market those technologies presented a whole new challenge. "To me, this was even more exciting than the bench science," he says. And he wanted more of it. So in May, he began a one-year MBA programme at Cornell.

Some find business more exciting than science just because things can happen faster. In 2004, Ana Albir graduated from the Massachusetts Institute of Technology in Cambridge with a major in physics. But the research experience she had accumulated as an undergraduate led her to decide that a career in physics was not for her. "It can take decades to see results," she says. In 2009, she graduated from Stanford with an MBA and she is now chief executive of Moondrop Entertainment, a company she founded in 2012 to create educational tablet apps for children. She still works on challenging problems, but now she can solve them in days or weeks simply by designing a clever piece of software. "With physics, I love the field," she explains, "but in what I do now, I love the field and the pace."

Business requires as much creativity as science, say many PhD graduates who are pursuing MBAs. But advanced science degrees tend to be more of an individual pursuit, whereas business qualifications usually involve working as part of a team. "I like the collaboration," says Drew Rattigan, a second-year MBA candidate at Smeal. "I like a more social environment."

Teamwork is a big plus for Hillerich too. After he had been in the programme at Cornell for less than a month, he knew all his classmates — at around 100, at least during the summer, a much larger number than in a PhD programme. Working in groups with them is great, he says. "Everyone thinks about things so differently. It expands your own thinking."

An MBA was always on the cards for Ally Chang, who received a PhD in biomedical science from the University of Auckland in New Zealand in 2009 and an MBA from Cornell in 2011 and is now the new-products commercial manager at Corning Life Sciences in Tewksbury, Massachusetts. Her science background is a big asset when she works with researchers to decide whether their ideas will work in the marketplace. "I've heard the comment — so many PhDs, so few professorships," Chang says. "But even before I started my PhD, I knew I didn't want to be a professor. I wanted to do what I'm doing." Chang has always had a passion for science — but she wants to turn her scientific ideas into commercial products.

Havenstrite and Hillerich, too, have chosen business for business's sake, because they believe it is a way to have a direct, positive impact on people's lives. "That is why I got into science in the first place," Hillerich says. It is a sentiment expressed by many scientists who have, or are seeking, MBAs: they want to do work that has tangible, measurable effects, and soon, not in some abstract, distant future. ■

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TURNING POINT
Andrew Dove

Andrew Dove was named the 2014 Royal Society of Chemistry Gibson-Fawcett Award winner in May. A chemist at the University of Warwick, UK, Dove describes his circuitous path into research on biodegradable materials for regenerative medicine, which involves replacing or regenerating human tissue.

What area of chemistry first drew you in?
In a word, catalysis — designing inorganic catalysts that boost the efficiency or change the chemical properties of large polymers known as plastics. After working at BP Chemicals in Saltend, UK, during my fourth year of university, I thought I wanted to work on industry-sponsored projects — for example, using these catalysts to make polyethylene, a chemically resistant plastic.

Why did you initially focus on industry?
It was probably my dad's influence. Academia was not on my list of potential careers. But I came to realize that I really enjoyed basic research and wanted to give it a go. I applied for a PhD at Imperial College London, where my adviser offered me a project making polylactide, which is now the most widely used biopolymer around, particularly in biomedical applications. Now that it can be made from corn, rather than from petrochemicals, it is cheaper to use in the face of rising oil prices.

How was your postdoc a turning point?
My wife and I moved to the United States to pursue postdoc positions in a bid to build up our CVs. I was at Stanford University in California for about 15 months working on inorganic catalysis. Then my funding ran out. But my wife still had her postdoc funding to work at IBM, and I was able to get a postdoc contract there too, in the company's Center on Polymer Interfaces and Macromolecular Assemblies, which is funded by the US National Science Foundation. There, I started doing more organic catalysis. I had freedom to do whatever I wanted as long as good, publishable science was the result. It was a breakthrough period because it helped me to believe that I had good ideas and could translate them into interesting projects.

Where did your research go from there?
I should credit the American Chemical Society with my change in direction. The inorganic chemistry and polymer talks in their meetings were always at opposite ends of the conference centre when I attended them in 2003 and 2004 — so I had to choose which I found more interesting, and polymers won. Those meetings proved crucial for helping me to understand where the cutting edge for creating new polymer materials really was at the time. I saw a couple of opportunities. One was to find ways to give biodegradable materials different physical properties and use those materials in high-value applications such as in biomedical devices.

How did you approach your job search?
I applied for jobs probably even before I was ready for them, and found that it really helped me to hone my research proposals. In 2004, I started applying for academic posts. Rather than looking for jobs with 'inorganic' in the advert, I applied for a UK fellowship in nanoscience, and persuaded the university that I had the skills for the job. In 2005, I started my own group at the University of Warwick.

What are you working on at the moment?
I'm working on degradable polymers. One is a hydrogel material that could one day be combined with adult stem cells to make a scaffold able to regenerate a human spinal disc. Once the cells start to grow, the biological material would take over, leaving nothing synthetic in the body.

How do you feel about media observations that Royal Society of Chemistry award winners often become Nobel laureates?
I find it quite amusing. It would be lovely if that happened, but I think the press made a bit of a leap. I don't feel daunted by it because I don't take it seriously. ■

INTERVIEW BY VIRGINIA GEWIN