

MOVERS

James Pendlebury, chief executive, Forest Research, Alice Holt Lodge, Farnham, UK.



2007-08: Head of specialist advisers, Forestry Commission, Edinburgh, Scotland

2004-06: Business policy adviser, Forestry Commission Scotland, Edinburgh, Scotland

2002-04: Partnership manager, Forest Enterprise Scotland, Inverness, Scotland

James Pendlebury is not a typical materials scientist. He studies the properties of wood rather than metal alloys: a niche that has helped sprout a gratifying career path.

Trained in forestry, Pendlebury has travelled the world, largely helping industry assess local species' unique properties. That has given him a global view of forestry concerns that he says will help him direct the UK Forestry Commission's research agenda, focused on climate change, bioenergy and sustainable forest management.

His roots, however, are in research. "The essence of wood science is understanding the material itself — the structural and chemical properties — that make each species unique," he says. With industry support, he pursued a PhD at the University of Aberdeen in Scotland, studying how Malaysian tropical hardwoods could be processed for use in construction. His PhD adviser, Alan Petty, says such an industry-funded project was unusual at the time. But it gave Pendlebury an early appreciation for applying research to industry.

Pendlebury developed an expertise for finding new uses for timber species as he travelled the world. As a postdoc at the University of Maine in Orono he investigated whether local spruce species could replace imported pine as telegraph poles. He investigated wood preservation and pulp properties for the South African government. Then he worked on preservation techniques at the TNO Centre for Timber Research in the Netherlands and in New Zealand.

He returned to Britain, after eight years, as a timber consultant for TRADA Technology Limited, a research consultancy near London. He then eagerly took charge of a small non-profit forest management company called Highland Birchwoods in Ross-shire, Scotland. "There I learned how important it is to link local economic benefit with environmental gain," he says. Six years ago, he joined the Forestry Commission, helping to start large-scale forestry projects in Scotland. In his new position, he will oversee the nascent Centre for Forestry and Climate Change, opening next year. Aims include identifying potential pest risks and alternative forestry practices.

"Adaptation to and mitigation of climate change will be key," says Pendlebury, adding that forestry's role is not only about restoring forest cover, but promoting wood energy from renewable timber sources. Exploring forests' carbon sequestering potential, says Petty, is likely to be a major objective for Pendlebury. ■

Virginia Gewin

NETWORKS & SUPPORT

Developing generic skills

At the University of Dundee in Scotland, the generic-skills programme has a rather specific aim: to prepare young scientists for a challenging employment landscape. Building on its success, the programme has added a series of lunchtime workshops with truncated versions of some courses that emphasize one-to-one instruction in subjects ranging from tweaking a CV to matching skills and experience to jobs outside academia.

More than 50% of Dundee's life-sciences graduate students and 40% of its life-science postdocs have taken the full-blown courses in the two years they have been available, says training coordinator Christine Milburn.

The courses emerged following the 2002 Roberts report, which recommended ways to infuse Britain's science, engineering and technology pipeline with talent. It emphasized training in soft-skills areas: research environment, research management, communication skills, personal effectiveness, networking, team working and career management. The Dundee programme includes grant writing, presenting papers at conferences and managing projects.

The most heavily subscribed course emphasizes communicating science to non-specialists; its popularity

reflects the growth of interdisciplinary research, where chemists, physicists and biologists need to find a common language. Communications coursework is also working to reach the non-scientific community.

The programme works with the university's postdoc and graduate-student organizations to pick the curriculum and refine content, Milburn says. Feedback has been especially positive for courses that encourage graduate students and postdocs to 'map' their skills and interests to different career paths in both academia and industry, then seek training to fill any gaps.

As a result, participants say they don't feel locked into pursuing academic careers; the programme warns them that only a small percentage will land university jobs. It illuminates other pathways, such as media, marketing and technology transfer, says Milburn.

"A lot of people who are taking part in this are looking at a new direction," she says. "They feel the university is supporting their career, not just their research." Other Scottish universities are now emulating the programme, including transferable skills courses at the University of St Andrews and the University of Edinburgh. ■

Paul Smaglik

POSTDOC JOURNAL

Research growing pains

My postdoctoral experience is about to come to an end. After an intense half-year of interviews and negotiations, I have accepted a position as an assistant professor back home in the United States. I'm glad that all the travelling, seminar preparations and in-depth scientific conversations have paid off. But I loathe transitions: research growing pains can be painful. Settling into my postdoc three years ago took time and effort, not only because of the culture shock of being in Israel, but because my new direction, studying the effects of genes on an entire plant, required a rewiring in the way I approach science.

Now I must rewire again. I will be managing a lab, doing less hands-on work. Some say that the postdoc is the best time of a scientist's career. I can see why: there is freedom of research without the stresses of grant writing; mentoring is more fun and less business; there's less politics and bureaucracy.

Is it all downhill from here? How high will the stress level climb now that I am responsible for grant writing, teaching, thesis committees, extensive mentoring and striving for the long-term goal of tenure? I'm trying not to obsess too much about these issues, because I fear it may prevent me from making that first step onto the plane back home. But the reality is that I am excited in so many ways, and this new energy has already started to dull the pain of the transition. ■

Zachary Lippman is a postdoctoral fellow at the Hebrew University of Jerusalem's faculty of agriculture.