

A variety of biomedical careers panel discussion

Summary by Scott Connelly, Ph.D. student

In addition to robust research-specific training, various opportunities enable professional development of Boston University (BU) Ph.D. graduate students and post-doctoral fellows to equip them with a multitude of translational skills including communication, management, critical thinking, and problem-solving. This diverse skillset empowers the BU PhD trainees to excel in positions within a variety of sectors, including research and non-research environments. Moreover, exploring various career options is encouraged, particularly for those not certain of their future career paths. Hosted by BU's Broadening Experiences in Scientific Training (BEST), this panel, held on April 12, 2023, was the third of a four-part series which invited current BU trainees to explore major industries hiring biomedical science Ph.Ds.

This Zoom session hosted panelists with a variety of backgrounds and careers including Dr. Claudia Hofmann, Director Intellectual Property at Synlogic; Dr. Elyse Kozlowski, Special Assistant to the Office of the Chief Medical and Scientific Officer at the National Institutes of Health (NIH) All of Us Research Program; Dr. Douglas Macdonald, Director of Research Operations and Scientific Alliances at the CHDI Foundation; and Dr. Angel Rubio, Scientist at ImmunityBio, Inc. Dr. Barbara Schreiber, Associate Professor of Biochemistry at Chobanian & Avedisian School of Medicine, moderated the discussion.

Firstly, the panelists were asked about their career trajectories to date. Dr. Hofmann earned her Ph.D. in Biochemistry in 2003 and continued on as a post-doctoral fellow. While at BU, she took advantage of an internship at the BU Technology Development Office. She then spent a number of years in scientific writing, editing and marketing communications in industry. She secured a position as a patent agent in 2014 and moved to Synlogic in 2016, where she's moved up the ranks. Dr. Hofmann informed the audience that she has been accepted to law school and will complete the JD part time. With an interest in government work, Dr. Kozlowski earned her Ph.D. in Genetics & Genomics in 2016 and went on to a job as a consultant for Deloitte before being recruited as Program Manager for the All of Us Research Program. She then earned a Senior Scientist job at Dana-Farber Cancer Institute before being recruited back to the NIH in her current role. Dr. Macdonald earned his Ph.D. in the Department of Pharmacology & Experimental Therapeutics in 1998 and he's had many interesting positions since, including a post-doctoral fellowship at Schering-Plough Research Institute, Senior Research Scientist at Aventis Pharmaceuticals, and his current role with the CHDI Foundation. In addition, Dr. Macdonald is a lecturer at the University of Southern California and he serves on the Chobanian & Avedisian School of Medicine Dean's Advisory Board. Since graduation from the Department of Pharmacology & Experimental Therapeutics in 2020, Dr. Rubio has worked for ImmunityBio, Inc., both as a scientific writer in addition to his current role.

Next, the panelists were asked what skills are important for success in their respective careers. For a trainee interested in careers beyond the bench, Dr. Kozlowski recommended informational interviewing to learn more about the skills valued in a particular role of interest. Furthermore, Dr. Kozlowski described a successful employee in science policy as one who is comfortable with somewhat ambiguous directions, not afraid to make mistakes, and can thrive in novel areas of research. Dr. Hofmann gave general advice for job searching in the life sciences, emphasizing networking, including staying connected with BU graduates, being confident in one's knowledge, and considering applying for positions that are tangential to one's goals. Dr. Macdonald added that it is important to fill gaps in skills you may have not developed during your doctoral training. He reflected on his own post-doc

position which he felt complemented his doctoral training and enabled him to develop into a well-rounded scientist. Lastly, Dr. Rubio thought back on his own transition from scientific writer to bench scientist and advised students to learn to adapt to novel positions and changing demands within a company.

Similarly, the panelists were asked what attributes they value in hiring a new employee. Despite the variance in the panelists' jobs, most are looking out for those with similar skills. Dr. Macdonald emphasized the ability to collaborate with colleagues, strong communication skills, and a proven track record as desired traits in the non-profit sector. Dr. Hofmann echoed this by highlighting competency in collaboration and teamwork, adding leadership skills as a highly desired quality within patent law. Dr. Kozlowski agreed by underscoring the salience of communication skills and she recommended that students consider starting a blog, website, or other form of publication that can attest to their writing abilities. Dr. Rubio reinforced what others in the panel contributed, adding that a great way to develop scientific communication skills is to apply for the IMPACT program at MIT that helps scientists with advanced degrees communicate their results and understand the broader impact of their research.

Lastly, the panelists were asked about the demands of their jobs and how they manage their work-life balance. Dr. Rubio jumped in by disclosing he does not endure the same long hours he did in graduate school, but there is always difficulty maintaining work-life balance with young children around the home. To prevent work from creeping into her home life, Dr. Kozlowski marks off protected time on her calendar. She also recognizes that workplace demands vary widely by position and company cultures, and therefore recommends inquiring about work-life balance during informational interviews in the job search process. Dr. Macdonald agreed with Dr. Kozlowski, confessing that he also blocks out time for personal life and now books vacations a year in advance so he can assuage the sensation of always feeling too busy to take a break.

It was an honor to have all these alumni join us for our career panel discussion. BU's BEST and all the attendees would like to thank the panel for helping to advance the careers of young scientists at BU. If you found this panel summary interesting, we invite you to check out the other three panel summaries from 2023 and to keep a lookout for future panels and other opportunities hosted by BU's BEST.