RECRUITERS & INDUSTRY

GRADUATE JOURNAL

PhD limitations

When I decided to pursue a PhD, I thought the long road to this short acronym would pay off with respect (mainly from people outside academia), more job opportunities and better pay, in academia and industry.

But I've now realized there are no guarantees — especially in 'nontraditional' jobs outside research. Recently I was talking to someone who had just gained her PhD and was trying hard to find a job in pharmaceutical marketing. She has discovered that people with doctorates are not readily hired in that field, as they are considered too expensive and over-qualified. But one of my fellow students who left university after his master's degree has got the sort of job she was seeking, in a leading pharmaceutical company.

A PhD reflects specialization in a research area and therefore imposes certain limits on future job choices. Looking for a research position is usually a matter of availability and complementary research goals, but diving into non-research subjects can be difficult and sometimes requires additional skills. Thinking about this earlier, rather than later, in your career can save you time. I plan to use these conversations to see where I want to go and what skills I need to get there — before I complete my PhD. ■

Philipp Angerer is a third-year PhD student in biotechnology at the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland.

Get a foot in the door

There is no magic trick for landing a good job in science. But if you produce good research or file useful patents, you can take a few steps to plant the seeds of opportunity.

Network. Introductions from friends, mentors and collaborators are especially valuable. When you come in contact with people who teach you and share ideas, do reciprocate. Show a sincere interest in their achievements and help them during difficult times.

Follow up. Collecting business cards is even more important than giving out yours. Maintain close contacts with mentors and friends, not just when you need a job. E-mail your CV directly to scientists, who will notice your attributes more than administrators. If you cannot meet the speakers from conferences, search for their e-mail addresses and ask for slides.

Volunteer. To build new skills and contacts, spend some time in a different lab. Volunteering at commercial conferences can get you a free pass to attend seminars and meet speakers. Organizing seminars and panel discussions for local societies is also a good way to meet scientists.

Be industrious. Even if you are based in academia, collaborate with industry-based scientists. They could provide unique reagents or helpful recommendations. One may even become your future boss. Consider a temporary industry job or a postdoc. You will gain valuable perspective on industry, and may get hired permanently.

Meet people. Attend free seminars at small academic symposia to meet scientists and catch up on hot technologies. Talk to vendors at trade shows. Ask them which companies are hiring and what technologies are hot. Use your first meeting to establish rapport: talk about science or shared interests rather than jobs.

Prepare. Have a short, memorable 'smart pitch' ready to market your scientific background and accomplishments in simple terms a broad audience can understand, and in less than a minute. Also tailor your resumé or CV to match a company's needs or its job descriptions. If possible, send it directly to a scientist you've met in the company – it's much more likely to be read.

Above all, remember that all interactions are potentially important. Be cheerful, kind and helpful to everyone, not only managers! Show a passion for science. Plant many seeds, learn, become wiser today than yesterday and create more options. A positive-minded problem-solver with creative ideas, talents or expertise will be welcome at any door. ■

Grace Wong is founder and chief scientific officer of ActoKine Therapeutics and founder of Student Vision.

MOVERS Julia King, principal of the engineering faculty, Imperial College London

J. CHLEBIK

It was the champagne lifestyle that first attracted Julia King to a career in science. During the optimistic 1960s, says Imperial's new head of engineering, the newspapers seemed full of pictures of scientists celebrating their latest breakthrough with a bottle of bubbly.

"Particle physics was the exciting face of science when I was young," says King, who was born the year the European particle-physics lab CERN was set up: both have just celebrated 50.

At the University of Cambridge, where she went to study physics, King discovered new interests, but the switch to materials was painless. For that reason, she says, "I'm a strong supporter of courses such as natural sciences at Cambridge, where you can sample a range of things".

Despite the good pay and prospects on offer, and the excitement of seeing one's ideas become a product, King can see reasons why women haven't made more inroads into engineering. These include loneliness, the work–life balance — she and her husband are enjoying living together after years of weekend commuting — and a lack of role models that could make a woman's ambition seem somehow inappropriate.

"Engineering can still be quite an oppressive environment for a woman, though not intentionally," she explains. "When you're finding it tough there isn't an obvious person to have a chat with, and you may not see that, in other parts of the company, women have made it up the management ladder."

Excellent female science teachers were her own first role models, but she advises students to be open to guidance from all sources. One of the most useful pieces of advice she received was from an old technician at a US aeroengine maintenance plant, who said the engine dressings — an intricately designed mass of pipes and wires – gave his team hours of extra work when they had to be dismantled. "That taught me to think of what's useful to the customer," she says.

She's keen on an area that could draw into engineering some of the young female science students who currently head for medical school. At Imperial's new bioengineering department, 50% of undergraduates are women. And as she says, "That's something to celebrate". ■

CV

2002–04: chief executive, Institute of Physics
1994–2002: Rolls-Royce plc: head of aerospace materials; managing director, fan systems; director of marine engineering & technology
1992–94: lecturer, University of Cambridge
1987–92: British Gas/Royal Academy of Engineering senior research fellow, University of Cambridge
1980–87: lecturer, University of Nottingham
1978–80: Rolls-Royce research fellow, Girton College, Cambridge
1972–78: BA in natural sciences and PhD in fatigue and fracture, New Hall, Cambridge