepted for the summer research internship program, and prior to beginning any research project, the student must complete Human Subject Research and Good Clinical Practice training through the CITI program. If the student's project requires patient consent, the student must attend Consent Process Training. This training is presented by the IRB Quality Improvement staff, the IR



Research Coordinator, and/or Dr. White. All training is kept on file with the Interventional Radiology Research Coordinator.

The student must complete a Research Assurance form which is an attestation to:

- completion of training (e.g. CITI);
- an understanding of patient identifiers and the rules surrounding protected health information (PHI); and
- an understanding of the IRB requirements for the protocol that the student will be working under.

The Research Assurance form is signed and dated by the student and the Principal Investigator (PI) of the IRB project. The student receives a copy of this form; the original is filed in the IR research files.

To demonstrate an understanding of research project development, the student must complete a research project template. The student will have an initial meeting with their faculty mentor, research coordinator and other research staff to discuss the project. If applicable, the student will meet with appropriate personnel who will assist with data set validation. At each mentor meeting, progress will be discussed, goals will be established and the next meeting will be scheduled. The goals may be time specific (e.g. every 2 weeks) or in the form of functional milestones (e.g. establish data set, perform data collection, meet with statistician, etc.), or a combination of time and milestones.

To gain an understanding of Institutional Review Board (IRB) activities, the student will attend an IRB meeting. This will be coordinated by an IRB manager.

Students are expected to present their projects to the department at the end of the summer. This is in preparation for abstract submission and presentation of work at the Medical Student Brunch at the SIR Annual Scientific Meeting (deadline usually in late September). Students will present the project at the meeting and will be FIRST author. The end goal being a manuscript for publication for which the student will be FIRST author (should they do the work to get the manuscript done).

B. Please provide a brief outline of available research topics, one of which the student will select for completion as part of the program. Projects should be of a scope appropriate for completion within the limited time frame provided.

Research topics span the entire gamut of IR procedures, to include aortic work, PVD, IO, central venous access.