

# people



**Training and development are key to maintaining a healthy UK bioscience sector.** There is an increasing need for scientists to learn new skills, collaborate with experts from other disciplines, and share knowledge with scientists in other parts of the world.

## **Our Vision**

We aim to provide an integrated and sustainable framework that attracts and retains talented people in biological science research. This caters for personal and professional development and meets UK needs for research-trained personnel across the whole spectrum of employment.

We develop our training and development schemes to meet the needs of the changing face of the biosciences. The opportunities we provide help scientists follow their chosen career paths either in academia, industry, or by applying their skills to another sector.



Our career-long framework of support is designed to train and retain high-calibre scientists in the UK research base.

## Skills and Training Framework

BBSRC's training and development framework builds on the recommendations of the Roberts' Review (2001) and the QAA's *Code of Practice on Postgraduate Research Programmes* (2004).

We work closely with research institutions to ensure that development opportunities are available to all scientists. For example, we provide transferable skills funding for research students directly to institutions and we require that BBSRC-funded postdoctoral researchers have access to comprehensive careers advice and support for their professional development.

## Universities and Research Institutions

We expect institutions where our funded researchers work to have an effective human resources framework, as outlined in the Research Careers Concordat [www.universitiesuk.ac.uk/activities/rci.asp](http://www.universitiesuk.ac.uk/activities/rci.asp). This should include regular performance assessment and provide researchers with appropriate careers advice highlighting development opportunities.

## BBSRC-sponsored Institutes

We work with our sponsored institutes to ensure that suitable training and development opportunities are available to all employees. This is a priority for BBSRC and our vision for recruitment, development and retention of our employees at institutes as outlined in our Institute Human Resources Strategy. Further information on our human resources strategy and general support information for staff can be found at [www.bbsrc.ac.uk/staff](http://www.bbsrc.ac.uk/staff).

### **Babraham Institute**

Research supporting biomedical, biotechnological and pharmaceutical sectors.

[www.bi.bbsrc.ac.uk](http://www.bi.bbsrc.ac.uk)

### **Institute for Animal Health**

Improving the health and welfare of farm animals.

[www.iah.bbsrc.ac.uk](http://www.iah.bbsrc.ac.uk)

### **Institute of Food Research**

Investigating food safety, diet & health, food materials and ingredients.

[www.ifr.bbsrc.ac.uk](http://www.ifr.bbsrc.ac.uk)

### **Institute of Grassland and Environmental Research**

Science for agriculture and the environment.

[www.iger.bbsrc.ac.uk](http://www.iger.bbsrc.ac.uk)

### **John Innes Centre**

Research and training in plant and microbial science.

[www.jic.ac.uk](http://www.jic.ac.uk)

### **Roslin Institute**

Livestock genetics, breeding, welfare and biotechnology.

[www.roslin.ac.uk](http://www.roslin.ac.uk)

### **Rothamsted Research**

Research on sustainable plant-based agriculture and the environment.

[www.rothamsted.bbsrc.ac.uk](http://www.rothamsted.bbsrc.ac.uk)

### **Silsoe Research Institute**

Bio-systems engineering research and its exploitation (until March 2006).

[www.sri.bbsrc.ac.uk](http://www.sri.bbsrc.ac.uk)



The framework aims to give researchers flexibility in shaping their careers.



### Case Study

**Autumn Rowan-Hull** graduated with a DPhil in developmental neurobiology in 2000. During her DPhil she had two children. Following her graduation she decided to take a career break to spend time with her children while they were young.

She was awarded a Daphne Jackson Fellowship in 2002 that allowed her to return to a research career at the University of Oxford. During the first three months of her return to research, Dr Rowan-Hull co-authored a paper on 'limb innervation' published in the *Journal of Anatomy*.



### Case Study

**Giles Olroyd** began his research career in the USA with a PhD and postdoctoral position. With the majority of his experience and contacts in the American scientific community, he received a number of attractive start-up package offers in the USA. Dr Olroyd was keen

to return to the UK however, and in 2002 he was awarded a David Phillips Fellowship, enabling him to return to the UK to establish himself as an independent plant researcher at the John Innes Centre.



### Case Study

**Anne Willis** was appointed to a new Chair in Cancer Cell Biology at the University of Nottingham in 2004. Her research is on protein synthesis and how aberrant regulation, for example, in response to carcinogens, contributes to tumour formation and growth.

Professor Willis was awarded a BBSRC Advanced Fellowship\* in 2000 that enabled her to focus full time on research. She has since been awarded 12 grants totalling £2M from a variety of funders, and has published 25 scientific papers.

\*this scheme has been subsumed in our new structure of Fellowships

## Starting out

We provide funding to universities for **Vacation Research Bursaries**, enabling undergraduates get a taste of research work through short summer research projects. We also support selected **Masters** courses to allow graduates to develop skills in specialist research methods and to train in emerging technologies and tools.

**PhD training** is a vital first step on the research career ladder. We provide funding for PhD training to institutions across the UK. Some of these funds are awarded as Doctoral Training Accounts allowing institutions to provide PhDs with more flexibility, for example by offering four year courses or enhanced stipends in particular subjects. We only give funding to those universities we believe provide a vibrant research environment and comprehensive training that will give scientists an excellent start to their careers. (BBSRC does not provide postgraduate awards directly to individuals, but allocates them to departments who then advertise for candidates).

[www.bbsrc.ac.uk/funding/training](http://www.bbsrc.ac.uk/funding/training)

## Academic Career Progression

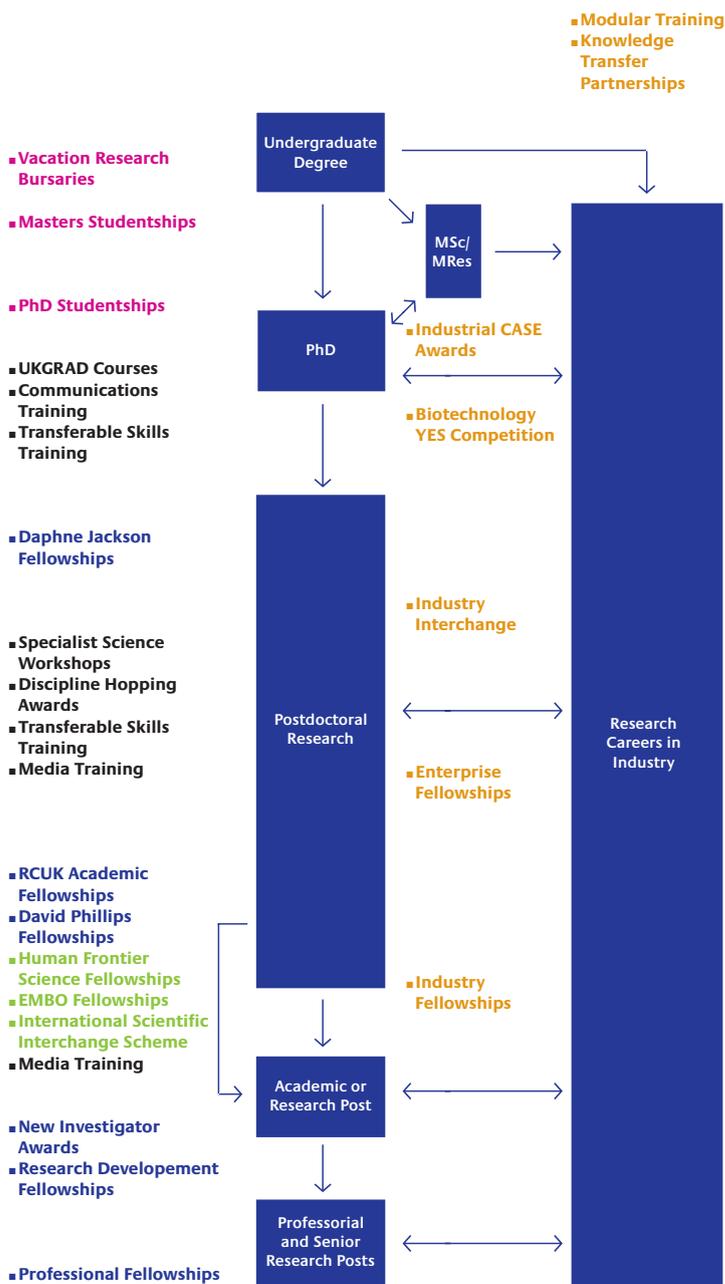
In conjunction with the other research councils, we support the RCUK (Research Councils UK) **Academic Fellowships**. These fellowships were established following the Roberts' Review to help provide a clear career path from postdoctoral research to permanent academic positions.

Newly employed university lecturers and researchers in sponsored institutes at the beginning of their careers are eligible for **New Investigator Awards**. These awards help individuals obtain their first grant for independent research. Applications are judged against the same criteria as standard BBSRC responsive mode grant proposals; however, research potential rather than track record is considered in the application.

Our **Fellowships** provide personal funding to outstanding scientists. **David Phillips** fellowships aim to establish postdoctoral researchers as independent investigators. Our **Research Development** fellowships are awarded to promising academics seeking to pursue new research directions or collaborations. We also award a small number of **Professorial** fellowships to exceptional scientists at the height of their careers. In addition, we support the **Daphne Jackson** Memorial Fellowships ([www.daphnejackson.org](http://www.daphnejackson.org)) designed to help individuals who have had a career break return to research.

[www.bbsrc.ac.uk/funding/fellowships](http://www.bbsrc.ac.uk/funding/fellowships)

We support the training needs of both academia and industry.



## Working with Industry

We help scientists develop an awareness of the commercial potential of their research and enable them to work with scientists in industry.

We coordinate the **Biotechnology YES (Young Entrepreneurs Scheme)** with the University of Nottingham. This scheme is open to teams of postgraduate students and postdocs and includes an intensive workshop where leading figures from industry and business help participants develop hypothetical business plans.

The **Research Councils Business Plan Competition** helps researchers commercialise an existing scientific idea. Through a mixture of workshops and mentoring participants receive support to help realise their ambition and set up in business. **Enterprise Fellowships** provide a year's salary and support to researchers to help them develop a business idea.

The **Modular Training for Industry** scheme provides funding for the development of flexible training courses for graduates working in industry.

We have several schemes to directly support collaboration with industry. **Industrial CASE (Cooperative Awards in Science and Engineering) Studentships** provide PhD students with training and supervision from both academics and industrial partners. **Knowledge Transfer Partnerships** allow scientists to work at the interface between academia and industry, while **Industry Fellowships** and our **Industry Interchange** programme encourage the transfer of people and ideas between industry and academia, and vice versa.

[www.bbsrc.ac.uk/business](http://www.bbsrc.ac.uk/business)





We help universities and research institutes plan their training.



### Case Study

**Fangzhu Zhang** received an Industrial CASE award in 2002. This has enabled her to work with the University of Southampton and an industrial partner, Vitacress, on improving the quality and shelf life of salad products.

This award provided Ms Zhang with high quality research training and the opportunity to interact with scientists in both academic and industrial settings.

### International Links

BBSRC helps researchers maintain their competitive position at the forefront of international science. We provide funding for international travel and collaboration through our **ISIS (International Scientific Interchange Scheme)** and partnering awards. We also fund international workshops to establish and support international research contacts. Together with MRC (Medical Research Council), we provide the UK subscriptions to international funding schemes such as **EMBO (European Molecular Biology Organisation)** and **Human Frontier Science Programme** Fellowships.

[www.bbsrc.ac.uk/international](http://www.bbsrc.ac.uk/international)

BBSRC is the managing partner of the UK Research Office in Brussels, the UK's leading information and advice service on European Union funding for research, higher education and training.

[www.ukro.ac.uk](http://www.ukro.ac.uk)



### Specialist and Transferable Skills

We sponsor **Discipline Hopping Awards** with MRC and EPSRC (Engineering and Physical Sciences Research Council) providing funding for researchers to take their skills to new field. For example, if you are a physicist who wants to apply your skills to biological questions, or a biologist who wants to develop engineering skills these awards could help you realise your goals.

Where institutions have BBSRC-funded students or postdoctoral researchers, we provide funding to support **transferable skills** programmes and other opportunities for generic skills development. We also run **Media and Communications** courses throughout the year for BBSRC-funded students and researchers.

[www.bbsrc.ac.uk/news](http://www.bbsrc.ac.uk/news)

[www.bbsrc.ac.uk/funding/news](http://www.bbsrc.ac.uk/funding/news)

[www.bbsrc.ac.uk/support/communicate/training](http://www.bbsrc.ac.uk/support/communicate/training)

**UKGRAD** is jointly funded by the Research Councils to promote and provide broader employability and careers training to postgraduate students. All BBSRC-funded research students can attend a UKGRAD residential training course free of charge during their studentship.

[www.grad.ac.uk](http://www.grad.ac.uk)



### Case Study

**Ben MacArthur** has undergraduate and postgraduate degrees in Mathematics. He undertook postdoctoral research in the area of cell biology with support from a Discipline Hopping Award. Now working in a multi-disciplinary team on tissue

engineering at the Bone and Joint Research Group at the University of Southampton, Dr MacArthur has since won research grant funding from EPSRC.



BBSRC annually invests c£300M into the UK biosciences community, supporting 5,000 scientists and training 2,000 postgraduate research students.

The Biotechnology and Biological Sciences Research Council (BBSRC) is one of eight Research Councils sponsored through the Government's Office of Science and Technology.

Our mission is to fund internationally competitive research, to provide training in the biosciences, to encourage opportunities for knowledge transfer and innovation and to promote public engagement and dialogue about bioscience issues.

**For further information please see**  
[www.bbsrc.ac.uk](http://www.bbsrc.ac.uk)

### Further Information

Quality Assurance Agency (QAA)  
[www.qaa.ac.uk](http://www.qaa.ac.uk)

Roberts' Review  
[www.hm-treasury.gov.uk](http://www.hm-treasury.gov.uk)

Daphne Jackson Trust  
[www.daphnejackson.org](http://www.daphnejackson.org)

RCUK (Academic Fellowships, Business Plan Competition)  
[www.rcuk.ac.uk/activities](http://www.rcuk.ac.uk/activities)

Enterprise Fellowships (administered by the Royal Society of Edinburgh)  
[www.royalsoced.org.uk/research\\_fellowships/bbsrc.htm](http://www.royalsoced.org.uk/research_fellowships/bbsrc.htm)

Industry Fellowships (Royal Society)  
[www.royalsoc.ac.uk/funding](http://www.royalsoc.ac.uk/funding)

European Molecular Biology Organisation  
[www.embo.org](http://www.embo.org)

Human Frontier Science Programme  
[www.hfsp.org](http://www.hfsp.org)

Discipline Hopping Awards (BBSRC, EPSRC, MRC)  
[www.mrc.ac.uk/index/funding/funding-specific\\_schemes](http://www.mrc.ac.uk/index/funding/funding-specific_schemes)

Biotechnology YES  
[www.biotechnologyYES.co.uk](http://www.biotechnologyYES.co.uk)

UKGrad  
[www.grad.ac.uk](http://www.grad.ac.uk)