

What does PIER stand for?

- The Pipeline Initiative for the Enrichment of Radiology (PIER) was established by the American College of Radiology® (ACR®) Commission for Women and Diversity to provide underrepresented minorities (URM) and female medical students an introduction to fundamental principles of diagnostic imaging and radiation oncology, as practiced in adult and pediatric academic hospitals and outpatient settings.

What are the dates of the PIER program?

- 2020 internship dates are Monday, June 1 through Thursday, July 30. PIER Scholars will attend a National Medical Association Meeting August 1–2 to present their research posters, before returning home or to their medical school.

How do I apply to be a preceptor? When can I apply?

- Apply using this [link](#). Applications are accepted year-round. Visit acr.org/PIER.

What is the overall responsibility of a preceptor? Can there be more than one per student?

- A preceptor will have the overall responsibility for the research experience and clinical exposure for the student.
- Scholars may have primary and secondary preceptors at an assigned institution.

Who is responsible for the student's housing and travel arrangements?

- ACR PIER staff will make arrangements for travel and housing for the Scholar during their internship.

What do I need to do at my institution to get started?

- Seek the department chair and residency program director's support. This will be helpful in multiple areas, such as obtaining administrative support. Meet with your institution's diversity office to identify activities for the student to participate in.
- Preceptors should have administrative support to help with logistics at the local level. For example, have most, if not all, credentialing done before the student arrives and serve as a point of contact for communication on issues, such as transportation to the hospital. When the student arrives, there should be a work area/desk or computer assigned to them.
- If you have a medical student coordinator in your department, that person can help the student integrate into the medical student lecture and reading room rotation schedule. Since this is meant to be an internship that exposes the student to radiology, it would be best if they could spend time in subspecialty reading rooms or with a clinical colleague. The intent is to provide the student with a diverse clinical radiology experience so they can see all aspects of the specialty.
- Assign a desk with computer and access to PACS.
- Designate a person to teach student access to PACS and EMR.
- Establish rules for communication with the preceptor (where, when/phone/pager, etc.)
- Meet with your institution's diversity office to see if they have any suggested activities for the student to participate in. These include any fun events outside the hospital.

How are PIER Scholars and preceptors matched? What if I don't get matched with a student?

- Students will be paired with preceptors either by subspecialty interest or geographic location, if possible.
- Selection and assignment of preceptors will be done by commission members involved in the PIER Program.
- Just because you aren't matched this year doesn't mean you won't be matched in the future.

What are the major components of the curriculum?

- Didactic lectures, hands-on clinical participation under supervision, radiology shadowing experiences and research in the radiological sciences are major components of the internship.
- If available, interactive workshops and lectures highlighting professionalism, radiology career development, and interpersonal and communicative skills will facilitate acquiring skill sets necessary in becoming a successful and valued clinical radiologist, scientist and leader.

How/when do we decide on a research project?

- Initiate Institutional Review Board (IRB) compliance training as soon as possible. Student will need an ID and access to the network prior to this training.
- Schedule focused phone meetings with your intern at least 1–2 months prior to their arrival. If there is an ongoing project that you plan on using, provide reading material. If the intern is starting a new project, use the first meeting to establish areas of interest and brainstorm research projects, and the second meeting to finalize plans and complete IRB. The study should be designed prior to student arrival. Ideally, the IRB would be submitted 1½ –2 months prior to the start date.
- Enlist department biostatistician early on for help with study design and data analysis.
- Have a schedule for deliverables for the research project so that the project's abstract, data acquisition and analysis, and poster printing can be done on time.
- Allot dedicated time for student to work on their research project. Research poster must be printed before final week of internship.

What types of methods should be used to introduce the basics?

- Provide hands-on opportunities (where appropriate) under direct supervision of the attending radiologist or appropriate instructor, e.g., performance of ultrasound scan.
- Provide opportunities to participate in and learn from interdisciplinary discussions.
- Encourage attendance at daily radiology resident teaching conferences and in-house subspecialty conferences.
- Work through imaging algorithms specific for common clinical conditions with pathologic and laboratory integration.
- Complete a total number of modules designed to reinforce medical knowledge and facilitate an understanding of the connection between basic science and clinical information through imaging.
- Complete an introductory 1-hour module in medical physics.
- Provide a recommended reading list for introduction to medical imaging and medical physics.
- Provide opportunities to learn about radiology career development, including meeting with the radiology departmental chair.
- Review clinically relevant surgical anatomy as it pertains to imaging studies.
- Depending on the service, scholar involvement may include participation in daily rounds, working up patients for procedures and case presentations.
- Connect basic science and clinical information through imaging to provide relevance and context for building a broader learning base and skill set improvement.
- Provide foundation to basic principles of diagnostic imaging utilized in a hospital and outpatient setting for adult and pediatric patients.

- Provide shadowing opportunities with attending radiologists for PIER scholars in all of the radiology subspecialties to ensure exposure to variety of cases, and to medical and treatment management options and algorithms.

What are some examples of didactic learning that can be utilized?

- Recommended reading list.
- Complete series of online courses/modules, as outlined above.
- Radiology resident teaching conferences.
- 15-minute oral presentation on radiology imaging topic of scholar's choice with feedback.
- Completion of hands-on interventional simulation workshop.

Tips for making sure your PIER Scholar gets the most out of their internship experience:

- Create an electronic calendar that includes lectures, reading room schedules and research deadlines, so that you both can access and edit if needed.
- Provide a schedule to optimize the clinical experience so students can see all aspects of radiology or radiation oncology. This includes scheduling time in the various reading rooms. Additionally, opportunities for observation in other clinical areas may be useful.
- Bring the student to an ACR chapter meeting (if one takes place during internship) to introduce them to colleagues in other practice models.
- Provide didactic lectures for the student on basic radiology and basics of research, if possible. The student can be integrated into the department medical student lecture series or attend the introduction lectures for first-year radiology residents. Additionally, students should attend all department conferences or grand rounds.

Evaluations:

- Mid-term and final performance evaluations are to be completed by the preceptor with appropriate feedback.