

## Graduate Programme

**The Babraham Institute Graduate Training Programme aims to enable students to become leading professional scientists by encouraging good experimental design and conduct of hypothesis driven research. It also encourages the communication of scientific results and ideas within the Institute and also to the larger scientific community. Students are encouraged to make full use of the expertise and skills training available at Babraham and within the University of Cambridge. All of our Research Council quota studentships are now funded for up to four years. Recent external assessments of the Institute Graduate programme have been excellent.**

### Student Support and Supervision

Babraham has the status of a recognised postgraduate institution within the University of Cambridge and all our students are registered within the Faculty of Biology for the PhD degree. In addition, our group leaders are full University supervisors and the Institute Director acts as a 'Head of Department'. Babraham is proactively involved with The Graduate School of Life Sciences within the University which coordinates and provides training, network and career support for all postgraduate students in the biological sciences in Cambridge. Babraham students account for 5% of the total postgraduate population of the School of Life Sciences.

Within the Institute each student has a 'Supervisor', with whom he or she has day to day contact to plan and monitor work (particularly during the first few months). Another point of contact within the Institute is the 'Mentor': usually someone working in a similar field, the Mentor acts as a second point of call for the student and can offer broad advice on experimental design and thesis planning. In addition, each student has an 'Assessor'. This person is from another research group or may be from outside the Institute, and acts to independently review the student's progress. Formal assessments occur at fixed points throughout the 3 or 4 years of the PhD course, however progress is monitored continually by the supervisory team in association with the Graduate Committee.

### The Graduate Committee

The Graduate Committee consists of six Group Leaders, two heads of management, the knowledge transfer officer and four student representatives. The Committee has a variety of functions including the recruitment of new students, the monitoring of student progress, coordinating pastoral care and supervising student transferable skills training. It is also the main body through which student issues are represented on the Babraham Executive Committee.



Graduate students run hands-on projects for secondary and sixth form pupils during Schools' Day.

### Formal Training

In addition to training given in the laboratory, the Institute offers a variety of courses to equip students with a range of transferable skills suited to future job markets. The training courses are continually monitored and updated by the Graduate Committee via feedback from the students.

They consist of a number of compulsory core courses together with optional training courses individually tailored

to the needs of each student. Students get the opportunity to experience teaching small groups of University undergraduates in supervisions and, in addition, to demonstrate and explain research techniques to sixth form students during the Institute's Annual Schools' Science Day. The Graduate Committee oversees a training credit system to ensure that every student accumulates the level of transferable skills training required by the Research Councils.

The following are just some of the courses available to students:

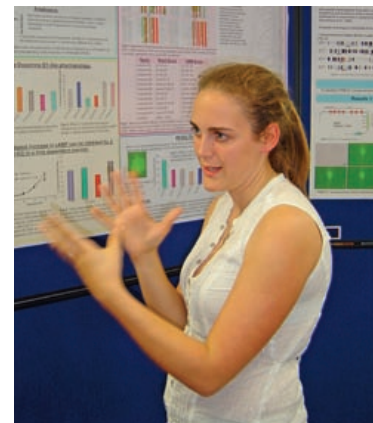
- Experimental design and Data Management (GLP, HO courses)
- Research environment: ethics, funding, health and safety
- Communication skills: oral presentation, effective poster production and presentation, scientific writing, team working and leadership skills
- Interpersonal skills: career, networking, time management
- IT skills: Microsoft Office software, www, e-mail, bioinformatics, reference management
- Science in the Commercial Environment: intellectual property, entrepreneurship and business planning, CRAC courses

### Student life at the Babraham Institute

At Babraham students have good opportunities to meet up with each other and with post-docs and researchers from the Institute and the Bioincubator, both informally over coffee in the Forum or during organised courses and seminars or other formal presentations. The student web page offers useful information about courses and lectures as well as bus timetables and an archive of photos from previous student parties. The Graduate Committee arranges a couple of parties a year which are held on site as well as a summer barbecue. In addition, students have the option of joining the Institute's Sports and Social Club which organises trips, parties and the bar on site.

All students are also members of a Cambridge College which provides additional sporting, social and cultural activities with other students from a range of different backgrounds and interests. Student life in Cambridge is very lively with hundreds of societies representing a range of interests from football to opera. Colleges generally provide graduate student accommodation at least for the first year of the PhD, however the quality and cost varies greatly. Colleges also provide an additional network of pastoral support through College Graduate Tutors and the University Counselling Service.

The Babraham Institute is uniquely placed within the University of Cambridge to provide students with excellent scientific training as well as stimulating and interesting lives outside of science. Babraham's students have played a pivotal role in a number of new initiatives within the University in the last years.



### Annual Inter-Institute Graduate Symposium

The Institute holds an event in May each year to showcase the work of its graduates; all students prepare posters and several are invited to give oral presentations to the Institute staff at a half-day conference. In 2006, Babraham's Graduate students pioneered an Inter-Institute Graduate student symposium, providing an opportunity for PhD students from different Institutes in Cambridge to present and discuss their results amongst their peers. Now an established annual event, the second symposium took place in September 2007 with presentations from 12 students selected from Babraham, The MRC Dunn Human Nutrition Unit and The MRC Laboratory of Molecular Biology. Two keynote speakers - Tim Radford, Science Editor at The Guardian newspaper and Professor Sir Howard Dalton, Chief Scientific Advisor to the UK Government's Department for Environment, Food and Rural Affairs - provided insights into alternative science-based careers, such as communicating science to a diversity of stakeholders, and discussed how controversial topics are handled by the media.



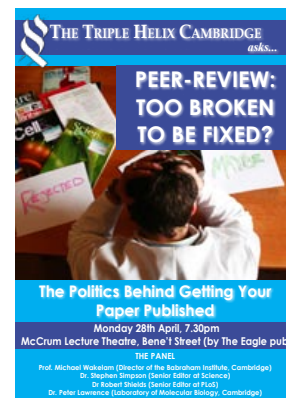
### 'Rising Stars'

How many times have you sat through a talk where the science was ground breaking yet the delivery of the material left something to be desired? Developing communications skills is an important dimension of the Graduate Programme; our PhD students are encouraged to take part in public engagement activities to gain experience in presenting their science to diverse audiences such as school pupils or the general public. Others have written articles for science-led magazines and newspapers such as 'BlueSci' produced by students at the University of Cambridge.

The 'Rising Stars' course, launched in 2006, by the University of Cambridge, aims to teach and expand students' communication skills and better equip those involved in public communication or considering pursuing careers in this direction.

"When I first heard about the course, I thought it would be the perfect opportunity to brush up on my presentation skills, but I was in for a surprise", explained Cassandra Hogan a final year PhD student. "The course deals with much more than how to deliver a good power-point presentation. Spread over four half-days, it includes an introduction to public communication, which focuses on finding the most creative way to get your subject across to the public by defining your audience and the best method of delivery. The course addresses how you appear to your audience and how you can use body language and speech to add emphasis to your talk. This includes being filmed and having it played back to you, not always a comfortable experience, but there was a lot of laughter and I learnt a lot."

These new found skills are put to the test when participants have to organise their own public engagement event. Hakim Yadi, a second year PhD student, organised a debate examining the politics behind getting your paper published in April 2007. Senior Editors from PLoS and Science were panellists alongside academics including Babraham's Director. 'Peer Review: too broken to be fixed?' drew around 150 academics of all ages, eager to air their views and press the panel for their perspectives on the peer review process. The debate continued well into the evening.



Further benefits of 'Rising Stars' include a media taster session advising how to deal with journalists to ensure that your voice gets heard and networking opportunities with other 'Rising Stars'. "I really enjoyed my time on the course and have come away with a lot of valuable skills that I shall use throughout my career," Cassandra added. "I may not be a TV biochemist just yet but watch this space..."

### Encouraging Entrepreneurship

Technology Transfer training opportunities and workshops are arranged for our younger scientists and PhD students, to improve awareness of the processes through which laboratory science is commercialised and brought from bench to bedside. Several PhD students are actively involved with the Cambridge University Entrepreneurs' Society and attend evening lectures organised by the Centre for Entrepreneurial Learning. A team of three PhD students and a post-doc entered the BBSRC's 'Biotechnology Yes' competition in 2007. The aim is to learn how to commercialise science; teams have to come up with a company and idea for a product, which can be completely made up or based on real science. The team based their company on real science arising from labs at the Institute. "We researched the science and learnt a lot about how you take an idea on a napkin to the next stage, getting funding! The highlight of the competition was presenting our company to a panel of 'acting' Venture Capitalists. It was a fantastic competition in which the whole team worked really well together. We learnt a lot about how to commercialise science and I would highly recommend it to any young scientific entrepreneur," enthused Hakim Yadi, second year PhD student.



Babraham's team won the prize for the best elevator pitch, competing against teams from Oxford, Cambridge and London Universities at the Southern Regional Final during two and a half days' intensive business training at Eynsham Hall.