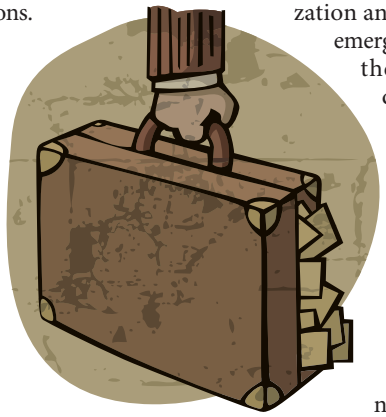
EUROPE

Mobility boost

The European Student Union (ESU), which represents more than 11 million students, is calling for measures to boost student movement in Europe. A statement on 26 April from the union in Brussels says that a voluntary agreement, known as the Bologna Process, has stalled. Improving mobility was a motivation for the process, which was adopted in 1999 to make quality-assurance standards comparable across the participating nations. For better mobility, more graduate-level grants need to become portable, says ESU chairman Allan Päll. Portable schemes, such as Marie Curie Actions and Erasmus, represent only a tiny percentage of the available funding, he notes.



A. ZABELLA

CAREER DEVELOPMENT

Best practice

Recruitment is now more transparent and participation in performance reviews more common for UK academic researchers, finds a publicly funded group analysing the impact of academic standards. Vitae, a research-career advisory organization in Cambridge, UK, reviewed the success of a 2008 voluntary concordat among universities to improve the work life of researchers. The agreement aims to boost the appeal of research careers by setting guidelines for support. Further progress is needed, says Vitae chair Janet Metcalfe, including the greater engagement of researchers in their career development; Vitae are due to launch an online career-tool this autumn for researchers.

INNOVATION

More US success

An invention by an academic in the United States has a better chance of going to market than it does in other nations, a study finds. *University Entrepreneurship and Professor Privilege*, a working paper released by the Research Institute of Industrial Economics in Stockholm on 12 April, also finds that faculty members in other nations are more likely to try to launch their own inventions. Co-author Erika Färnstrand Damsgaard, a research fellow at the institute, says that US technology-transfer offices have more market-analysis skills, invest more in commercialization and often license to solid businesses, boosting the chances of success.

▶ early-stage researchers. Although they too may be unfamiliar with the process of starting up a company, they have a powerful incentive: they need a job. Young scientists should recognize the big contribution that they can make in spearheading the entrepreneurial process, and principal investigators should recognize the part that their postdocs and graduate students can play.

TAKING THE LEAD

Early-stage researchers are at the centre of a new model of technology commercialization and entrepreneurship that is emerging across the United States; they are the ones who are developing business plans and starting companies. This role reversal makes sense. Graduate students and postdocs are in the lab actually doing the experiments that could lead to a new technology, so they often have the best insight into the details of the invention and what is needed to improve it. Unlike principal investigators, who have to split their time and attention across numerous research projects and staff, early-stage researchers can focus all of their time and attention on one project. This single-minded focus is crucial for nurturing an invention. Rather than being just a pair of hands in the lab, graduate students and postdocs are now directing the commercialization effort, with the principal investigator taking on an advisory role.

As well as being familiar with the technology, graduate students and postdocs are often highly motivated, extremely resourceful and adaptable — all perfect attributes for being successful in a small, emerging entrepreneurial venture. No wonder they make the perfect 'number one' at a start-up.

This is not to say that supervisors no longer have an important role. The principal investigator's name is often attached to an innovative piece of technology that has been developed in their lab. In many cases, this is entirely appropriate because the principal investigator may have had the initial idea. And having a well-known name associated with the technology can be an advantage for a start-up company trying to secure investment.

Early-stage scientists have more start-up help at their disposal than ever before. Some of the leading research universities are recognizing the realities of this new model of technology commercialization, and are starting to put into place an innovation ecosystem — a term often used by universities and the US National Science Foundation (NSF) in Arlington, Virginia to describe the system needed to support an environment conducive to business growth. A space to cultivate ideas and meet with outside investors and customers close to campus is crucial for teams in the early stage of technology development. On-campus programmes to introduce the basics of venture creation for scientists and engineers can help those closest to the bench to evaluate the commercial potential of their work, to better orient themselves to the start-up process and to identify key resources, such as funding, on and off campus.

OUTSIDE HELP

Even funding agencies are waking up to the need to foster an innovation ecosystem to promote the commercialization of academic inventions. Last year, the NSF announced its Innovation Corps, which helps those funded by the foundation to determine the commercial potential of their research. Many funding agencies now ask those applying for grants to explain how their proposed research could be applied to real-world problems. This focus means that graduate students and postdocs have not only the opportunity, but in some cases also the resources, to embark on an entrepreneurial venture.

There is still a long way to go to motivate young scientists to become entrepreneurs. Working in a lab means that graduate students and postdocs are rarely exposed to the practicalities of running a business, and there is still a widespread belief in academia that technology commercialization is a distraction from true scientific research.

Young scientists should make sure that they are in the best position to take advantage of an increasing number of opportunities by keeping in mind the practical applications that may stem from their own research. Seeking out or, better yet, developing their own workshops and seminars on technology commercialization — which is already happening at institutes such as Yale University in New Haven, Connecticut, and the University of California, Berkeley — can help young scientists to understand the practical issues associated with venture creation.

Building a professional network outside the halls of academia, including colleagues in industry and start-up-company investors, will provide early-stage scientists with the crucial resources they will need to draw on, should they find themselves with an entrepreneurial opportunity. Bringing together economic interests and academic pursuits will almost certainly create new challenges. But this can only increase the potential career prospects of a young scientist pursuing a PhD or postdoc. ■

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