UCSF Pulmonary and Critical Care Medicine Fellowship

Research Experience

Goals and Objectives

The UCSF Pulmonary and Critical Care Medicine fellowship is designed to provide each fellow with 18 months of protected time to conduct basic science, translational or clinical research under the supervision of a faculty mentor that the fellow selects. Clinical responsibilities during the research time are minimized and are currently limited to the one-half day per week outpatient continuity clinic and an additional ambulatory experience of one half-day per week for six months as required by the ACGME.

The structure of the fellow’s research experience will vary according to the individual fellow’s research interests. The fellow, in conjunction with their research mentor, is responsible for designing a specific research project. This should include a written set of specific goals and a time-line for completion of the project within the given amount of research time available to the fellow. The fellow and their mentor should periodically review these goals and the fellow’s progress. Research methodology and interpretation will be learned first hand through the performance of experimental studies. These experiences will be supplemented by attendance at a variety of clinical and research conferences that will assist the fellow in understanding the broader implications of their research findings. In addition, fellows may elect to participate in structured educational experiences to gain additional skills. It is important for the fellows to become involved in and understand all the facets of academic research so they will be prepared to pursue a career in academic medicine.

Evidence of completion of a research project will be presentation of an abstract at a regional or national meeting and authorship of a publication stemming from the research. The fellow will also be required to present their findings at the Pulmonary Critical Care Research conference once per year. In addition to learning to give scientific presentations and to write a scientific publication, fellows should also become familiar with the process of writing research grants. All fellows will be expected to write and submit a grant proposal by the completion of their research experience. A formal evaluation of the research progress of the fellow will be made twice per year by an outside committee made up of faculty researchers who are not involved in the given fellow’s project.
Objectives of Research Experience:

First Year of Fellowship
By the completion of the first year of fellowship, each fellow will have:

1. Selected a research mentor in an area of research relevant to Pulmonary or Critical Care medicine. Each fellow is assigned a career mentor at the beginning of fellowship. The career mentor and the Program Director will guide the fellow in their selection of an appropriate Research Mentor.
2. Initiated the development of a hypothesis and research protocol, and started to prepare for the research experience by conducting background research and reading.
3. Selected the members of a Career Advisory Committee to oversee the research project development and completion of their fellowship training. This Career Advisory Committee is expected to meet at 1-2 times per year in the second and third years of fellowship to review the progress of the research project and the fellow’s overall career planning and training.

Second Year of Fellowship
By the completion of the second year of fellowship, each fellow will have:

1. Clarified the hypothesis and research methods of his/her research project.
2. Prepared a thorough background research and summary of the current state of knowledge relating to their research project.
3. Developed skills in learning to design, conduct and interpret research studies including research methodology.
4. For fellows conducting clinical research, by the completion of their second year of fellowship, fellows will have obtained approval from the Committee on Human Research (CHR) for their research project and will conduct their research project incorporating their knowledge of patient safety in studies involving research subjects and the role of the data safety monitoring board.

Third Year of Fellowship
By the completion of the third year of fellowship, the fellow will have:

1. Submitted an abstract to a regional and/ or national meeting.
2. Presented the research project formally at the weekly tri-hospital Pulmonary Division research conference, and developed the skills needed to present the research at regional, national, and international conferences.
3. Written and submitted a grant proposal.
4. Developed the skills necessary to prepare and submit a formal manuscript to a peer reviewed journal.
5. Demonstrated the ability to conduct rigorous, ethical, basic science, translational or clinical research.
6. Learned to work with a multidisciplinary team to perform research (ie. With technicians, study coordinators, statisticians, ethicists)