

Interview with Dr. Laurence MacPhie: Partner at Bereskin & Parr LLP

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Dr. Laurence MacPhie is a partner at Bereskin & Parr LLP, a leading Canadian intellectual property law firm. He received his undergraduate degree in Biochemistry from the University of Waterloo and his PhD in Human Genetics at Oxford University, where his thesis work focused on elucidating the genetics behind complex traits, particularly identifying the genes influencing ADHD, dyslexia, and other cognitive disorders. During his studies, he began to notice a gap between scientists working in genetics and others working on the legal and social issues surrounding the emergence of new genetic technologies. This spurred him to return to Canada and complete his law degree at the University of Toronto. He now works as a patent agent and lawyer specializing in the life sciences, and has lectured on various topics relating to commercialization and patent law at Canadian universities.

1. How did your graduate education prepare you for your career?

My graduate education provided a great foundation for a career in patent law. Patent lawyers and patent agents typically have at least an undergraduate level degree in science or engineering. However, graduate-level research can provide a deeper understanding of the scientific process that comes from developing a research program and carrying out experiments. That background is very useful for understanding new technologies and working on patent applications – even if the new technology is in a different field than your previous research.

I also find that inventors appreciate talking to someone who has spent time in a lab and understands how difficult it can be to carry out research and produce data to support an invention. A graduate degree also gives you certain amount of credibility with clients and can help establish expertise in a particular area.

2. What is your average day/week like? Can you describe a current project you are working on?

Generally, I spend 50% of my time dealing with the Canadian patent office on behalf of foreign companies, often from Europe, the United States, or Japan, helping those companies secure patent rights in Canada. I spend the other 50% of my time helping Canadian clients, such as biotechnology companies, or hospitals and universities engaged in technology transfer, draft patent applications and/or create a patent strategy that is suitable for them.

The specifics of each strategy are highly dependent on the type of client and technology they are seeking to commercialize. For instance, the right approach for a start-up company working on a medical device might not be suitable for a large pharmaceutical company or an inventor at a university whose research suggests a new diagnostic test. As a result, I spend a lot of time talking to clients to identify their particular needs and considering different options for pursuing patent protection.

Patent lawyers often get to work on a wide variety of different technologies. One of our major international clients specializes in enzymes suitable for commercial and industrial applications, including heat-stable enzymes originally isolated from thermophilic bacteria. These kinds of enzymes can be found in a variety of products, such as laundry detergents, where they have to be capable of tolerating extreme heat and denaturing conditions without losing their function.

We have also been involved from the beginning helping a Canadian biotechnology company obtain intellectual property for a peptide with anti-cancer properties. The peptide is now in clinical trials and has shown positive results in patients with solid tumors. Patent protection is very important for companies trying to develop therapeutic agents and can help secure the necessary funding for running clinical testing and R&D.

3. What is your favourite and least favourite part about the job?

I enjoy working at the interface between scientific research and commercialization. Many of our clients have really interesting technology or are working on cutting-edge research and development. As a patent lawyer, I am no longer involved in research, but I still get to work with inventors on scientific projects and try to move that research into the commercial arena.

My least favourite part of the job is the administrative tasks that are an essential part of running a law practice. Patent law involves a lot of critical deadlines that require careful time management, as well as working late or on weekends. It can be a demanding profession but is also very rewarding.

4. What is the current demand for MSc or PhD students in your field?

There is always a demand for good people in intellectual property and patent law. The field isn't growing as fast as it used to, but it is unlikely to diminish in importance over the years.

Law school is a significant investment of time and money, but is necessary if you wish to practice law. Law school can also open doors to practice areas other than intellectual property. I know lawyers with graduate degrees in the sciences who went to law school with the intention of practicing patent law, but are now working as criminal lawyers or corporate lawyers.

Becoming a patent agent is a separate qualification from becoming a lawyer and allows you to represent clients before the Canadian Patent Office. It is not necessary to be a lawyer in order to become a patent agent, but you must have trained in the field for at least two years before writing a series of exams to qualify for the certification. The field is competitive and there are typically only a small number of companies or firms looking to train patent agents each year, so it largely requires a graduate degree, such as a PhD, and a healthy dose of luck.

Some larger companies may also be looking for people with a technical background to help manage their intellectual property or become intellectual property specialists. Companies often recruit for those types of jobs internally or may look externally to try and find someone with a strong technical background (such as a graduate degree) and some legal or patent experience.

5. Do you have any advice for current graduate students who would like to envisage a similar career path?

Graduate school is a great time to start networking and gain exposure to as many different opportunities as possible. A graduate degree is a good indication of technical competence, but having some additional experience relevant to law and/or commercialization will help set you apart. One suggestion I have is to try to get involved in any capacity with your university's technology transfer office. The field of intellectual property is somewhat obscure and any kind of concrete experience working with patents is valuable, either on a law school application or a resume.

Furthermore, experience with entrepreneurship or in a business environment is great for people interested in patent law. Entrepreneurship is not for everyone, but experience helping run a small business or trying to launch a new company (even if not a tech company) is a useful addition to the technical education provided by a graduate degree.