

Training programmes with vision

Wayne Streilein:
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Making the transition from PhD student to fully fledged research scientist is not always easy — and timing is often one of the problems. The trouble with many PhD students is that they do not think about their next step until they are about six months from graduating, says Thaddeus Dryja, director of the Cogan Eye Pathology Laboratory at the Massachusetts Eye and Ear Infirmary in Boston. But that leaves them too little time to write an individual postdoc proposal and get it approved without enduring a gap in funding, he says.

Fortunately, training grants from the US National Institutes of Health (NIH) that are awarded to departments rather than to individuals can ease this problem, smoothing the transition between PhD and postdoc projects.

So far, two postdocs who have passed through Dryja's lab began their studies on the molecular basis of eye diseases thanks to funding from a training grant. One of those postdocs, Stephanie Hagstrom, now an assistant professor of ophthalmology at the Cole Eye Institute at the Cleveland Clinic in Ohio, had applied for an individual grant from the NIH while finishing her PhD. But she, like many quality applicants, needed several more attempts before she met with success.

LOOKING GOOD

Through the training grant — the Training Program in the Molecular Basis of Eye Disease, which is shared among five eye-research institutes affiliated to Harvard University — Hagstrom got involved in a journal club, courses and poster sessions. It also allowed her to have regular meetings with Wayne Streilein, president of the Schepens Eye Research Institute in Boston, which administers the grant. "The programme encourages career planning and opened me up to more scientists and other postdocs," says Hagstrom.

Streilein believes that the training grants have started to redefine postdoctoral training, at least in his part of the research world. "We're trying to break from the tradition that postdoctoral training must be an isolating experience," he says.

Training grants were once relatively rare in ophthalmology. But the eye-disease programme has

led the way for all that to change. Until the late 1980s, the National Eye Institute (NEI) in Bethesda, Maryland, supported many postdoctoral training programmes. But, according to postdocs who received these fellowships, it used the money primarily to fund clinical fellows who did not do research.

In the early 1990s, Streilein and colleagues realized that the Boston–Cambridge area had a huge number of people working in vision research, but no formal programme to support trainees. So they appealed to the NEI to reconsider its position on postdoc training programmes.

"After two years of discussion, the NEI agreed on a pilot basis to let us train five trainees a year," says Streilein, who directs the Molecular Basis of Eye Disease programme. The award, which has been in existence for almost seven years, was renewed two years ago for another five years.

OPEN TO OTHERS

In light of the programme's success — and an element of relaxation in the NEI's postdoc funding rules — other organizations are now applying for similar programmes. Since 2000, the NEI has also allowed more than two postdoctoral positions to be included in all of its institutional training grants.

Another all-postdoc training programme is the Computational Visual Neuroscience Training programme at New York University's Center for Neural Sciences. Led by Robert Shapley, the programme is now nearing its first birthday. It was set up when Shapley successfully sought funding from the NEI to continue a programme seeded by the Alfred P. Sloan Foundation in New York a few years earlier.

The programme focuses on training postdocs from other fields such as mathematics and physics to work in vision research. Because this is a 'retooling' programme, the NEI allows for the possibility of more than one year of guaranteed funding for these postdocs, says Chyren Hunter, a training-programme officer at the NEI. The new flexibility on the part of the NEI is good, says Shapley, "in that it's bringing new people to vision research".

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Web links

The Schepens Eye Research Institute
 ♦ www.eri.harvard.edu
 NYU Center for Neural Science
 ♦ www.cns.nyu.edu
 National Eye Institute
 ♦ www.nei.nih.gov