C hristine Ring recalls the day she announced her enrolment at Boalt Law School in Berkeley, California, as one of the worst of her life. Her lab members were shocked and disappointed. They e-mailed her all the lawyer jokes they could find. That was in 1993. Today, few even blink when someone trades the lab bench for law.

Those who want to leave the lab but stay in science can focus on its business and legal side through intellectual-property law. Scientists often enter this field by formal routes, applying to law firms or schools. Some find opportunities in companies (see “The write path,” right) or at universities’ technology-transfer offices. But, whatever the route, without formal qualifications most careers will stall.

For Mary Rucker, dabbling in formal legal training during her scientific education provided a path to a more satisfying career. While struggling to make her experiments work as a graduate student at the University of Florida, Rucker took a course in basic patent law for scientists. She loved it. She attended law school immediately after earning her PhD, and is happy to stay in touch with science as an intellectual-property attorney with Finnegan Henderson in Atlanta, Georgia.

Patent law offers opportunities for those who wish to leave the lab but not science, says Monya Baker.

Researchers bringing inventions to her have already slogged through the false starts, she says. “Every day, I get to look at research that worked.”

But finding out about legal training and employment opportunities while training as a scientist can be difficult. Law is a career path few principal investigators point their trainees towards, and graduate students have little, if any, exposure to scientists-turned-lawyers.

Scientists who might enjoy law may not even know that such an option exists, says Tae Bum Shin. While a postdoc at Stanford University a few years ago, Shin met with several former Stanford fellows who had moved into patent law. He found the idea of analysing science from an alternative perspective appealing.

Hot property

Shin took a different route from Rucker, applying to law firms rather than schools. Many firms allow scientists to try the work before committing to years of schooling and thousands of dollars of debt. Shin accepted an offer from an intellectual-property specialist, which now pays for him to go to law school at night while working full time at the firm. This arrangement limited his choice of law schools and leaves him with little time for anything besides law, but Shin likes combining hands-on work with coursework.

However, the decision to enter law was not easy. Shin struggled with giving up his identity as a scientist to enter a different field in which he would be starting from square one. Going to a law firm that employs many former scientists can ease this transition, he says. Instead of feeling like an over-age trainee in a sea of 25-year-old lawyers, he’s following a trajectory similar to that of some of his senior colleagues.

Despite such options, the transition can be difficult, especially for young scientists who have run their own experiments or even labs. No matter where a scientist starts in law, humility is essential, says Sarah Kagan, who became a lawyer with Banner & Witcoff.
in Washington DC, after completing a PhD and postdoctoral fellowship in molecular biology. “People with advanced degrees must be willing to take training and criticism, even from people who may be younger than they are,” she says. “They must not be too proud or embarrassed to ask basic questions.”

Rebecca Shortle was working towards a doctorate when she realized she no longer wanted to do bench work, but did want to remain in touch with science. After some informal interviews, she quit her graduate programme to work in the intellectual-property group of international law firm Morrison & Foerster. She liked schedules driven by weekly and daily deadlines rather than unpredictable experiments. But with no prior legal experience, she found herself on a steep learning curve, drafting patent applications and searching scientific and legal databases to assess projects’ patentability.

Workers in intellectual property spend their days reading, writing and researching, says Shortle. In one week, topics can vary from transgenic plants to small-molecule drugs to bioinformatics. There’s no time to master the scientific field of every researcher. “You need to be able to look at what they’ve got, ask the right questions and put it into a legal format,” she says.

**A juggling act**

After several months of work at the firm, Shortle took the exam to become a patent agent and qualified to represent clients before the patent office directly. But, after working at Morrison & Foerster for three-and-a-half years, she decided to go back to school to study for a professional law degree; moving up in a law firm is impossible without one, she says.

In lieu of attending law school and sitting exams, scientists can find intellectual-property work at university technology-transfer offices and technology-based companies. Lita Nelsen, head of the Massachusetts Institute of Technology’s licensing office, has hired several “refugees from the bench” and looks for the same characteristics as law firms. “They have to be able to juggle,” she says. “If you like getting into something in depth and working on it for a long time, this isn’t the office for you.”

People in junior positions typically move on after two to four years, often to law or business school. When recruiting for senior positions, Nelsen looks for good technical backgrounds, industry experience and a sense of how an idea can be turned into a product.

Outside the United States, there is less emphasis on law degrees and more on qualifying exams. In the United Kingdom, for example, trainee lawyers work in patent-law firms and qualify to represent clients before the British and European patent offices by taking a series of exams over several years. Patent lawyers can qualify to argue cases before judges, but most UK patent lawyers work with patent offices; patent litigation in the courts is generally handled by other branches of the profession, who are less likely to have formal scientific training.

Regardless of a country’s formal requirements, patent attorneys everywhere need similar skills. “Time management is a big issue,” says Philip Webber, who earned his PhD in neurogenetics before becoming a partner at Frank B. Dehn, which has offices in the United Kingdom and Germany. Good writing skills are essential. Attorneys also need to be able to adjust their language to suit a variety of contacts: other attorneys, inventors with deep scientific knowledge but little legal expertise, and project managers who care little for law or science but want milestones completed on time.

Patent attorneys must be able to remain attentive to detail even while switching between various projects, says Danielle Pasqualone, a patent counsel with Genentech in South San Francisco, California. After her postdoc, she started advising patent attorneys on technical issues at Incyte Pharmaceuticals, now based in Wilmington, Delaware, then decided to go to law school.

Her current role requires her to know rafts of rules and keep reams of paperwork in order, making sure that all forms are filled in correctly, every deadline gets documented and met, and that her calendar is meticulously maintained. At the same time, she must ensure that everything she does fits into Genentech’s overall patent strategy. She believes most scientists would find this level of detail too tedious.

After scientists make the leap into law, their next big decision is whether to work for a law firm or to “go in-house,” that is, work for a technology or drug-development company. Law firms tend to require longer workdays, but offer more varied work and higher pay. In-house lawyers can work with the range of technologies at one company and guide long-term strategy.

Ring has worked in law firms but opted to go in-house after having her first child. She now works at Sunesis Pharmaceuticals in South San Francisco, California. In terms of engaging, unusual cases, she says, you can’t beat a law firm, but working for one small company still holds her interest. “I get a broader exposure to science being a lawyer than when I was actually doing it,” she says. In other words, she left the bench, but not science.

**Monya Baker is a freelance writer in San Francisco, California.**