

**A Reference Guide  
for  
PhD Students  
at  
The Babraham Institute**

**October 2010**

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## CONTACTS

Head of Department – Institute Director – Professor Michael Wakelam

Graduate Studies Tutor – Peter Evans – B540 or Ext. 6406 – [peter.evans@bbsrc.ac.uk](mailto:peter.evans@bbsrc.ac.uk)

Graduate Studies Administrator – Caroline Coursol – 301/6324 – [caroline.coursol@bbsrc.ac.uk](mailto:caroline.coursol@bbsrc.ac.uk)

### Graduate Committee Members

|                     |   |
|---------------------|---|
| Peter Evans (Chair) | - Inositide                             |
| Geoff Butcher       | - Lymphocyte Signalling and Development |
| Anne Corcoran       | - Nuclear Dynamics                      |
| Myriam Hemberger    | - Epigenetics                           |
| Nick Ktistakis      | - Inositide                             |
| Klaus Okkenhaug     | - Lymphocyte Signalling and Development |
| John Pascall        | - Lymphocyte Signalling and Development |
| Jenny Pell          | - Signalling and Cell Fate              |

|                    |                              |
|--------------------|------------------------------|
| Caroline Edmonds   | - Head of Corporate Affairs  |
| Jill Skinner       | - Head of Personnel          |
| Katy Evans-Roberts | - Babraham Biotechnology Ltd |

|                  |                 |
|------------------|-----------------|
| Caroline Coursol | - Administrator |
|------------------|-----------------|

There are also four graduate student representatives on the Committee

The Graduate School of Life Sciences  
<http://www.biomed.cam.ac.uk/gradschool/>

The University of Cambridge Board of Graduate Studies  
<http://www.admin.cam.ac.uk/offices/gradstud>

## PHD STUDENTSHIPS AT THE BABRAHAM INSTITUTE

The Institute usually admits about 15 – 20 new PhD students each year. It is recognised as a Partner Institute of the University of Cambridge for Graduate Studies and all our students are registered for a University of Cambridge PhD degree. The Institute only takes on full-time students and does not run an MSc programme.

The Institute organizes a PhD Recruitment Open Day in January each year to which around 40 – 50 students are invited to discuss their research interests and to view the Institute's facilities. During this day, the students make two laboratory visits, to meet project leaders and their groups, and are also given an academic interview by two other project leaders. The assessment scores from these visits, together with a score for their CV, are collated by the Graduate Committee and form the basis of offers for available studentships.

The Institute receives funding for a number of quota research studentships and quota CASE (Cooperative Industrial Studentships) studentships from the BBSRC every year as a BBSRC Departmental Training Grant (DTG). It also has an MRC DTG which can support a number of other studentships. The BBSRC and MRC Studentships can be awarded for a four year period.

It is also possible for supervisors to apply for specific studentships for projects to be run in their groups by applying for BBSRC Targeted Priority Studentships and MRC Capacity Building Studentships, as well as specific studentships awarded by various charities. CASE studentships are also awarded to specific supervisors who have arranged to carry out a specific project of interest with an industrial partner.

The Institute frequently takes on students from overseas. Non-UK EU nationals can generally only be awarded studentships on a "fees only" basis and are required to obtain their living expenses from other sources unless they have been resident in the UK for three years. However, from October 2009 Non-UK EU nationals have been eligible for fully funded studentships under the Babraham Institute European Studentship programme which is jointly funded by the University of Cambridge Board of Graduate Studies (CHESS) scheme and the Babraham Institute. Non-EU nationals are not eligible for Research Council Studentships. They need to demonstrate to the University that they can guarantee funding for all three years of their PhD course before they arrive in Cambridge. They usually obtain this funding from various national scholarship schemes or from schemes like the Gates Scholarship Programme run through the University of Cambridge or the Dorothy Hodgkin Award Studentship scheme run by Research Councils UK. The University of Cambridge web-site gives more information about possible funding sources.

The Graduate Committee has the responsibility for approving all proposed graduate student projects before they are submitted for fellowship, scholarship, CASE agreements or quota applications. The Institute has strict guidelines on how many students an individual supervisor may have in their group at any one time. These are set by the Babraham Executive Committee in consultation with the Graduate Committee. Currently, they are set at no more than three students working actively at the bench with a fourth student writing up. Permission to exceed these guidelines will only be granted by the Graduate Committee in exceptional circumstances and only if the Committee is consulted before any agreement has been made between a supervisor and a potential student and before any applications for funding have been made.

## THE BABRAHAM INSTITUTE PhD STUDENT PROGRAMME

**Contact :** Peter Evans 6406

The Institute is a recognised teaching establishment of the University of Cambridge and there are approximately 60 PhD students based here. Each student has a Personal Committee of scientists to monitor research and personal progress consisting of:

- A Supervisor – who is directly responsible for the student and the research project;
- A Mentor – someone with an understanding of the subject area to provide additional support and advice where necessary
- An Assessor – someone to assess progress independently. He/she must be from a different laboratory within or external to the Institute.

### *Timetable*

|                                    |  |
|------------------------------------|--|
| On Arrival                         | Introductory programme to explain the organization of the Institute and its facilities   |
| 2 months                           | <i>Introductory Feasibility Report</i> , to ensure that students start their research with clear hypothesis-led strategies and identify potential pitfalls/hurdles<br>(Student Personal Committee reports to Graduate Committee)   |
| 8 months                           | <i>Upgrading Report</i> , for PhD registration<br>(Student Personal Committee reports to Graduate Committee)   |
| Within year 1                      | 10 minute Seminar to Research Group<br>Compulsory poster on Institute Student Poster Day   |
| Within year 2                      | 15 minute Seminar to Institute Seminar Programme<br>Compulsory poster on Institute Student Poster Day  |
| 24 months                          | <i>Thesis Plan</i> , (3 year Studentships) and <i>Draft Thesis Plan</i> (4 year Studentships) including experiments needed to complete data for thesis (Student Personal Committee reports to Graduate Committee)  |
| Within year 3                      | Seminar to Institute Seminar Programme (1 hour)<br>Compulsory Poster at Institute Student Poster Day   |
| 30 months<br>(3 year Studentships) | <i>Review of progress</i><br>(Student Personal Committee reports to Graduate Committee)  |
| 36 months<br>(3 year Studentships) | <i>Review of progress</i> – All laboratory work should be complete and thesis writing must be complete or well under way<br>(Student Personal Committee reports to Graduate Committee and Appointed Representatives on Graduate Committee follow up every 3 months until submission) |

|                                    |   |
|------------------------------------|---|
| 36 months<br>(4 year Studentships) | <i>Review of progress and Full Thesis Plan</i>  |
| 42 months<br>(4 year Studentships) | <i>Review of progress – All laboratory work should be complete and thesis writing must be complete or well under way (Student Personal Committee reports to Graduate Committee and Appointed Representatives on Graduate Committee follow up every 3 months until submission)</i> |
| 48 months<br>(4 year Studentships) | <i>Review of progress – thesis must be completed and submitted</i>  |

*Other Assessments*

|        |   |
|--------|---|
| Termly | Short self-assessment form Student/Supervisor                               |
| Annual | Easter Survey of student seminars, talks/attendance at meetings, prizes etc |

*Opportunities and requirements*

- Students are expected to attend all Babraham lectures, scientific seminars and laboratory talks.
- Students are expected to follow the training schedule as outlined in the Graduate Training and Development Booklet and to record any training credits in their Student Log Book.
- Students are encouraged to participate in the Schools' Open Day held in March each year and in the Institute Outreach programme to local schools.
- Students are expected to present their work at national and international conferences. Funding is available for travel (see Page 17).
- PhD students may have their work selected for presentation at the annual Institute laboratory talks.
- The Institute is uniquely placed in the UK, being close to several other excellent establishments involved in biological research. Students should take every opportunity to visit these and to attend their seminars (see notice boards).
- All students are registered with the University of Cambridge and therefore, with a College. It is hoped that they will participate fully in University and College life.

## STUDENT SUPERVISION

Information on the best practices to adopt for graduate supervision is provided in many places. New Supervisors must read the University of Cambridge, Board of Graduate Studies “*Code of Practice: Graduate research degrees and certificates of postgraduate studies*”: (<http://www.admin.cam.ac.uk/offices/gradstud/practice/>).

In addition, it is compulsory for all new Babraham Supervisors to attend the Introductory Course for New Supervisors run annually by the Staff development Office of the University of Cambridge.

It is the supervisor’s responsibility to ensure that the student completes all parts of their assessment, attends training courses, takes part in the Institute Schools’ Day and attends Laboratory talks and Seminar programmes as well as all Institute Lectures.

### What students can expect from their supervisor

1. Regular and conscientious guidance about their research project. This includes help with background reading (providing entry to references etc), technical help (either personally or arranging for them to be helped by others) and theoretical guidance (defining and refining the aims and rationale of the project).

2. Regular meetings. You may well see your supervisor frequently, and this is as it should be. However, there are a few designated meetings set out by the Graduate School, which have defined objectives and critical timing. They are recorded on the Student Log, which all students now have to complete. These are:

| <u>Meeting</u>                     | <u>Purpose</u>   |
|------------------------------------|--|
| Initial (term 1)                   | Outline project. Provide background reading. Agree initial techniques and research work. Discuss course work.  |
| Feasibility (c. 3 months, year 1)  | Review initial results. Assess feasibility of project. Arrange remaining courses for first year.               |
| Progress (c. 6-9 months, year 1)   | Review progress. Discuss first year report. Assess needs for second year. Discuss outline of second year work. |
| Progress (year 2)                  | Assess progress. Discuss additional training needs.  |
| Progress (year 3 thesis or year 4) | Discuss plan for thesis. Draw up timetable for completing work and writing thesis.                             |

3. Insistence that you maintain your Student Log. The accuracy of this Log is your responsibility, although the supervisor might wish to inspect it from time to time. Examiners and assessors will assume accuracy about courses etc that the student declares to have been attended, and will expect the associated knowledge.

4. Insistence that the student receives adequate specific, generic and transferable skills training. Specific skills are those associated with successful prosecution of the project; generic skills are those any research student might expect to learn (e.g. safety, computer skills, statistics, IT skills), and transferable skills are those associated with the wider world of science (e.g. IPR, ethical issues, entrepreneurship). Please note that both the University and the Research Councils now insist on this aspect of training for research students. The Graduate Education Committee (GEC), whilst recognising that needs will differ and that individual programmes are an essential part of graduate training, believe that about a half-day per week in the first year, and perhaps some courses in the second (e.g. statistics) or third years (e.g. writing a CV, writing a thesis, entrepreneurship, career guidance) will be required by nearly all graduate students. This amount of training will not interfere with your research, but will supplement it.

5. Clarity about what the supervisor expects from you in terms of laboratory, field or clinical work, contact with you, relations with others in your group, access to equipment etc and the requirements of first year reports.

### **What supervisors expect from their students**

1. To be available when requested, but also to initiate meetings themselves when appropriate.

2. Adherence to the agreed research procedures, training programmes etc. and that the student is diligent.

3. Strict adherence to good laboratory practice. This includes both using equipment safely and expeditiously, correct Home Office procedures (where applicable) and acceptable behaviour (i.e. towards the supervisor and other members of the group).

4. Correct and verifiable record keeping.

5. Active contribution not only to the practical aspects of the research, but also to its planning and initiation. This is likely to be more apparent as you progress; at first there will be considerable need for guidance, but this should diminish as the research proceeds. Students are expected to become progressively more independent.

### **Assessment of Progress**

A supervisor is expected to have day to day contact with his/her students and so will probably be the person most able to assess your progress. The supervisor will be required to make termly reports on the student's progress to both the Graduate Committee and to the University Board of Graduate Studies. These reports are open reports and should be discussed freely with you. The Institute expects the supervisor to notify the Graduate Committee at an early stage if they have any concerns. Students also make a self-assessment of their progress for the Graduate Committee on a termly basis.

Students' progress is formally assessed after 2 and 8 months and at the end of their second year by mentors and assessors as outlined in the Babraham PhD Student Programme.

**Student computers:**

The Institute Computer Strategy Committee and the Graduate Committee have agreed that it is the project leaders' responsibility to provide computer access for their students. We require that every new student is given full access to their own computer and that this access will continue until they have submitted their PhD thesis.

**Graduate School of Life Sciences (reproduced from web page)****“The Supervisor's Role**

The supervisor has primarily a teaching role. PhD students undoubtedly do have the potential to increase the supervisor's research productivity, yet a PhD (or an MPhil) is largely about training. The student needs to complete the degree with a grounding of both specialist and transferable skills, and an understanding of scientific method, creativity, problem spotting and problem solving.”

**REGISTERING FOR A PHD DEGREE?**

After 8 months at the Institute students are required to write an 8-month report containing a detailed literature review and a report on the results they have obtained to date. This report is read by the Mentor and Assessor who will submit a recommendation to the Graduate Committee whether or not to register the student formally for the PhD degree. Registration is usually retrospective to the time the student started their PhD studies.

To formally register students for the PhD degree with the University the supervisor needs to fill in the third term Registration Report for the student which has a registration section at the end. This can now be done successfully on-line at CamSIS provided that the Graduate Committee has received a positive recommendation from the student's Mentor and Assessor.

## **WELFARE AND PASTORAL CARE**

Supervisors have a duty of care to all their research students and have a responsibility to ensure that they are able to cope with any welfare issues that they may encounter during the time in their group. In most cases the sooner a problem is tackled the easier it may be to resolve, so do not hesitate to talk through any problems you may have with your supervisor.

Students at Babraham also have access to a wide range of pastoral resources which you can utilise if you feel you are not able to confide in your supervisor or they feel unable to resolve a particular problem. Thus within the Institute, students can approach other members of their Personal Committee, the Graduate Studies Tutor, any other member of the Graduate Committee they feel comfortable talking to, or any member of the Institute Staff Support Group (details on the Babraham Intranet home page). Students can also access help on welfare issues from the Graduate Tutor of their College or from the University of Cambridge Counselling Service (13/14 Trumpington Street, Cambridge, CB2 1QA, Tel No. 01223-332865).

### **Graduate School of Life Sciences (reproduced from web page)**

#### **“The University Counselling Service”**

<http://www.admin.cam.ac.uk/offices/gradstud/current/new/counselling.html>

Being a graduate student is fun, but it can also be stressful. Many of you will be new to this University, or even this country, and it is quite common to find that adjusting to the life of a graduate student takes some time. Even those of you who were undergraduates here will find life in your new role surprisingly different. This is not to say that graduate student status is a life-threatening condition, but perhaps there should be a "health warning" attached. Many students will experience some kind of emotional or behavioural disturbance at some time during their studies. A recent survey showed that one-third of students reported academic problems as giving either "quite a lot" or "a great deal" of worry. Financial and social/personal relationship problems are also relatively common. Many people experience some of the symptoms associated with such difficulties at some point in their lives. Most are just normal reactions to common life events, but sometimes they can become more serious.

In an institution that strives for excellence, the pressure to succeed can be intense, which also means that stress levels can run high. It is quite likely that you will suffer the effects of this at some stage in your post-graduate programme. If this presents you with a problem, then you may find it solved through talking to friends or family, supervisor, college tutor, or a nurse, GP or chaplain. However, there are times when it may be right to seek help away from the familiar daily environment and the University Counselling Service is there for just that purpose. You will not be alone: the Service works with around 1,000 students each year and the numbers attending are growing. It offers not only personal and group counselling and support, but access to medical help in the (rare) cases where this is needed.

(Supervisors please note the following for your students)

If you notice some of the following signs, then it is probably time to take note: persistent absenteeism or lateness, self-neglect, poor concentration and performance, impatience, changed behaviour and appearance, difficulty sleeping, difficulty in eating or over-eating, nightmares, lack of motivation, over use of alcohol/drugs, feelings of isolation, withdrawal from peer group, obsessional attitude towards work, a desire to be perfect and an unrealistic pre-occupation with failure. But, note, you do not have to exhibit all these symptoms. You may, in fact, be exhibiting some, but maybe ignoring them, or pretending they do not exist. However, if your friends spot some of these in you, then listen to them.

You may fear that in admitting to a problem you will be discriminated against academically and it may affect your future career. That is not so. The Counselling Service works to a Code of Confidentiality and will only involve other people with your explicit approval. And the University is here to help you successfully complete your post-graduate programme, otherwise it would not have offered you a place.

So, what is the message? If you, like so many of us, find that your reaction to any number of common life events makes life difficult for you, seek help from any of the sources indicated here and do it sooner, rather than later.”

## **TRAINING AND DEVELOPMENT**

When students first arrive at the Institute they attend a compulsory Graduate Induction Programme for their first week. The aim of this course is to provide a foundation in key skills needed for future work and assessment. It introduces essential topics such as: ‘good laboratory practice’ and experimental design, basic computing and statistics, library skills, molecular biology and database mining, safety, animals and the Home Office, intellectual property and provides a tour of the Site including specialist equipment.

In the First Year students will attend a number of courses designed to meet their specific needs as well as the following compulsory courses:

- Induction (inc. Health and Safety)
- Statistics
- Presentation skills
- Technical writing
- Poster production and presentation
- Time Management
- Team Development
- Equality and Diversity Awareness
- Harassment Awareness
- Poster Design

In the Second Year the students will attend the following compulsory courses:

- Intellectual property & Knowledge Transfer
- From PhD to Professional
- Writing a research fellowship application

Year 3 is kept as free from courses as possible so that students can focus on laboratory based research.

See the Graduate Training & Development Guide for more information or contact the Graduate Training Officer, Caroline Coursol (ext.6324)

The Babraham Graduate Programme, in association with the University School of Biological Sciences Graduate School, requires that students record their attendance at training courses in their “Student Log”. Credits are given for courses attended and for other activities where training is gained through experience. Students are expected to attain a minimum of 60 credits in Transferable Skills Training during the course of their PhD. Full details of this scheme are given in the Babraham Institute specific pages of your Personnel Log which is issued to you during Induction Week (See Pages 22-31 for an example).

## SUBMITTING YOUR THESIS

### How examiners are appointed

Full information is given on the Board of Graduate Studies website (<http://www.admin.cam.ac.uk/offices/gradstud/>)

About three months before submission the Board will write to you at the appropriate time to tell you what to do. (However, they do not seem to be doing this currently, so do not rely on them to contact you!)

#### 1. Submission date

You must not submit your dissertation before the first day of your 9th full-time (15th part-time) term for the Ph.D., unless you have been granted exemption from up to 3 full-time (5 part-time) terms of research.

You are expected to submit by the last day of your 4<sup>th</sup> year of study unless you have been granted permission to defer submission by the Board of Graduate Studies. If you do not do this your name will be removed from the University Register of Graduate Students. It is extremely important that you meet this deadline since the Institute could be penalised if you do not submit within 4 years.

#### 2. Deferring submission

If you are not ready to submit within 21 days of your deadline, you may apply for an extension on a form available from the Board. This requires a written endorsement from your supervisor. When seeking an extension, be realistic about the date of your submission. There is heavy pressure on Departments for all PhDs to be submitted within 4 full-time (7 part-time) years of starting. Your Degree Committee may not agree to grant an extension beyond 4 (7) years, except in cases of illness (supported by a medical letter) or other grave cause.

#### 3. Applying for appointment of Examiners

You should apply for the appointment of Examiners at least two months in advance of submitting your dissertation on an **Appointment of Examiners Application Form** which is available from the Linda Notton or Peter Evans. The appointment of Examiners may take some time, particularly if your application for appointment is submitted during a Vacation.

In your application you should:

propose the exact title of your dissertation (see 3 below) and the date upon which you propose to submit it, and  
enclose with your application three copies of a short summary (1 page of A4) of the contents of the dissertation (see 5 below).

You will be expected to adhere to the date you propose for the submission of the thesis.

If you expect to leave the country soon after submission you must bear in mind that you will be expected to attend a viva voce (oral) examination in this country. You should state on the application form for the appointment of Examiners the proposed date of your departure, allowing at least eight weeks between the date of the submission and the proposed date of departure.

The Degree Committee will do its best to arrange your oral examination as quickly as possible, but please bear in mind that it is sometimes difficult to find a suitable examiner, or the most suitable person may not be free to act within a tight timetable.

#### **4. Approval of the Title**

The subject of your research is provisionally approved at the time of your admission and confirmed in more specific terms when you are registered as a candidate for a research degree.

Before your thesis is finally typed and bound, when applying for Examiners to be appointed, you should propose the precise title of your thesis. Your supervisor should indicate his or her support for the title; this is then submitted to your Degree Committee and to the Board for approval.

#### **5. The Summary**

The summary must be written in English and should consist of a piece of connected prose forming an abstract of the dissertation and be about 300 words in length. If at all possible, it should be accommodated on one side of A4 sized paper. It should bear your name and the exact title of your dissertation at the head of the page.

If you submit a soft-bound thesis in the first instance, you will need, when submitting the final, hard-bound, copy of your thesis, to provide a further, loose-leaf, copy of this summary, identical to that bound into the final version, for the University Library file.

The summary will be considered by the Examiners and, if the dissertation is approved, the summary will normally be deposited in the University Library for consultation and inter-library loan.

**NOTE:** Babraham students are also required to deposit a copy of their thesis with the Babraham Library. The costs of the production of this copy of the thesis will be met by the Institute (Please see Babraham Librarian – Jennifer Maddock for details of reimbursement).

## **FINANCIAL ASSISTANCE**

### **Cambridge Philosophical Society**

Students are strongly encouraged to become members of the Cambridge Philosophical Society as soon as they arrive in Cambridge. The Society was founded in 1819 “for the purpose of promoting scientific inquiry”. Members receive information on the termly series of lectures organized by the Society at which distinguished Cambridge scientists and outside speakers give talks on areas of scientific progress. (See page 17 for information on the Society’s research Studentship Fund and travel grants).

### **Exemption from paying University/College fees when you are writing up**

After students have completed 9 terms of research and are no longer using experimental facilities when they are writing up, they can make an application to the Board of Graduate Studies to get an exemption from paying the University Composition Fee (see below how you should go about doing this). Students can also approach their College for a parallel exemption from paying College fees. The student’s College Graduate Tutor should be able to help them seek this College exemption

### **Applying for Exemption from the University Composition Fee (reproduced from web page)**

“You are liable to pay the University Composition Fee for each term you reside in Cambridge up to and including the term in which you submit your dissertation unless you apply for, and are granted, exemption from paying it.

Exemption may be granted to you if you are in residence and have completed the minimum number of terms required and are not making substantial use of University facilities. Students who go out of residence after completing the minimum number of terms of research are not liable for further payment of fees and need not apply for exemption. The minimum number of terms for full-time students is 9. The minimum number of terms for part-time students is 15.

If you are eligible and would like to apply for exemption from fees, you will need to complete an Exemption from payment of the University Composition Fee Application Form which is available from the Board. The Board will forward your application to your Degree Committee for consideration on receipt of your application.

The Exemption from payment of the University Composition Fee Application Form is available to download in PDF format. Further information on PDF files is available.”

### **What further funds are available for students when their studentship finishes and they still have not finished their PhD?**

There are a number of funds which can be accessed to provide additional support at the end of a studentship if a student overruns. These include both University and

College hardship funds and specific grants from the Cambridge Philosophical Society (see details below but note that you need to have been a member for over a year to access the funds).

### **Research Studentship Fund (reproduced from web page)**

“The Cambridge Philosophical Society has established a Research Studentship Fund for the award of one or more studentships or grants for research in any of the natural sciences or any branch of technology or mathematics. The purpose of these awards is to provide for the continuation of an exceptionally promising piece of research beyond the usual standard of the PhD or alternatively to allow extra time for the completion of a PhD thesis which has been delayed by circumstances outside the applicant's control. Awards will be tenable for a period not exceeding three months and will be made at rates comparable to Research Council maintenance grants. The Society cannot make any contributions towards fees, travelling expenses, etc.

Applicants for awards must be Fellows of the Philosophical Society of at least one year's standing at the closing date for applications. They must be Registered Graduate Students of the University, though in exceptional circumstances this latter condition may be waived. In making awards the Society will have regard to the specific piece of research proposed, to the proven ability of the applicant, and to the other sources of funds for which the applicant may be eligible. Applicants should describe the aims of their research and report on progress to date including a full explanation for any delays which have occurred. A reasoned estimate of the time necessary for these research aims to be achieved should be provided.

Each applicant should ensure that their application is supported by written statements from their supervisor and one other referee which should be sent **IN CONFIDENCE** to the Executive Secretary at the Society's office to reach her no later than the closing date.

Applications for awards must reach the Executive Secretary of the Society by 1 FEBRUARY, 1 MAY, 1 JULY or 1 NOVEMBER. Payments will be made at agreed intervals after application to the Treasurer of the Society. Successful applicants will be required to furnish a report of the work carried out during the tenure of the award.

Application forms are available from the Executive Secretary, Cambridge Philosophical Society, Arts School, Bene't Street, Cambridge CB2 3PY (telephone 334743).”

NB: Applicants should also seek other possible sources of funds, including their College and Department.

### **Travel Grants**

“Application forms for travel grants are available to print off as [Word](#) or [PDF](#) documents.

Please:

- print clearly using black ink.

- ensure you append a brief statement of the relevance of the proposed travel to your research.
- ensure that a letter of support is sent to the Society's office by the closing date. In the case of a Graduate Student the letter should come from the Supervisor.
- submit original application form, photocopies are not acceptable
- ensure that your application is submitted before you travel
- give details of your funding body if you are a Graduate Student
- make full enquiries about the availability of air or rail tickets at low cost, to ensure that the estimated travel expenses given in the application form are the lowest that are possible

Note:

- closing dates for applications are 1 February, 1 May, 1 July and 1 November
- grants are usually between £50 and £250
- preference will be given to projects involving the promotion of research rather than the presentation of results.”

## AFTER YOUR PHD

In thinking about what to do after your PhD your first port of call should be to discuss options with your PhD supervisor and seek advice from the post-docs in your existing laboratory. You may wish to continue in academic research, undertake research in a commercial/industrial environment, move into scientific writing/publishing, or scientific management (for example, working for organisations such as BBSRC or medical charities such as Cancer Research UK). There are increasing numbers of jobs in scientific PR/communication and Caroline Edmonds (caroline.edmonds@bbsrc.ac.uk) or Claire Cockcroft (claire.cockcroft@bbsrc.ac.uk) in Corporate Affairs are always happy to talk to people about such positions. Alternatively you may wish to use your scientific skills in another arena altogether, such as patent law, management consultancy (eg Deloitte, Ernst and Young), accountancy or teaching (at secondary or tertiary level). All manner of options can be found through the University Careers Service (link to <http://www.careers.cam.ac.uk>).

Whatever your decision there are trade-offs to be made. For example, Industrial salaries are significantly better and you may get other benefits (e.g., private health insurance). However, depending on the company, you may not be able follow-up your own research ideas and have the same scope for originality - and your project might shut-down with 24 hours notice! Academic research may be exciting and intellectually rewarding but the pay is not going to keep you in Gucci or Armani. In addition, only a small fraction of those who go on to do a post-doc will ultimately get a group leader position and there are few 'permanent' positions for non-group leader, PhD level research scientists in academia. On a more positive note, there is currently a shortage of good post-docs in the UK and it is increasingly possible to change from the public to the private sector and vice versa.

Regardless of the choice you make, perhaps the most important thing is to start looking for positions as early as possible. In realistic terms this means you should be thinking about your options at the beginning of your third year.

### **Jobs in the Commercial Sector.**

If you are looking to move into positions in the commercial sector, positions in scientific writing or patent law then it is a little more difficult to plan ahead as you are dependent upon the available vacancies. The best bet is to regularly check [New Scientist](http://www.newscientistjobs.com) (<http://www.newscientistjobs.com>) or [Nature](http://www.nature.com/naturejobs) (<http://www.nature.com/naturejobs>) and other web sites that can be found through the 'Jobs and Career Link' page within the Post-Doc Web Page on the BI Intranet.

However, there are some more pro-active things you can do. Talk to companies that you are already interested in (this shows motivation and initiative on your part). Arrange introductions to specific companies from your Supervisor or through [Derek Jones](mailto:derek.jones@babraham.co.uk) (derek.jones@babraham.co.uk) in the Commercial Office (e.g. for companies in the Bioincubator, Patent Lawyers used by Babraham). Is it possible to arrange short-term placements or work shadowing? This should help to give you an idea of what science in the commercial sector is like.

## Post-Doctoral Research Positions.

The need to start looking early is of fundamental importance if you wish to stay in academic research. The chances of stumbling upon an advert for your 'dream post-doc' the day that you submit your thesis are slim to say the least. In reality you will find the best position by making yourself as strong a candidate as possible and actively pursuing the labs that you want to work in. Below are a few guidelines to help you.

1. So why do you want to do a post-doc ? It is probably a good idea to ask yourself why exactly you want to do a post-doc. There are lots of good reasons, of which the best is probably that the field of research is one that you find exciting and you are interested in an academic career. Equally there are lots of bad reasons for doing a post-doc including 'didn't know what else to do'. Many principal investigators (PIs or project leaders) will be looking for committed and motivated individuals who are able to work independently without having their hand held. Other PIs will be content with individuals who do what they're told, work hard and won't panic when things go wrong. If neither of those is you then perhaps you should think seriously about alternative career options.

It's worth remembering that your PhD is the period in which you are trained to be an independent researcher whilst the post-doc period is all about putting that training to work by showing what you can do as an independent researcher. In this sense the success of your post-doctoral position(s) (which will basically be judged by the number of papers published) will directly determine whether you are successful in securing a fellowship or PI position.

2. Make the first move. Identify labs or PIs that you'd particularly like to work with and contact them as early as possible. If you apply for a position when it is advertised you may well be competing with dozens of people, including internal candidates who may have important local knowledge that gives them the edge. Making the first contact shows a level of motivation on your part and may help you 'get a foot in the door'. In addition, if you contact a PI and they are impressed with you this may provide a chance for them to include you as a 'named researcher' on a grant application. One advantage of this is that named researcher status can sometimes help (though not guarantee) a slightly higher salary. For example, if a PI applies for a research council or charity grant and has no particular member of staff in mind for the post (i.e. puts 'to be appointed' in the staff box) the salary will, as a matter of course, be funded at the bottom of the post-doc salary scale. In contrast, if you are a named researcher then the PI can argue that the application has been written around your particular skills and seek to justify a higher salary for you.
3. The early bird..... If you are planning to contact a particular PI then you should do this at the start of the 3<sup>rd</sup> year. The PI may be happy to write a grant with your name on but this whole process (grant writing, review of grant, decision, acceptance paperwork) can take 9 months or even a year. The same applies if the PI wants you in his/her lab but wants you to write your own Fellowship. If the PI is overseas then you will also need to include the time taken for Visa/Work Permit applications, etc. In the case of the USA this may

currently be even more protracted than a grant application due to recent changes in homeland security policy.

4. Meet the PI, visit the lab, give a seminar and leave them begging for more! It may sound obvious but you should try and meet potential PIs on an informal basis before committing to work in their lab. After doing a PhD you should have a good idea of what kind of supervisor and supervision works for you, so try and find someone you can establish a good rapport with. Try to meet up with particular PIs at scientific meetings and/or make a visit to their lab? Make sure you talk to current postdocs/students in their lab, independently of the PI if possible, to find out what they think of working in the lab, cost of living, transport, practical details of working in that lab etc. These are very important in making your decision. In addition, if you have set your heart on working overseas (e.g., the USA) then arrange to visit labs on your way to or from a conference in the USA. That way you won't have to pay for separate trans-atlantic flights. Volunteer to give a seminar of your PhD work; not only is it the very best way to sell yourself and show the prospective PI how great you are but PIs will pay for your hotel accommodation for the night and even contribute to airfares if you are a 'speaker'. Indeed, it is often possible to arrange a 'tour' of several labs and if you can arrange to speak at a Biotech/Pharma company the honorarium they pay may even help you to 'break-even' on the trip!
  
5. Fellowships. If you are approaching the end of your PhD then there may only be a limited number of fellowships that you can apply for. For example, you may be too young to apply for 'Senior' Fellowships or you may not have had long enough to 'prove your potential'. Competition is extremely tough and good candidates with good proposals may be unsuccessful simply because there is not enough money to fund all the strong candidates. Consequently, fellowship review panels will not only be looking for a good original proposal but also a proven track record of success. The reality is that if you're in the last year of your PhD and your work hasn't been written up and published yet you will almost certainly be wasting your time in applying for many fellowships. For more specific information and advice on fellowships you should contact [Wolf Reik](mailto:wolf.reik@bbsrc.ac.uk) ([wolf.reik@bbsrc.ac.uk](mailto:wolf.reik@bbsrc.ac.uk)) who runs a fellowship application and refereeing course on a 'by need' basis - approx 3-4 times a year.

## **Example Babraham Institute Student Log**

**Student:**

**Department:**           **The Babraham Institute**

**Supervisor:**

**Mentor:**

**Assessor:**



**Student:****Department: Babraham Institute****Supervisor:****Mentor/Assessor:**

Your Personal Progress Log serves as a record of your transferable skills training participation and attainment as a Graduate Student. Its purpose is to help you to plan your own training and to record the outcomes. As well as gaining valuable skills through the training itself, you will find that the information accumulated in this Log will prove helpful when you come to rewriting your CV and applying for jobs. The document belongs to you and it is your responsibility to keep it up to date.

First Year Assessment: your Log is an essential part of your First Year Assessment and must be submitted (signed) with your first year report.

Final Examination: The Degree Committee reserves the right to call for your Log, and a copy should be provided to your Department. Make sure your Log is in a final form and up to date when you submit your dissertation.

On certain pages you will notice a column for your supervisor to sign to indicate that you have participated in the activities described. It is your responsibility to ensure your supervisor is aware of the training activities you have undertaken.

You should sign the appropriate statement below when you submit your Personal Progress Log:

**First Year Report:** I confirm that the information I have given in this Log is a true and accurate record:

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Thesis Submission:** I confirm that the information I have given in this Log is a true and accurate record and that I have provided a copy to my Department:

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Student:****Department: Babraham Institute****Supervisor:****Mentor/Assessor:**

## **SECTION 1. How to Use Your Student Log**

Your Student Log is intended as a means of recording and reviewing your transferable skills training (TST) attainment. The varied backgrounds and prior experience of graduate students means that this training needs to be tailored to the needs of the individual. You should discuss your TST requirements with your supervisor at the start of your first year, and you are advised to re-evaluate your progress regularly – at least at the beginning of each subsequent year. It is particularly important to carry out such a review at the start of your first year to help you make the most of your time in Cambridge. The Institute's Training Officer or Head of Personnel are also available for advice.

During the course of your study in Cambridge, you will be expected to engage in about 10 days (or equivalent) of transferable skills training per year for the first three years. These are recorded in the form of 'credits', one credit being the equivalent of a half-day. Thus, you should achieve a minimum of 60 credits over the duration of your PhD. This does not mean that you will have to attend 10 days of formal courses. Many TST activities, such as presenting your work at a seminar, or writing a report, are part of every day life at the Institute. You will be issued with a programme of compulsory activities (Section 3), some of which will be Institute-based, others of which may involve attendance at Graduate School or University-run courses. It is likely that this compulsory programme will be heavier in your first year than in subsequent years. Having considered this compulsory element, it will then be up to you and your supervisor to determine what other TST needs you have and to ensure that you meet them. These optional elements may include activities from demonstrating to undergraduates, to writing a scientific paper or attending a course in Project Management. You should record your participation in TST in this Log using the credit system described below.

### **How the Credit System Works**

A credit is approximately equivalent to half a day's training. To complete the equivalent of about ten days TST per academic year you should therefore aim to achieve approximately 60 credits over the course of three years. This need not be spread uniformly over the three years; indeed you may well find that it is appropriate to undertake more training activities during your first year. Some activities, such as attendance at a formal course, will be credited pro-rata, e.g. attending the two-day Presentation Skills course will earn you four credits. Other activities, such as writing your First Year Report, receive credit for the transferable skills element only, and will therefore earn your two credits. Credits for compulsory activities will be assigned by the Institute. Credits for Graduate School courses and other activities will be assigned by the Graduate School, and will be listed on the School website: <http://www.biomed.cam.ac.uk/gradschool/skills/trans-courses.html>

*The website lists all courses run and booked through the Graduate School, and hosts an on-line booking system. It also has details of, and links to, courses provided elsewhere in the University, such as those offered by the University Computing Service.*



**Student:****Department: Babraham Institute****Supervisor:****Mentor/Assessor:**

## SECTION 3. Compulsory Training Courses – Academic Year 1

| <b>Courses</b>                   | <b>Date attended</b> | <b>Credits awarded</b> | <b>Comments</b> | <b>Supervisor's signature</b> |
|----------------------------------|----------------------|------------------------|-----------------|-------------------------------|
| Induction                        |                      | 6                      |                 |                               |
| Statistics                       |                      | 2                      |                 |                               |
| Presentation skills              |                      | 3                      |                 |                               |
| Technical writing                |                      | 2                      |                 |                               |
| Team Development                 |                      | 2                      |                 |                               |
| Time management                  |                      | 1                      |                 |                               |
| Equality and Diversity Awareness |                      | 1                      |                 |                               |
| Harassment awareness             |                      | 1                      |                 |                               |
| Poster design                    |                      | 2                      |                 |                               |

**For further information on Credits see the Graduate Training and Development Brochure on the Babraham Institute Intranet – Student website**

**Student:****Department: Babraham Institute****Supervisor:****Mentor/Assessor:****SECTION 3. Compulsory Training Courses - Academic Year 2**

| <b>Courses</b>                            | <b>Date attended</b> | <b>Credits awarded</b> | <b>Comments</b> | <b>Supervisor's signature</b> |
|---|----------------------|------------------------|-----------------|-------------------------------|
| Intellectual Property                     |                      | 1                      |                 |                               |
| From PhD to Professional                  |                      | 2                      |                 |                               |
| Writing a research fellowship application |                      | 1                      |                 |                               |

**SECTION 3. Compulsory Training Courses - Academic Year 3**

| <b>Courses</b>            | <b>Date attended</b> | <b>Credits awarded</b> | <b>Comments</b> | <b>Supervisor's signature</b> |
|---------------------------|----------------------|------------------------|-----------------|-------------------------------|
| How to Submit your Thesis |                      | 1                      |                 |                               |
|                           |                      |                        |                 |                               |

**For further information on Credits see the Graduate Training and Development Brochure on the Babraham Institute Intranet – Student website**



**Student:****Department: Babraham Institute****Supervisor:****Mentor/Assessor:**

### **SECTION 5. Other Compulsory Training and Development Activities/Experiences**

| <b>Academic Year 1</b>          |             |                        |                 |                               |
|---------------------------------|-------------|------------------------|-----------------|-------------------------------|
| <b>Compulsory activities</b>    | <b>Date</b> | <b>Credits awarded</b> | <b>Comments</b> | <b>Supervisor's signature</b> |
| Introductory feasibility report |             | 2                      |                 |                               |
| Upgrading report                |             | 2                      |                 |                               |
| In-house seminar (10 min)       |             | 1                      |                 |                               |
| Poster presentation             |             | 2                      |                 |                               |
| <b>Academic Year 2</b>          |             |                        |                 |                               |
| <b>Compulsory activities</b>    | <b>Date</b> | <b>Credits awarded</b> | <b>Comments</b> | <b>Supervisor's signature</b> |
| In-house seminar (20 min)       |             | 1                      |                 |                               |
| Journal Club seminar            |             | 1 x 2                  |                 |                               |
| Poster Presentation             |             | 2                      |                 |                               |
| <b>Academic Year 3</b>          |             |                        |                 |                               |
| <b>Compulsory activities</b>    | <b>Date</b> | <b>Credits awarded</b> | <b>Comments</b> | <b>Supervisor's signature</b> |
| In-house seminar (1 hour)       |             | 2                      |                 |                               |
| Journal Club seminar            |             | 1 x 2                  |                 |                               |
| Poster Presentation             |             | 2                      |                 |                               |
| Thesis Plan                     |             | 8                      |                 |                               |

For further information on Credits see the Graduate Training and Development Brochure on the Babraham Institute Intranet – Student Website or

<http://www.biomed.cam.ac.uk/gradschool/skills/trans-courses.html>



**Student:** \_\_\_\_\_ **Department: Babraham Institute**

**Supervisor:** \_\_\_\_\_ **Mentor/Assessor:** \_\_\_\_\_

## **SECTION 6. Final record**

Record the total credits that you accumulate during the course of your PhD in the table below.

| <b>Credits accumulated during PhD training</b> |                               |                             |                                  |              |
|--|-------------------------------|-----------------------------|----------------------------------|--------------|
|  | <b>Compulsory<br/>Courses</b> | <b>Optional<br/>Courses</b> | <b>T &amp; D<br/>Experiences</b> | <b>Total</b> |
| Year 1   |                               |                             |                                  |              |
| Year 2   |                               |                             |                                  |              |
| Year 3   |                               |                             |                                  |              |
| Total:   |                               |                             |                                  |              |