

Supporting research careers

Kate Reading explains how to attract and retain the best researchers.

The UK needs enough trained people with the science, technology, engineering and mathematics skills to 'enable UK businesses to exploit new technologies and scientific discoveries, achieve world-class standards and compete globally', according to a government paper published with this year's Budget*. And of course universities and many other employers also need people with these valuable skills.

At the Research Councils' Research Careers and Diversity Unit, which started in 2005, we are working with employers, funding councils and others to attract, train, retain and support the brightest and most creative researchers.

Together, the eight research councils are the largest funder of research training in the UK, so we have a big influence at the start of a research career. Around one third of full-time doctoral students (5,500 a year) are supported by the councils, and we also fund many masters students.

Our main task is to work with universities to make best use of the government's £14m a year funding to train research students in transferable skills (such as communication, networking, team working and career management), £12m a year for career development of researchers employed on fixed term grants and £25m a year for academic fellowships.

The prime responsibility for staff development, career progression and security lies with employers, which for many researchers are universities. Researcher Gus Cameron says, 'An open-ended contract to work as a researcher is rare in most universities, but here at the University of Bristol around 50 per cent of the research staff have just that. Change is happening and it's the researchers who get the support of a good institution who will reap the benefits.'

Where councils employ research staff directly, we aim to set high standards. We are developing a strategy on how research councils can best work with universities and other employers and funders to attract and retain researchers and improve their broader professional skills. Our strategy will be published later this year and will include work on improving the diversity of

CASE STUDY – Forecasting hazardous weather

Sarah Dance is RCUK Academic Fellow in the Mathematics of Environmental Data Assimilation at the University of Reading. 'As a job title that's a bit of a mouthful,' she says. 'But in essence the basic ideas behind my research are not all that difficult to understand. One of the principal applications of data assimilation is in weather forecasting. In order to produce a good forecast of future weather we need to be able to put a good estimate of the current state of the atmosphere into our computer model. There aren't enough observations available to do this, so we have to combine the observations we do have with information from previous forecasts and our knowledge of atmospheric dynamics. This process is called data assimilation. My main research interests lie in data assimilation for improving the prediction of hazardous weather. My RCUK Fellowship has given me job stability, the freedom to approach scientific questions from a new perspective, and at the same time an opportunity to teach and communicate my enthusiasm for applied mathematics and atmospheric science to the next generation of scientists.'

the research community.

For example, we are working with the Women's UK Resource Centre (www.setwomenresource.org.uk) to promote the flexibility available in research council funding and dispel any myths; and increase the number of women in research decision-making.

What have we achieved?

The research councils have increased the minimum stipend for PhD students, from £7,500 a year in 2001-02 to £12,600 for 2007-08. We have provided funds for all our researchers to receive, on average, two weeks of training a year.

We also fund the UK GRAD programme (www.grad.ac.uk) which drives up the quantity and quality of skills training for early-stage researchers. It also runs the popular GRAD schools for PhD students. Chris Ellison from the University of East Anglia took part in the Stirling GRAD school 2005. Chris said, 'If you feel that now is the time for a quick break with significant benefit to your confidence, self-belief and productivity, then I recommend attending a UK GRAD course.'

The research councils introduced the UK Academic Fellowship scheme, which helps researchers move from short-term contracts to permanent academic positions. It provides funding for five years, and the university guarantees a permanent job after a successful probationary period. To date, we have announced funding for 800 of these fellowships.

As Margaret Eastcott at Sheffield University observed, 'The university has approached recruitment of academic fellows as a mechanism for attracting and retaining high calibre researchers with the potential to develop into leaders within their disciplines.'

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