Conscientious counsellors

Nature’s mentoring awards honour three scientists in France.

BY DECLAN BUTLER

French research has traditionally suffered from a rigid hierarchical and sometimes patriarchal lab structure, in which powerful lab bosses have often hindered the autonomy of younger lab members. But some say that this is changing. Many leading scientists in France work tirelessly to help their younger colleagues to spread their own wings, and the public funding that is increasingly available to young scientists helps them to establish independent careers.

To celebrate progressive mentors and the examples they set, this year’s Nature Awards for Mentoring in Science honour three researchers in France. The €10,000 (US$13,200) lifetime-achievement award was shared between Moshe Yaniv, a molecular biologist and emeritus professor at the Pasteur Institute in Paris, and Jean Rossier, a neurobiologist at the City of Paris Industrial Physics and Chemistry Higher Education Institution. The €10,000 mid-career award went to Barbara Demeneix, a molecular developmental endocrinologist at the National Museum of Natural History in Paris. Winners received the awards at a ceremony at the British Council in Paris on 12 December. (The author of this article was one of the five awards judges.)

As in previous years, candidates were nominated by their protégés; past students and postdocs emphasized how their mentors shaped their careers and nurtured their scientific skills. Fatima Mechta-Grigoriou, who now runs a stress and cancer laboratory at the Curie Institute in Paris, says of her former mentor, Yaniv: “He deeply influenced me, without me being conscious of this at that time, the way I currently drive my research laboratory and my own students and postdocs.”

The mentors were lauded for their contagious passion and enthusiasm for science, and their hard work, rigour and fairness in sharing credit. Many protégés have sought to reproduce their mentors’ behaviour, creating labs that are scientifically challenging and stimulating but also humane and nurturing — and giving their lab members enough autonomy to prepare them to run their own labs.

WORK TO LIVE

“For me,” says Rossier, “the most important quality of a mentor is to be enthusiastic about the proposals and ideas of young investigators. Critiques should come later. First you should say ‘do it’ and then see if the new observation is real, reproducible and of interest.” He strives to foster research projects aimed at “breakthroughs,” rather than focusing on incremental developments within established concepts.

For the award winners, doing excellent science need not come at the expense of having a personal life. All three are demanding bosses, and lab hours are often long, but they eschew the notion of a 24/7 lab (see Nature 477, 20–22; 2011 and J. Overbaugh Nature 477, 27–28; 2011). Catherine Chanfreau-Coffinier, a cardiology researcher at the University of California, Los Angeles (UCLA), and a former graduate student with Yaniv, marvelled at how he and his wife, also a scientist, found time for family. “It has been very inspiring for me as a young scientist and a mother of two,” she says. Samantha Richardson, a biochemist at the RMIT University in Melbourne, Australia, and a former researcher in Demeneix’s lab, tells how her mentor, who has two children, advised her on how to juggle her career with “the conflicting and competing time constraints of a research career and small children, which can be stressful and often exasperating”. Demeneix, the first-ever female chaired professor at the Paris museum, also prides herself on demonstrating how to “carry out research while accepting senior administrative responsibilities”.

The winners often paid particular attention to foreign students’ difficulties, from visa issues...
Testing the waters

Graduates are often faced with a dilemma: stay in academia or seek a job in industry? One of us (C. T.) met this conundrum after he earned his biochemistry PhD in 2007. With little knowledge of the biotechnology industry, he opted for more training, taking a postdoc position at the University of California, Berkeley. If the postdoc did not work out, he thought, he could investigate companies. Even so, he had difficulty learning what working in industry would be like.

Many graduates and postdocs know surprisingly little about what an industry job entails. So we developed a mechanism that helps postdocs at Berkeley — and could help others.

It is called the Postdoc Industry Exploration Program (PIEP; see Nature 478, 277; 2011), and is run by the Berkeley Postdoctoral Association. Influenced by an industry-exploration programme that enrolled 37 science postdocs at Massachusetts General Hospital in Boston (see Nature Biotechnol. 28, 625–626; 2010), PIEP was first launched in January 2011. It organizes visits to biotechnology companies to showcase their organization, research and work atmospheres, and allows postdocs to network with employees and recruiters to gain useful contacts and a feel for company culture. Postdocs are inspired by employees who have made the transition from academy, and get to see team-oriented environments and cross-departmental collaborations. Companies gain access to a highly qualified pool of potential recruits.

PIEP workshops train postdocs in creating a professional image and conducting informative interviews with contacts — particularly useful for international postdocs unfamiliar with US business customs. Postdocs also learn how to market themselves, on paper and in person. Seminars provide information about career opportunities and US work-visa requirements.

The PIEP committee surveyed 55 postdocs who participated in site visits in the first year of the scheme. Only 42% were very interested in industry before the visits, but that rose to 73% afterwards. This success led Berkeley’s vice-chancellor for research, who had funded PIEP’s pilot year, to commit another year of support, including funding for a programme manager.

Postdocs who want to start a similar programme need only a few motivated colleagues and contacts at companies and within the university. The Berkeley PIEP committee is made up of four postdocs, who each volunteer two hours of their time per week; each committee member organizes a site visit with a company’s human-resources department and staff scientists. We have had to work closely together, offer support, exchange ideas and share responsibilities, while accommodating each other’s heavy research schedules.

Some universities may not have the infrastructure to support or sustain industry-exploration programmes, but this is not an insurmountable obstacle. Postdocs can create such programmes by partnering with schemes that already receive university support. For example, Berkeley’s department of molecular and cell biology sponsors a course that brings in doctoral-degree holders to discuss how they moved into a non-academic career. Although this course is aimed at graduate students, it is available to postdocs, and could be part of an industry-exploration programme. Postdocs at neighbouring institutions could also coordinate and pool resources to cover expenses for site visits. Instead of hiring a full-time programme manager, universities could offer stipends to postdocs willing to help out. Interested postdocs will probably still have to donate their time until their university provides financial support.

Postdocs want to make an informed choice between career paths. In our view, the keys to helping them are motivation and institutional support. Initiatives such as PIEP can benefit career-conscious postdocs struggling to sort out their next move in a tough economy.

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