How I Ended Up As a Patent Attorney

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Unlike many young scientists who head off to hone their research skills as a post-doctoral fellow, I entered law school after I received my PhD from the University of California, Berkeley. Although this move was certainly not unheard of for biologists, I knew of only two other students or post-docs who had gone on to become lawyers. So what made me leave active bench research and become a patent attorney?

First, what were my motivations to enter a graduate level science program in the first place? As a biochemistry major at the University of California, San Diego, I developed a strong interest in chemistry and biology, including an excitement for learning how cells functioned and for the methods of determining those functions. By my senior year of college, I found that I was motivated to perform agricultural research, following somewhat in the footsteps of my father, who developed improvements in transportation of fresh fruit and vegetables for the U.S. Department of Agriculture. Therefore, I applied and was accepted to the plant pathology department at the University of California, Berkeley.

Graduate work in plant pathology allowed me to explore basic questions about cell function, while also promising more practical research applications than many other biological research areas. My specific research field was plant disease resistance. My dissertation project in the laboratory of Brian Staskawicz focused on isolating and characterizing an avirulence gene, \textit{avrRPS4}, from a bacterial pathogen, and then isolating the Arabidopsis gene that is responsible for specific resistance to bacterial strains carrying \textit{avrRPS4}. It was a particularly exciting time to study disease resistance because recently developed genetic systems allowed for the relatively rapid isolation and characterization of genes involved in disease resistance. The Staskawicz laboratory was one of the early pioneers in identifying the molecular gene products in disease resistance. Against this background, I explored how plants recognize specific plant pathogens and initiate a disease resistance response against the invading pathogen. I designed experiments to answer these questions and interacted with other laboratories that were addressing the same problems from various angles.

So why, in the midst of such an exciting field, did I apply to law school instead of applying to laboratories looking for a postdoctoral position? First, I decided that I did not want to continue in laboratory science as a post-doc. Although post-docs often have the best opportunities to perform cutting edge research in a laboratory, post-docs’ future opportunities at the time appeared uncertain to me. Moreover, I was not willing to move anywhere that an assistant professorship or industry scientist position might have opened.

This explains why I did not follow the most common path of a PhD student. But why did I choose patent law? First, I knew that after three years in law school, I had a good shot at a job at a job in the location of my choice. The main reason, however, was that I wanted a daily involvement in an intellectually challenging career that kept me in close contact with biological research. I have found that involvement as a patent attorney. Two years after finishing law school, I am still satisfied with my career choice.

As a patent attorney, I approach science from a different viewpoint than scientists. Much like scientists, patent attorneys stay abreast of the upcoming discoveries in research fields. However, patent attorneys do not design experiments to achieve those discoveries. Instead, patent attorneys try to predict potential new variations or new uses of an invention to provide their clients with as much protection of their clients’ ideas as possible.

In spite of the differences in how new discoveries are considered, patent attorneys need a good grasp of the science behind new discoveries. Indeed, one of a patent attorney’s many jobs is to explain how to make and use a particular invention and to explain how it is different from what was known before. One of the job’s challenges is convincing a patent examiner that a patent application has met these goals. Thus, I am constantly in contact with inventors and reading papers and patents that are related to inventions. In addition, I must persuasively show what a patent application teaches and, for example, why a particular invention is not obvious from prior inventions. This requires critical thinking in a scientific framework and provides a great source of achievement when the client’s goals are attained.

As a patent attorney, I stay in constant contact with inventors. I receive invention disclosures from inventors, typically industry scientists or university professors, and interact with inventors often to learn more about their results. As an attorney who works exclusively on biotechnology inventions, I see technology from research fields such as immunology and quantitative PCR. However, approximately one-third of my practice involves plants, typically plant genes.

Thus, in some ways, a patent attorney’s life is not so removed from laboratory research. Indeed, patent attorneys are often one of the first people outside a
laboratory to learn of a new discovery. Already, in the short time I have been a patent attorney, I have been surprised to read a letter in *Nature* about an invention that I had melded into a patent application some time before. In addition, being a patent attorney fulfills my interest in science’s practical applications.

Thus, I feel that I have found a good career niche that allows me to use my scientific experience and knowledge. Admittedly, some days I feel trapped in the office and, like many people, I would like to work fewer hours. Overall, however, I have been very satisfied by learning about scientific discoveries and thinking about how these discoveries can be protected. I expect that satisfaction to continue long into the future.

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