AIMBE's FDA Scholars Program

Advancing innovation and discovery from the lab to the marketplace.

Spotlight on the 2014-2015 AIMBE Scholars

Dr. Maria Murray

As I reflect back on my time as an AIMBE Scholar, I am amazed at how much I have learned over the past year. As most who are unfamiliar with the FDA, I had little idea of what they did other than "regulate medical products" and "the barrier to getting products to market". I did not know the differences between the different centers within the agency, and did not know what review entailed. But that has changed very quickly during my short time here.

During my time at the FDA, I have worked on a variety of different teams and projects. I found that a lot of my scientific skills were transferable to the policy world. The purpose of most of the projects I am working on is data. I am collecting data on the programs that the Center for Devices and Radiological Health (CDRH) is investing in, and seeing how effective the programs are. Really, it reminds me of an experiment. I have a hypothesis on how a particular program is working, and then I obtain the data in order to draw conclusions to determine if my hypothesis is correct.

One of the projects I have been working on is to create metrics to determine the impact of regulatory science research at the FDA. I have been analyzing the research project on the Virtual Family (a computational model that models RF heating in humans) by searching for uses of it in the submissions database in the FDA. I have shown that the Virtual Family has been cited in 124 submissions. This data demonstrates that the model is being used by current sponsors, and proves the hypothesis that the regulatory science research being done at CDRH is valuable to sponsors when they are crafting their submissions. We can further break that down into which submission types and sponsor types find this information the most useful, so that we can design research programs in the future that can be the most beneficial to sponsors.

The foundation of good policy is good data, and my experience as a researcher has given me the skills to use data to create an argument and critically evaluate programs, which is useful in the policy world and beyond.

As far as my career goals, I have spent a lot of time thinking about where to go next. A year ago, when I was still in my PhD lab, things looked very bleak. Funding was running out, and my very highly skilled friends and I were struggling to find jobs. I was (and still am) incredibly lucky to be selected as an AIMBE Scholar. It has opened many doors and demonstrated that my skills are transferable and useful in the real world. I have accepted a job for next year with the Life Science Technology Practice at Deloitte Consulting where I will be developing technology solutions for life sciences clients. After spending so long mining the submissions database for the data that CDRH needs in order to make operations more efficient, I am excited to develop systems that help clients get the information they need to make decisions. Post-Deloitte, I have become really interested in In Vitro Diagnostics, and would like to pursue a job in that field in the future. The idea of figuring out what is wrong with a person in order to assist in fixing the problem is a really powerful idea and can help reduce the pain and cost of unnecessary medical treatment. I will carry this idea forward in career.

Overall, I am very thankful for the experience that the AIMBE Scholarship has given to me. It has given me the opportunity to learn more about the FDA in general, and CDRH and the medical device industry in particular. It has enhanced my career prospects and I am very excited to see where my career will go going forward.