

## Career Development Panel Summary – Careers in Public Health

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The FelCom Career Development seminar for November explored career paths for PhDs in the field of public health. This panel featured two speakers who have taken different approaches to pursuing a successful career in public health.

The first speaker, Dr. Linda Kupfer, is a Senior Scientist in the Division of International Science Policy at the Planning and Evaluation Center for Global Health Studies of the Fogarty International Center. This is the sole branch of the National Institutes of Health devoted primarily to public health causes. Dr. Kupfer obtained her bachelor's from Cornell University and went on to get a PhD in pharmacology at Columbia University. During this period, she realized she wanted a job that gave her a "broader look" than what she could achieve on her individual projects at the bench. It was at this point that she began to look into public policy, which led her to apply for an AAAS fellowship at the State Department. Here, she learned how to negotiate scientific policies with different countries in order to address the broad research goals of different fields. These are termed "bilateral science agreements" and include connecting scientists from the United States with scientists in China in order to further common research goals.

After this, Dr. Kupfer moved to a job at the National Oceanic and Atmospheric Administration (NOAA), obtained via a White House connection she had made during her previous stint with the State Department. Here she held the position of Director of Marine Biotechnology at the National Sea Grant College Program, where she further developed her public policy skills by promoting specific research goals of NOAA through international collaborations. During this period, she learned how grant-making, peer review, and money allocation can be strategically leveraged to move an entire scientific field forward in accordance with the goals of the agency.

Currently, Dr. Kupfer works at the Fogarty International Center, where she leads a project aimed at bringing non-communicable diseases, such as cardiovascular disease, cancer, and mental health into the PEPFAR platform for managing HIV care in developing countries. In this capacity, Dr. Kupfer also served as a Senior Policy Advisor for the Office of the Global AIDS Coordinator. These roles complement her research interests in implementation science and program evaluation.

Dr. Kupfer's typical day is not predictable, but generally involves work on multiple long-term projects. Right away she typically answers 10-15 emails followed by 2-3 meetings and conference calls throughout the day. When she is lucky, she gets time to catch up on the literature and write articles. Like many science jobs, her hours are "as long as it takes to get the work done." Her favorite part of her job is the fact that she gets to work on many different projects so she never feels bored or pigeonholed in her work; however, she does admit that the minutiae of scheduling meetings can get tedious. She typically travels twice a year, though when she worked at the State Department her travel was much more extensive. One thing Dr. Kupfer mentioned which is likely somewhat unique to the field of science policy, is that her work focus has changed with each new presidential administration and the different priorities they set forth.

The second speaker, Dr. Christin Hanigan, completed her PhD and postdoctoral fellowship at Johns Hopkins School of Medicine, studying cancer epigenetics. Her rationale for getting into science policy after her research career was wanting to use her scientific training on a larger scale to affect human

health. In the last year, she has started her current science policy position as a Senior Specialist for Advanced Molecular Detection at the Association of Public Health Laboratories in Silver Spring, MD. Here, she works closely with the CDC and different state and local public health agencies around the country where she helps bring labs up to speed on the use of next generation sequencing (NGS) technology, which is increasingly relied upon for detection of human diseases. She acts as a liaison between the Advanced Molecular Detection unit and the various public health labs to see what their current needs are with regards to NGS technology. It has been a swift learning experience. Already, she has had to learn a lot about the Zika virus, a rapidly emerging public health threat that burst on the scene right as she began her new position. Dr. Hanigan notes that science “looks different” at public health labs compared to academia, with a particular emphasis on practicality, speed, and cost-effectiveness, given the nature of responding to public health threats. Dr. Hanigan noted that she had no prior public health experience, but her strong skills in molecular biology and her NGS experience were essential for landing her job.

At her current position, a typical work week is 40 hours, 8AM-4PM, with the option of working from home once a week, which she remarks is extremely different than the erratic hours of a typical post-doc. Dr. Hanigan travels domestically approximately 6-10 times per year, mostly to the CDC in Atlanta along with various state public health labs. She loves the fact that her career allows her to be involved in exciting scientific issues without many of the frustrations inherent to the typical bench researcher. There is always something new and different for her to learn. Some of the less fun parts of her job include dealing with the bureaucracy and sometimes restrictive travel rules.

Both Dr. Kupfer and Dr. Hanigan have exciting, but very different career trajectories with the common theme of addressing pressing public health challenges either from a broad think tank perspective as in the case with Dr. Kupfer to a technical “in the trenches” perspective for Dr. Hanigan. Despite these differences, both scientists expressed genuine passion for improving public health through their varied contributions. They also emphasized that their scientific training has kept them curious and persistent, both indispensable attributes for their continued success.

As a current hiring manager, Dr. Kupfer highlighted the importance of doing extensive research on any organization before applying, including understanding the goals of the institute and the demands of the position. This includes speaking with as many people as possible in order to determine how you specifically would be an asset to the organization. She also recommended investigating if the position will meet your needs and asking about the availability of mentors for early career public health scientists. She stressed the importance of the informational interview, where you can ask about various projects you are interested in and how the organization could use the skills you possess and the potential for learning new skills. For current post-docs, the possibility of going on a detail is a major source of early experience, but this requires convincing your current mentor that you can finish your research job.

### **Key Takeaways:**

1. Both speakers emphasized the importance of soft skills including administrative skills, managing deadlines, teamwork, and conflict resolution.
2. Both agree that networking before and once on the job is essential.
3. Finally, neither speaker has an MPH, but they recognized that, like a PhD, having one can help open doors to new opportunities. Specific training or educational experiences may help someone new to the field of public health understand the language and make the transition away from the bench easier.