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Non-traditional Career Paths for PhD Analytical Chemists

I did not pursue a traditional academic research career and have not set foot inside a research laboratory in several years. I often field questions such as “why did you bother to get a PhD in analytical chemistry if you are not actually ‘doing’ analytical chemistry?”. There is a misconception that PhD analytical chemists seek alternative careers because faculty positions are scarce or because they hated the laboratory during grad school. However, for the majority of the PhD analytical chemists in non- traditional careers that I have met, the real truth is that they found a way to do what they enjoyed; utilizing the same analytical skills they learned as a grad student. I fit into this group.

Mid-way through my PhD program, I knew that I was going to pursue a postdoctoral fellowship after graduation. A standard academic postdoc position seemed like the obvious option at the time because it was familiar, and since starting university, I had only ever been exposed to academic research. However, when I attended the Canadian Society for Chemistry conference in the final year of my PhD program and had the opportunity to network with R&D researchers from pharmaceutical companies, I realized that an industrial postdoctoral fellowship may be an alternate path to consider. When I looked into how to secure an industrial postdoctoral fellowship, I began to encounter the fairly widespread viewpoint that, in chemistry, a career path outside of academia was considered non-traditional and there was not a plethora of resources available to help me through the process. I did my own homework to understand available sources of funding and industrial companies that may be interested in hiring a new PhD graduate as a postdoctoral fellow. I secured an academic postdoctoral fellowship at the University of Toronto and also an industrial postdoctoral fellowship at Eli Lilly Canada. I felt fortunate to have both options available to me. In the end, I decided to pursue the industrial position, well aware of the fact that if I did decide on a future career in academia, it would be more challenging to be considered for these positions down the road. It was the right choice for me at the time, and I wanted to see what it was like to work in a corporate research environment after all my years in a university setting.

After 1.5 years as an industrial postdoctoral fellow at Eli Lilly Canada, I received a job offer for a full time Research Scientist position in the Lilly Analytical Research Laboratory. I never looked back and spent the next 6.5 years in the pharmaceutical industry. In industry, an analytical scientist initially earns credibility on the bench and can then be quickly escalated to higher positions. My role at Lilly evolved from planning and executing experiments to oversight of drug development projects, strategy development and implementation, and people management. In 2010, the Lilly Analytical Research Laboratory suffered the fate of many other global pharmaceutical R&D groups, and the laboratory where I worked was shut down, leaving me left to consider my career options. During the 8 years in total that I spent in the pharmaceutical environment, I learned the type of work that satisfied me and that I found most enjoyable. And it was not the chemistry aspect of my position. Rather, I excelled at project management, relationship building, cross-functional communication, and implementation of tools to ensure projects were completed efficiently and promptly. In addition, I had acquired all kinds of knowledge and skills that the 'real world' highly values and that could immediately apply to another field. Even though many of my now former Lilly colleagues focused on finding a similar position in another company, I decided to take the opportunity to find a position that fit with my strengths and that could use my transferrable skills.

I landed a program management role that suited me well, and I began working at the Ontario Institute for Cancer Research (OICR) managing a multi-site, multi-million dollar research collaboration. Since joining the OICR in 2010, I have gained a background in the business side of science, and I formally expanded my skillset by completing a Certificate in Business Management from the University of Toronto. My role at the OICR has grown and I am now also directing the scientific operations of start-up companies that have spun out of the institute. My current role affords me the opportunity to be exposed to exciting cutting edge science, and although I am not planning and executing experiments, I am using my skills to do what I enjoy the most in an innovative research environment. I successfully took my education in analytical chemistry and my grad school skills in problem solving, multi-tasking, research planning, and execution to initially earn credibility in the pharmaceutical industry and then applied all this experience to my current role at the OICR.

So, why did I bother to get a PhD in analytical chemistry if I am not actually 'doing' analytical chemistry? Well, I bothered to get this level of education because I like problem solving and I like science. And although my career path may be considered non-traditional for a PhD analytical chemist, I have found a niche that I am passionate about and where I can apply all the transferable skills I have learned along the way.