

Career Development Seminar Summary Overview: Career Discussion on Science Education and Outreach

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This month's career panel focuses on careers in science education and outreach. We bring you a panel of distinguished professionals who are bridging the gap between the scientific and non-scientific audience.

Dr. Geoff Hunt is currently the Manager of Public Outreach for the American Society for Biochemistry and Molecular Biology (ASBMB). Dr. Hunt's role is to facilitate ASBMB member participation in activities and programs that engage those outside the scientific community, such as science cafes and science festivals. Dr. Hunt began working at ASBMB in 2010 as a Science Policy Fellow, working in the Office of Public Affairs, before transitioning to his current position at the beginning of 2012. Dr. Hunt graduated *magna cum laude* from Cornell University with a degree in biochemistry, and received his PhD from Princeton University.

While in graduate school, Dr. Hunt realized that although he enjoyed the intellectual challenges of science, the principal investigator career path was not a good fit for him. In an attempt to explore other career options, he enrolled in a science policy class and was surprised to see that he was the only scientist in the room. This class sparked a deep interest in the balance between science and policy. Instead of a post-doctoral fellowship, he sought out a policy fellowship at ASBMB. This experience provided a wide variety of outreach through members of the organization as well as non-scientists. At the end of his fellowship, there was an opening at ASBMB and he has continued to work there in the public outreach office.

Dr. Carla Easter is the chief for the Education and Community Involvement Branch of the National Human Genome Research Institute (NHGRI). She played a major role in the development of the NHGRI/Smithsonian exhibition "Genome: Unlocking Life's Code," and serves K-12 and university communities as an advisor and speaker on genomic science and careers. Prior to her time in the DC area, she served as coordinator for the NASA Summer High School Apprenticeship Research Plus Program and project associate for the Quality Education for Minorities Network. She also was the director of outreach for Washington University School of Medicine's Genome Sequencing Center. Dr. Easter earned her bachelor's degree in Microbiology from the University of California, Los Angeles and her doctoral in Biology with an emphasis on Molecular Genetics from the University of California, San Diego.

During her post-doctoral fellowship at Washington University in St. Louis, Dr. Easter discovered that she has a passion for quality science education for all children, especially minorities and underserved communities. She did a second post-doctoral fellowship in the Education Department at Washington University, allowing her to learn the culture and common issues of high school education. After gaining the experience of working in education to address the needs of the community, she next applied her skills to a broader setting. She accomplished this by being an education specialist at NHGRI and working on the Smithsonian Genome exhibit. Dr. Easter still feels close to science since she manages the working group on community engagements, which brings people together to influence research.

Dr. Gaelle Kolb is the Grants Development Specialist in the Neuroscience and Cognitive Science (NACS) program in the College of Behavioral and Social Sciences at University of Maryland. There, she supports faculty and students in developing and submitting grant proposals in addition to implementing a new career development program for NACS trainees. While at her previous position at Johns Hopkins, Dr. Kolb was the Assistant Director and Interim Director of the Professional Development Office where she expanded the professional and career development of the trainees to better reflect their diverse needs. Dr. Kolb was the Scientific Training Specialist in the Office of Training and Diversity at NIAID. There, she advised post-doctoral fellows and developed numerous workshops on NIH Career Transition Awards and European funding opportunities. Dr. Kolb received her Master of Science and her doctorate in Biology-Health from the University Victor Segalen in Bordeaux, France.

After Dr. Kolb's post-doctoral fellowship at the NIH, she knew that she wanted to stay in the US, instead of going back to her native France. She volunteered with FELCOM, providing her a networking platform to explore her career options. After her fellowship, she applied her love of grant writing by working with NIAID to develop a grant writing workshop for fellows. She then took a position at Johns Hopkins, helping both fellows and graduate students with their grants and careers. She found her current position at University of Maryland by working with the department to fit a job description to her particular skill set. Her most important job is finding funding opportunities, so she carefully reads prospective grants, paying close attention to the details many gloss over. Dr. Kolb strongly feels that her work makes a difference, and keeps her close to the science through grants.

Dr. Leigh Miles Jackson is a senior program officer at the National Academies of Sciences, Engineering, and Medicine. Currently, she works in the Division on Policy and Global Affairs with the Board on Higher Education and Workforce. Previously, she worked in the Board on Population Health and Public Health Practice and directed the report, *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. She also worked with the Board on Children, Youth, and Families and directed the report, *Advancing the Power of Economic Evidence to Inform Investments in Children, Youth, and Families*. Prior to joining the National Academies, she

was a research fellow at Vanderbilt University, where she investigated the role of chronic sleep disturbance and specific epigenetic modifications on the health outcomes of adolescents. She has a bachelor's degree in chemistry from Wake Forest University and a Ph.D. in molecular and systems pharmacology from Emory University.

Dr. Jackson knew she didn't like writing grants, but loved science, describing her favorite part of the week as lab meeting and trouble-shooting. After her PhD, she went on to a post-doctoral fellowship, but felt that she wanted to make a greater impact through a more translational approach. At a conference, she met with a program officer from the National Academy. She was intrigued by a career that guides policy through consulting experts about science. The work was very different from her fellowship, requiring her to identify a cause, and then find the experts to discuss the best way to address the problem. Dr. Jackson's time is spent researching experts for her projects, meetings and phone calls. This career provides her the problem solving challenges she loved from the lab, while directly affecting change in science.

Common Themes:

- Science education and outreach careers allow for you to maintain a passion for a breadth of topics while serving the scientific and greater community, without the added pressure of running a research lab.
- If you are truly dedicated to science education, getting some sort of degree or **experience** will help you get into the field. You can find these experiences by volunteering at local high schools, museums, or teaching at any level.
- Leadership skills are required in any of these positions, and the panelists felt that you must seek these experiences out away from the bench. The panel is unanimous in recommending volunteering as a way to network and gain leadership experience.
- This career field is growing, but there are few current positions. Again, the panel suggests networking as key to finding their positions.
- The panel had the following tips for interviewing and for entering non-laboratory work:
 - Try to arrive early for your interview to observe the culture of the office.
 - Ask employees, who are not interviewing you, if they are happy in that particular office environment.
 - Multiple panelists mentioned listening to their colleagues as a skill they acquired after leaving the bench.
 - Informational interviews are a great networking opportunity, as well as learning about the office culture and what these positions entail.

Commented [MS(1): Like education-specific experience/degree, like a MEd or something? Can you clarify a bit or give more definite examples?