

Paths to Research: From FE-R to MD

By Rachel Evans (neuroscience and religious studies majors, chemistry minor)

Coming in to college, I had no research experience, but I knew I wanted to try it. I was interested in research primarily because I knew nothing about it other than what I saw on TV or heard about from older students. I also knew that research was required for my intended neuroscience major and would be necessary to be a competitive applicant for medical school.

As I read about all of the neuroscience research labs at Pitt, and listened to horror stories about students sending dozens of emails only to hear nothing back from the labs, I became overwhelmed. As a first-year student with no research experience, this approach was too daunting.



FE-R: Connecting to Research Opportunities and Like-minded Students

Then I attended a First Experiences in Research (FE-R) info session. What I heard there made me feel confident in my ability to learn about research. I was drawn to the program because it allowed me to work on a research project throughout an entire term, and present it in a conference-style environment. And the fact that I would get to work alongside peer research mentors who *wanted* to participate and help inexperienced students like me solidified my decision to apply.

In the spring term of my first year, I was placed in a psychology/neuroscience lab. I was thrilled: I hoped to major in Neuroscience and I really enjoyed the AP Psychology class I took in high school. I joined the lab with another FE-R student, and we quickly got to work: We weren't just observing how research is conducted; We were analyzing data for a mini-project that we designed ourselves with the help of a peer mentor, and we were expected to present our findings at the end of the term.

At first, I was a bit discouraged because I felt like I knew nothing compared to the other students, and especially staff members, in the lab. Research often focuses on a very specific topic, and I had no previous academic experience with any of the topics that my lab focused on! I was totally overwhelmed with how intense the research was, and it took me a bit of time to learn the terminology and methodology specific to the lab in which I was working. I certainly gained an appreciation for the detail-oriented and dedicated staff in the lab and the hard work that goes into each research project.

My partner and I worked hard to make sure that we understood our mini-project and practiced many times to ensure that we could present it. At the presentation—the culmination of the whole term of research—I realized that I knew a lot more than I had given myself credit for, and I felt a lot more confident in my abilities! Not many first-year students have an opportunity to design and present their own research project, and I was very excited and grateful for the opportunity!

My mentor and I worked well together and she asked if I would be willing to return to the lab. I rejoined the lab in the spring of my sophomore year and I have been with that lab ever since. Each term, I learn more in that lab about our specific topics of interest—risk for depression and child development—than I ever could have in a class.

Broadening Research to the Intersection of Medicine and Religion

As my interests expanded and grew, so did my research. I had discovered a passion for religious studies and added it as a second major. For my capstone project in religious studies, I knew that I wanted to focus on the intersection of religion and medicine, but I wasn't totally sure how. After talking with my capstone advisor and another religious studies professor (who is also a practicing physician), I decided to write about how religion has influenced and continues to influence patient care in two historically faith-based hospitals, UPMC Mercy (founded by Catholic nuns) and UPMC Montefiore (founded by Pittsburgh's Jewish community).

I felt like a first-year student all over again, trying to navigate unfamiliar research methods, this time in the humanities. I had never undertaken humanities research before, so it was daunting at first to try to learn an entirely new research methodology, collect data, and write a paper in only one term. I was challenged to step outside of my comfort zone, learn new methodologies of research, and discover new resources.

For the research itself, I examined boxes upon boxes of historical documents from the hospital archives, and interviewed individuals who were involved with each hospital's merger with the UPMC system. I was interested not only in the history of these hospitals and why they were or were not able to remain closely connected to their respective religious communities, but also in the ways that these religious connections impact the ways that hospitals care for patients.

By the end of the project, I learned how to conduct and present humanities research, which is important, but I also learned about other resources both on campus and in the city of Pittsburgh that I never would have known about had I not undertaken this project. Humanities research requires different skills than research in the natural or social sciences, and I believe my experience was an integral component of a well-rounded education.

Religious Studies Research as a Path to Medical School

The biggest takeaway from this research for me as a future physician is that there are many ways to approach patient care, and the "standard" way is not always the best way.

The biggest benefit of this research to me as a future applicant to medical school is that medical schools want to admit students who are well-rounded, curious, and committed to lifelong learning. My experiences with research at Pitt have helped shape me into that person.

Both the religious studies and neuroscience research helped to broaden and deepen my educational experiences beyond what any class could ever teach me: I learned about the research methods of both disciplines. I was exposed to the effects of research and gained a new appreciation for the effort that goes into seemingly small discoveries. I learned how to talk about my research in ways that even someone completely unfamiliar with my field of study can understand, a skill that will translate well into my career as a physician. I seek out academic situations that are foreign to me, and I no longer dread reading a research paper outside of my very specific fields of study. I know how to approach situations that are unfamiliar to me. And I understand that researchers fail many times before their experiments succeed and their papers are published.

Research absolutely helped me check the boxes for graduation and medical school requirements, and provided me with skills and experiences that I never would have been exposed to otherwise! I hope to continue to research the intersection of medicine and religion in medical school and throughout my career as a physician, because there is always more to learn and patient care can always be improved.