



SIR Foundation Summer Medical Student Internship Program

Proposal:

Institution Name: Stanford Health Care and Palo Alto VA Medical Center

Responsible mentoring physician: Amanda Rigas MD, Alexander Vezeridis, MD, PhD

Length of proposed curriculum: 8 weeks, 40 hours/week.

A. Please provide a brief description of how each of the following curriculum elements will be demonstrated/taught through your program.

Interventional Radiology at Stanford Health Care and the VA Palo Alto Medical Center have a strong tradition of and excellent resources for translational research in several domains, with excellence in molecular imaging, engineering, device design, informatics, artificial intelligence, and simulation-based education. Medical students will be encouraged to select one of several available project areas depending on their skills, background, and interests. The student will be mentored by two IR faculty in taking their interest to systematically answer a clinically inspired question in these (or other) research areas using scientific methodology. This guidance will include applied aspects of experimental design, statistics, validation techniques, and assay development. Responsible conduct of research include rigor, data collection, data analysis, and ethical conduct will be curriculum elements. The student's research will be tailored towards preparing an abstract for oral presentation at SIR, and preparing a manuscript for JVIR, within the 8-week time frame.

Mandatory elements:

Research projects within molecular imaging, engineering, device design, informatics/data science, artificial intelligence, and simulation-based education are available for medical student participation.

B. Please provide a brief outline of available research topics, one of which the student will select for completion as part of the program.

Interventional Radiology at Stanford Health Care and the VA Palo Alto Medical Center have world-class resources available for translational research. We have a small animal imaging core facility, a large animal angiography suite, chemistry facilities, engineering facilities, wet bench space, desk space for students, and secure computing resources that will allow the successful completion of the student's research project. The instructional setting will be applied – in other words, the student will learn about research methodology and data analysis while completing a project – with supplemental lectures and instruction on responsible conduct of research (including CITI certification).