

College of Life Sciences & Medicine

Graduate School

Handbook for Postgraduate Research Students

Academic Year 2014-15

Information contained within this handbook is also available on the Graduate School website

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INTRODUCTION TO THE GRADUATE SCHOOL

Welcome to the Graduate School of the College of Life Sciences & Medicine. I'm delighted that you have chosen the University of Aberdeen and this College as the place to undertake your postgraduate studies. In coming to Aberdeen you'll be joining a large and diverse postgraduate community and a university that recognises the important contribution that postgraduate students make to research and to university life. As Director of the Graduate School, my role is to ensure that you have access to the support you need to complete your research degree and at the same time develop the skills necessary for a successful career once you have graduated. Throughout your study period you will have many opportunities to develop new skills and enhance those you already have. Right now there is a lot to take in and I encourage you to visit the <u>Graduate School website</u> which will provide you with the latest information.

Professor Bernadette Connolly
Director of the Graduate School of the College of Life Sciences & Medicine

THE COLLEGE OF LIFE SCIENCES & MEDICINE

The College of Life Sciences & Medicine is home to four academic schools (Biological Sciences, Medical Sciences, Medicine & Dentistry and Psychology) and four research institutes (the Institute of Biological & Environmental Sciences, the Institute of Health Sciences, the Institute of Medical Sciences and the Rowett Institute of Nutrition & Health.

The College aims to promote excellence in postgraduate teaching and research through:

- Providing a first class structure for postgraduate student training and assessment;
- Providing comprehensive postgraduate research training and training in transferable and generic skills;
- Acting as a central repository of information, maintaining important databases including courses, supervisors, research project areas, postgraduate students' details, studentships and other sources of funding, postgraduate destinations;
- Providing facilities and support for postgraduate students;
- Providing training and support for supervisors; and
- Overseeing postgraduate progress and assessment.

GRADUATE SCHOOL STRUCTURE

The Graduate School is managed by:

- Director of Graduate School Professor Bernadette Connolly
- Assistant College Registrar (Postgraduate) Mrs Karen Slesser

Professor Bernadette Connolly's role as Director of the Graduate School is to oversee all aspects of the administration of the school, to be responsible for the maintenance of standards and to represent the interests of postgraduate students in the senior committees of the College and the University.

CONTACT DETAILS

Professor Bernadette Connolly Room 4.31, IMS Building, Tel. (43)7360

E-mail: _b.connolly@abdn.ac.uk_

Mrs Karen Slesser Room 0:062, Polwarth Building, Tel. (43)7092

E-mail: _k.e.slesser@abdn.ac.uk_

SCHOOL POSTGRADUATE CO-ORDINATORS

The Graduate School Co-ordinators are responsible for the co-ordination, development and delivery of postgraduate training and the quality of the postgraduate learning experience. Specifically, they are involved in staff development for those who teach and supervise postgraduate students and for postgraduate officers. They play a role in policy development that affects postgraduate programmes and oversee the monitoring and reporting of postgraduate progress. Most important to you is that they oversee the day-to-day delivery of postgraduate training and they are your first point of contact if you have concerns or problems.

Biological Sciences

Professor, Chris Secombes Zoology Building, Tel (27)2872

Email: <u>c.secombes@abdn.ac.uk</u>

Psychology.

Professor Arash Sahraie William Guild Building, Tel. (27)3919

Email: a.sahraie@abdn.ac.uk

Medical Sciences

Professor Iain Gibson

Email: <u>i.r.gibson@abdn.ac.uk</u> IMS Building, Tel (43)7476

Dr Carol Munro Room 3.47/6, IMS Building, Tel. (43)7485

Email: _c.a.munro@abdn.ac.uk

Medicine & Dentistry

(Division of Applied Medicine)

Dr Nikki Mutch IMS Building, Tel. (43)7492

Email: _n.j.mutch@abdn.ac.uk_

(Division of Applied Health Sciences)

Dr Debbi Marais Polwarth Building, Tel. (43)7867

Email: _debbi.marais@abdn.ac.uk_

Rowett Institute of Nutrition & Health.

Dr Charles Bestwick RINH, Tel. 712751

Email: <u>c.bestwick@abdn.ac.uk</u>

Administrative support for postgraduate research students and supervisors are located at Foresterhill and Old Aberdeen. They will often be your first port of call for information, forms, registration, etc. They are:

Schools of Medicine & Dentistry, Medical Sciences and Rowett Institute of Nutrition & Health

Fiona Insch Tel. (43)7090 Graduate School Administrator Email <u>f.insch@abdn.ac.uk</u> Room 0.062 Polwarth Building

School of Biological Sciences

Lynn Quick Tel. (27) 2686 School Support Co-ordinator (PGR Admin)

Email: <u>sbspgadmin@abdn.ac.uk</u> Room C-102 Cruickshank Building

School of Psychology

Emily Baird Tel. (27)2228
Postgraduate Research Secretary
Email: emily.baird@abdn.ac.uk
Room G02 William Guild Building

The Graduate School is served by a **Graduate School Committee** chaired by the Director with representatives from Heads of School, Directors of Research, College Postgraduate Officers, Postgraduate Registry and the postgraduate student community. The Graduate School Committee is part of the College Management Structure and is represented on the College Executive, College Research & Commercialisation Committee and the College Teaching & Learning Committee.

Postgraduate committees chaired by the PG Co-ordinators at Foresterhill and Old Aberdeen will also meet three times per year to discuss all local PG matters. Student PG representatives from these committees are elected to sit on the Graduate School Committee.

Each School will have a Postgraduate Progress Committee. This committee is chaired by the Head of School or Division and is composed of the Postgraduate Co-ordinator (Research) and a senior member of staff from the relevant research programme. It meets on an *ad hoc* basis when problems of progress have occurred. The committee makes a formal recommendation to the appropriate University authority.

WHEN YOU ARRIVE

Unlike undergraduates, research students can begin their studies at any time of the year, although most start in October. Regardless of when you arrive there are certain things you should do as soon as possible. The <u>University New Starts</u> website contains very useful information to help you settle in. Please ensure that you have completed <u>e-registration</u> in order to obtain an email account and login details.

ACCOMMODATION

If you have not already found suitable accommodation, you should attend to this as a matter of urgency. It is difficult to concentrate on your work when you have no settled base. If you encounter problems, please inform your supervisors. You should have made contact with the University Accommodation Service before coming to Aberdeen. The address is Student Accommodation Office, Crombie Hall, College Bounds, Aberdeen AB24 3TS, telephone 00 44 (0)1224 273502 and the email address is studentaccomm@abdn.ac.uk. See also the Student Accommodation website. There is a useful section on the Study Here webpage for postgraduate students with information on accommodation and other matters. Notice boards in all the College buildings are also a useful source of independent accommodation.

MEET YOUR SUPERVISORS

Make contact with your supervisors and arrange a meeting as soon as you can. Your supervisors will show you where you will work and introduce you to key members of staff and other research students. You will be told who your adviser is within the first month. The adviser will be someone who is not directly involved in the research project but should know enough about the topic area to be able to follow the progress of the PhD.

REGISTER AT THE POSTGRADUATE REGISTRY

Attend the registration day for your school, taking any documentation with you. You should also take with you proof of identity (note: international students should ensure that they bring along their passport plus a photocopy of the following pages from the passport: (1) any pages with entry/exit stamps; (2) the personal details page with photograph; and (3) a copy of the Tier 4 visa stamp and/or biometric card (front and back). If you haven't already submitted a photograph to the Registry, please bring a passport-sized photo and you will be issued with a university postgraduate ID card. Continuing students must RE-REGISTER in each October until graduation. It is particularly important for part-time postgraduate students who are also members of staff who may easily forget to register.

REGISTER WITH THE GRADUATE SCHOOL

It is imperative that you let your Graduate School administrator know that you have arrived and have met with your supervisor.

KEEP IN TOUCH

We communicate with you mainly via your university email account on a regular basis – please ensure that your mailbox is not overloaded as this may result in you not receiving important emails. (Note: students who have studied previously at the University of Aberdeen must ensure that they use their new research student email address, rather than the previous taught student address). In addition, we keep the Graduate School website up-to-date with events, information, deadlines, etc. A number of our buildings have plasma screens on which we advertise frequently, eg seminar programmes, symposia, etc. If you have a change of address or mobile telephone number during your time with us please update your student record via the Student Portal. If you do not keep your contact information up-to-date, we cannot be held responsible if you fail to receive information sent to you by us.

INDUCTION PROGRAMME

The induction day is compulsory. Full details are available on the Graduate School website.

DEMONSTRATING AND SMALL GROUP TEACHING

The Graduate School considers that demonstrating is a valuable way for postgraduate students to learn the crucial skills associated with teaching in small groups and encourage every PhD student to undertake demonstrating, if available, during their studies.

In order to have the necessary training, students must first attend the Small Group Teaching (demonstrator) workshop. It is expected that all first-year students attend the course and second-year students may also attend if they missed the opportunity in their first year. PhD students should not undertake demonstrating until they have completed the course. This course is repeated in February and March for students who started later than 1 October 2014. Full details are available on the Graduate School website.

HEALTH AND SAFETY

The University has a duty to ensure, as far as is reasonably practicable, the health and safety of all employees and students whilst at work. You will be given access to the safety manual appropriate for your field of work as part of the induction programme. All students must read this carefully and confirm in writing that they have understood the material. Individuals are responsible for their own safety and for the safety of others affected by their work. This includes responsibility for assessing, planning and carrying out the work, emergency procedures and the safe storage and ultimate disposal of materials used. Overall responsibility rests with the supervisor and ultimately with the Heads of Schools/Institutes. Find out who your local safety adviser is and make sure you are familiar with safety training requirements for your department or research group. If you are undertaking laboratory based research you will be required to attend a University safety course (see the list of training courses on the postgraduate web site for further details). The university policies on Health & Safety can be found on the web.

RISK ASSESSMENT IN POSTGRADUATE WORK

In postgraduate research, a student's supervisor must ensure that an adequate risk assessment is carried out. The supervisor must satisfy him/herself that the student understands what needs to be done to carry out the work safely. Student and supervisor should meet before the work begins, systematically

examine the dangers associated with the work and discuss the techniques available to reduce health and safety risks to acceptable levels. The supervisor should also ensure that the student is fully aware of any 'rules' in the local safety handbook that will apply and also any applicable procedures with health and safety content covering the laboratory activities to be used.

It is mandatory that supervisors require postgraduate students to produce written risk assessments for any laboratory or fieldwork. The supervisor must approve the assessment before the work may begin.

- Students must be aware that unauthorised initiatives are not permitted. Students must at all
 time work within the scope of the risk assessment agreed with their supervisor and refer to their
 supervisor before making significant changes.
- Supervisors must tell the student where help and advice can be obtained when the supervisor is not available.

GRADUATE SCHOOL POLICIES

ANNUAL LEAVE

The Graduate School recommendation allows **up to eight weeks but no less than four weeks** (including public holidays) in each year of a research studentship, and *pro rata* for part-time students, as approved by the supervisor. Students must have any holiday requests approved by their supervisor and must be in accordance with the terms of their sponsorship where applicable. Members of staff should refer to the Human Resources procedure for annual leave.

ABSENCES FOR MEDICAL OR PERSONAL REASONS

Should you be prevented by illness from attending your studies, you should contact your supervisors as early as possible on the first day of your absence. For all periods of absence, including part days of absence, a self-certification of sickness absence form must be completed and provided to your supervisors for the first seven days of absence. Thereafter, a doctor's medical certificate is required. In the event that you require time off for personal reasons, you should discuss this with your supervisor or Postgraduate Co-ordinator who will treat this in a confidential manner. For absences greater than two weeks please notify the Graduate School as it may be necessary to suspend your studies if the absence will last longer than one month. A suspension of study stops the clock on all work and your final date of submission will be adjusted accordingly. Further information on the Graduate School Policy on Absences and the Self-Certificate can be found on the web.

MATERNITY LEAVE

As the University does not currently have a policy, the Graduate School recommends that up to twelve months leave will be approved by the Head of School. Students wishing to take maternity leave must complete an application to suspend studies. No fees will be charged during the suspension of studies but students should be aware that this may affect their status *vis-à-vis* council tax, etc. It is the responsibility of the student to check the maternity leave terms and conditions and procedures of their funder/sponsor. Students are recommended to contact the Graduate School for guidance as early as possible. Further information on the Graduate School Policy on maternity leave is available on the <u>web</u>.

PROGRESS ASSESSMENT

Our assessment system aims to ensure systematic, fair and consistent management of academic progress for all postgraduate students. Modification of the assessment timetable may occur when students do not begin study in October, are part-time, are on a four-year PhD programme or are carrying out research/field work abroad as part of their project. Individual students should always discuss their assessment programme with their supervisors and Graduate School Co-ordinator. Assessment programmes tailored to individual requirements or circumstances are possible.

Students who are not performing satisfactorily will be identified, as far as possible, during their first year by means of the nine-month assessment (see the <u>Graduate School website</u> for details of the assessment process and its possible outcomes). In any case where there is serious difficulty with progress, whether identified at the nine-month assessment or any other time, the matter can be referred to the School Postgraduate Progress Committee. This committee is chaired by the Head of School and includes the Graduate School Co-ordinator (Research) and other senior academic staff as appropriate. It meets on an *ad hoc* basis when problems of progress have occurred. After this committee has met, the student will be advised formally, in writing, of their decision, including assessment of the student's performance, which aspects of their work are deficient and whether termination of the project or transfer to another degree (such as MSc) is recommended. Copies of this letter will be sent to the Postgraduate Registry.

The University has clear guidelines on research standards, misconduct and lack of satisfactory progress and on the procedures for dealing with them. The student will have the right of appeal and full details of this process are available on the university website.

THESIS SUBMISSION

It is expected that research students will normally submit their thesis by the end of their period of registered supervised study. However, students can apply for an extension period following their supervised study for a maximum of twelve months in any one instance. Such extensions will only be granted if there are extenuating circumstances (ie where the student's work has been hampered by medical or personal or unexpected academic circumstances) and should be applied for well in advance. Students seeking an extension must be able to demonstrate evidence of progress in their research and make clear the feasibility of submitting their thesis within the period of extension being sought.

It is the expectation of research councils that full-time PhD students funded by them (BBSRC, MRC, EPSRC, NERC, etc) should submit their thesis for examination within four years of starting their programme of research. If an extension beyond 48 months is required this must be approved by the relevant research council in addition to having the approval of the university. It is the responsibility of the student and supervisor to keep the research council informed of any delays in submission.

Extensions can be granted up to a maximum of twelve months in the first instance, but the combined period of supervised study and extension period will not normally exceed the following:

PhD 48 months (full-time) or 72 months (part-time)

MPhil/MD 36 months (full-time) or 42 months (part-time)

MSc

GRADUATE SCHOOL AND RESEARCHER DEVELOPMENT UNIT TRAINING PROGRAMME FOR RESEARCH STUDENTS

The primary focus of your degree is the completion of a piece of original research leading to the successful completion and submission of a thesis. However, the development of research, generic and transferable skills is an important part of postgraduate training and as a postgraduate student you are expected to have or develop the competencies that are required of an effective researcher.

The Researcher Development Statement (Appendix 1) was developed by the Research Councils UK and sets out four domains which together encompass the different aspects of being a researcher. These are:

- A. Knowledge and intellectual abilities
- B. Personal effectiveness
- C. Research governance and organisation
- D. Engagement, influence and impact

The skills training programmes are designed to help get the most out of your degree by developing a higher level of skills competency and enhancing your employability. It is the policy of the College of Life Sciences & Medicine that research students undertake the equivalent of **ten days of training per year of study**. Courses covering a wide range of skills are available to postgraduate research students covering key areas such as:

Data analysis and problem solving Project management Written and oral communication Leadership Interpersonal skills Commercial awareness

The programme also provides information on other development opportunities for postgraduates through seminar programmes and workshops. The programmes are run by the <u>Graduate School</u> and centrally by the Researcher Development Unit. Additional courses, covering IT training are run by the <u>Training & Documentation Team</u>.

The training programme contains compulsory, essential and optional elements depending on your field of study. Information on the content of the programmes and individual courses are on the <u>web</u>. Check the website and your university email account regularly as there may be occasional alterations to times or venue.

ESSENTIAL COURSES - YEAR 1

Those courses covering the introduction to study and elements of generic skills training that every student is required to have:

- Registration;
- Induction/Getting Started;
- Nine month assessment;
- Presentation skills;

- Communicating Science;
- Poster session (Psychology only);
- Library and database management.

The following are courses that you are legally bound to attend if carrying out research in a laboratory environment:

- University safety;
- ScotPIL (if carrying out procedures with animals); and
- Radiation safety (if working with radioactive material).

If you arrive in Aberdeen at a time of the year other than October, or you miss a course for some other reason, you may attend some courses during your second year of study. If you are a part-time or MPhil/MSc student, a personal training programme can be arranged to cover your needs over your period of study. Clinicians undertaking an MD are required to attend relevant training courses. If you have any queries about the training programme contact the Postgraduate Co-ordinator.

If you cannot attend a course you have registered for any reason you must contact the postgraduate administrator: Medicine & Dentistry/Medical Sciences/Rowett: <u>f.insch@abdn.ac.uk</u>; Biological Sciences: <u>sbspgadmin@abdn.ac.uk</u> and Psychology: <u>emily.baird@abdn.ac.uk</u>.

POSTGRADUATE CALENDAR

PERSONAL PROGRESS AND MONITORING

Over the next few pages you will find listed and described the various milestones for your three/four years of research and study and a set of forms designed to help you and your supervisors monitor your progress through the training programme. This next section will thus form the basis for your own and supervisor's setting of objectives, monitoring of progress and decision-making about the mechanics (not the science) of your degree. You will be expected to refer to these pages frequently and use them in meetings with your supervisor. MSc, MPhil, part-time students and PhD students with a start date other than 1 October should adapt the calendar appropriately in consultation with their supervisors and/or School PG Co-ordinator.

Year 1 - Calendar of Events and Milestones

October	 University registration; Meet supervisors; Meet adviser; Graduate School registration; Induction course; Small Group Teaching (demonstrator) course; Getting Started workshop; and Choose core training courses. 	
November	 University safety course; ScotPIL; and Radiation safety. 	
February	 Attend second/third year presentations (SMD, SMS, RINH students only. Attend Induction course for late start students. 	
April	First research student routine progress review form.	
May	Nine month report to be submitted.	
June	 Nine month assessment to be completed; and First year presentation. 	
September	Complete e-registration to progress to second year.	

NOTE:

The timing of some of the above events may vary within Schools.

Year 1 - Notes

An initial meeting should be held as soon as possible between you and your supervisors to discuss the start of the research programme and to discuss your skills training requirements. Close personal contact between you and your supervisory team in the early stages is important and weekly meetings would not be unreasonable. In the first month you should know who your supervisors are and have established a meeting schedule. You should also have been assigned an adviser.

After three months you will be expected to have undertaken a skills review, identified your training requirements and recorded these. You should also discuss the content of your research plan with your supervisors and guidance will also be provided in the training programme. The aim is to assess your progress and give you feedback, to identify targets for the next six months and make sure everything is proceeding on schedule.

The first formal review of progress is around six months after first registration (April). The Research Student Routine Progress Review form should be completed with your supervisors as a formal record of your progress. Your generic skills requirements from your PDP should also be recorded.

The next formal review of progress is around **nine months** after first registration (June for students who start in October). The major objectives of the review are to confirm that you:

- (i) have thorough background knowledge of your project;
- (ii) can appraise key issues critically;
- (iii) can describe work already under way and illustrate its significance; and
- (iv) have a plan of future work with appropriate milestones.

Guidance on how to cope with your nine month assessment will be given as part of the training programme.

The nine month assessment consists of three elements: a written report, a ten minute presentation and a viva by an examiner who will be another member of the academic staff (not your supervisor) along with your adviser. Full details of the process are available on the <u>Graduate School website</u>. Your supervisor will review your written report beforehand, will provide comments to your examiners and will review and add comments to the viva report, but will not participate in the viva itself.

Your report should be about 3,000 words plus figures, tables and references. The total length should not exceed 10-15 pages. The following format should be adhered to:

- Title of project, names of student, supervisors and adviser;
- Statement of the questions being addressed and relevant background and initial aims of the project (3-6 pages);
- Comprehensive statement of progress to date, including a brief description of the logic of the
 research design (3-6 pages not including figures and tables). Details of research methods are not
 required, but may be requested during the oral examination. You should bring research
 notebooks to the examination;

- A research plan to cover the work over the next six months, including a clear statement of strategy and how this has changed in the light of the first year's work (1-2 pages); and
- Appropriate references, properly cited in the text according to standard journal format (the reference list will not be included in the page count).

If there is work that has been submitted as a paper or as an abstract to a meeting, the abstract should be submitted as an appendix. If a full manuscript has been submitted to a journal for publication, this can comprise a large part of your first year review. In such circumstances, you will need to agree an alternative with your supervisory team but all of the above sections must be covered.

As part of the nine month assessment you will also present a ten minute talk on your work, the date for which will be decided by your School. Feedback on the oral presentation will be provided by supervisors, adviser and other staff or students as appropriate.

You will be given an oral examination by your adviser and an examiner which normally will last about one hour. A copy of your report and your research notebook should be brought to the examination. Your adviser should be alerted to any supervisory difficulties. If the staff perceive there to be problems with the project or with your progress this will be communicated to you, your supervisors and the Head of School or Division. The outcome of the examination, together with copies of feedback on your report and oral presentation, will be made available to you, your supervisors and your Postgraduate Co-ordinator.

After the viva, the examiners can make one of two recommendations:

- 1. To progress to the second year of the PhD.
- 2. To reassess the student after two months during which time the student must complete a programme of work, set by the examiners in agreement with the supervisors.

The School *ad hoc* Postgraduate Progress Committee may be used as a forum for final decision on progression and/or assessing future progress of the student.

Students who perform satisfactorily will continue to be registered for a PhD. In the case of unsatisfactory performance the Progress Committee will recommend if the student is to be re-registered for a different degree or discontinued.

In some cases, students are registered initially for an MPhil, MRes or MSc by research, with the expectation of progressing to a PhD. They would be transferred to a PhD at this stage, subject to satisfactory performance in the nine month assessment.

Ask your supervisors to give you a practice exam!

Year 2 - Calendar of Events and Milestones

October	 Re-register for your studies. Second research student routine progress review form.
February	Attend third year oral presentations.
April	Third research student routine progress review form.
June	 Formal meeting with supervisors; and Attend first year oral presentations.
September	 Submit second year report. Complete e-registration to progress to third year.
NOTE:	The timing of some of the above events may vary within Schools.

Year 2 - Notes

Typically a student will attend an international conference during the PhD, often in the second or third year. Poster submissions will normally have been made at relevant national meetings, but the student should make at least one oral presentation at a scientific meeting during their studies. Students are encouraged to submit manuscripts for publication in scientific journals whenever possible. This must be done in close consultation with the supervisors and all co-authors. It is the responsibility of the supervisors to advise the student when publication is appropriate.

Second Year Assessment of Postgraduate Students: Report Presented in the Format of a Scientific Research Paper

Outline and Aims

All second year postgraduate students must provide a report, formatted in the style of a scientific research paper, by the end of September (24th month). A major objective of this exercise is to provide a concrete milestone that benefits supervisors and postgraduates.

The specific aims of this exercise are to ensure that all postgraduates:

- maintain practice at writing beyond their first year report;
- get experience of writing research correctly formatted for peer-reviewed journals;
- are actively working towards their PhD thesis by writing up work continuously throughout the three years; and
- maintain contact with supervisors and get continual supervisor feedback on their work.

Also by writing up the research in journal article format, we hope to encourage all postgraduates to submit their work to peer-reviewed journals before the end of their PhD. This allows feedback on the work before thesis submission, provides experience of the peer review system and will enhance the CV of the postgraduate student.

Detailed Guidelines

What should the format of the draft article be?

- All second year full-time students are required to submit to Fiona Insch (Schools of Medicine &
 Dentistry, Medical Sciences and Rowett Institute of Nutrition & Health), Lynn Quick (School of
 Biological Sciences) or Emily Baird (Psychology) in the Graduate School an electronic copy of a
 draft of a journal article based on aspects of their postgraduate work to date.
- The formatting, style and length requirements will depend on the target journal, so please consult the appropriate journal website for guidance on these matters. Make sure that you use correct formatting throughout including for figures and tables.
- You should meet with your supervisors in advance and in good time to decide what is the most appropriate material for you to submit, and to develop a timetable. If you know that you or your supervisors are likely to be away in the summer it is your responsibility to begin work on the document earlier to meet the deadline.
- Most papers have multiple authors and you must obtain a statement from each author as to what
 their contribution was to the article. The statement from the postgraduate student (who should
 be first author) specifying their own contribution should be detailed. A cover sheet should be
 attached to each copy, detailing the journal for which the paper is intended and including the
 author statements.

What will happen after I submit the paper?

The draft paper will be circulated to your adviser and to another member of staff. Review of the draft will be similar to the normal procedure for peer review of scientific articles and you will receive written comment and feedback. Your supervisors will take account of your article submission when completing the following postgraduate assessment form.

Can I put forward a paper that has already been submitted to a journal?

If you have already submitted (or had accepted) a journal article based on your postgraduate work for which you are first author, you should discuss with your supervisors whether it is appropriate for you to use this as the basis of this assessment or if it would be a more useful exercise to develop a new draft paper. This is a decision to be made between the supervisors and postgraduate. If you submit a multiple author paper already sent to a journal then it is particularly important to obtain a statement from each author as to what their contribution was, and to provide full detail of the postgraduate author's contribution.

What about part-time students or those who did not start in October?

Part-time students who are at a roughly equivalent stage to the end of a second year of full-time postgraduate study are also expected to complete this exercise and should discuss with their supervisors when would be an appropriate and realistic deadline to complete the draft paper, given their individual

circumstances. Similarly, students who started their PhD at a different time of year should meet with supervisors and agree a sensible deadline, roughly equivalent to two years of work. Once a deadline has been agreed, the student should email Fiona Insch (Schools of Medicine & Dentistry, Medical Sciences and the Rowett Institute of Nutrition & Health), Lynn Quick (School of Biological Sciences) or Emily Baird (Psychology) in the Graduate School and their School Postgraduate Coordinator to confirm what that deadline is.

Year 3 - Calendar of Events and Milestones

	For three year PhD:	For four year PhD:
October	 Re-register for your studies. Fourth research student routine progress review form. 	 Re-register for your studies. Research student routine progress review form.
February	 Thesis plan submitted; Formal meeting with supervisors and adviser; and Oral presentation. 	
April	Fifth research student routine progress review form.	 Research student routine progress review.
February	 Students commence preparation of thesis (three year studentships only). 	
March	 Student to give notice of thesis submission (three year studentships only). 	
May	 Deadline for completion of experimental work (three year studentships only). 	
June	Attend first year oral presentations.	 Attend first year oral presentations.
July	 Formal meeting with supervisors; Review and revise thesis submission timetable. 	
September	 Student to submit thesis to Postgraduate Registry. 	
NOTE:	The timing of some of the above events may	vary within Schools

Year 3 - Notes

In your third year you should have presented a more substantial talk to your colleagues and have presented your work at a national or international conference. At least one research paper should be submitted for publication; it is of great benefit to have a manuscript accepted for publication before examination. The plans for your last six months should be detailed and realistic as there is no further opportunity for open-ended experiments or data gathering. It must be made clear what work can or cannot be realistically performed in the last few weeks of research. At least six months prior to your submission date, you should agree a thesis plan with your supervisors. The importance of early planning in the third year in order to complete the thesis on time cannot be overemphasised.

For Students Registered for a Three Year PhD

There will be a workshop to help you through the last stages of your PhD. A writing-up period of approximately four months is allowed for, which is realistic only if previous written sections have been completed (ie first draft of the literature review, materials and methods and one research chapter). These previous completions will mean that the work skills involved in writing up will not need to be learned this late in the programme. Any student falling behind the agreed milestones for writing up will be referred to the Graduate School Coordinator and/or the School Postgraduate Progress Committee. You are responsible for completing and sending in your 'intention to submit' form. It is possible to submit a thesis within four years of starting full time study; however, students and supervisors should submit close to the three year submission deadline. Only under special circumstances with a formal extension, can submission be made after the end of year four. Students who fail to submit before the end of the fourth year impose severe difficulties for their supervisors and the College since many research funding bodies refuse to support further studentships. Don't be one of these unpopular students!

3.5/4 Year PhD Programme

Progress towards the completion of the PhD and submission of the thesis will be reviewed at 32-36 months for 3.5-4 year PhD programmes by a committee composed of the adviser and two other members of the academic staff (not including the supervisors). After consultation with the supervisors, students will submit a thesis plan to the committee along with a research report and a timetable for the completion of any outstanding experimental/field work. The thesis and report together should contain sufficient detail that the committee can reasonably assess progress towards completion and can offer feedback to the student. The thesis plan, report and timetable should be submitted to the committee by 32 months for a 3.5 year PhD and 36 months for a four year PhD. An interview with the committee will be arranged within a month of receipt, the purpose of which will be to allow the committee to discuss the thesis plan and report with the student. The committee will offer written feedback and comment to the student and copy this to the supervisors, Head of School or Division and Graduate School. The committee will meet at least once more with the student prior to thesis submission but can opt for more frequent meetings depending on the progress of the student.

Year 4 - Calendar of Events and Milestones

October	 Re-register for your studies; Research student routine progress review form; and Interview with committee.
February	Students commence preparation of thesis.
March	 Student to give notice of thesis submission; and Second meeting with committee.
April	Research student routine progress review form.
May	Deadline for completion of experimental work.
July	 Formal meeting with supervisors; and Review and revise thesis submission timetable.
September	Student to submit thesis to Postgraduate Registry.

Year 4 - Notes

For Students Registered for a Four Year PhD

There will be a workshop to help you through the last stages of your PhD. Students registered for a four year PhD must submit their thesis within the four year period of supervised study. A writing-up period of approximately four months is allowed for (within the four year period), which is realistic only if previous written sections have been completed (ie first draft of the literature review, materials and methods and one research chapter). These previous completions will mean that the work skills involved in writing up will not need to be learned this late in the programme. Any student falling behind the agreed milestones for writing up will be referred to the Postgraduate Coordinator and/or the School Postgraduate Progress Committee. You are responsible for completing and sending in your 'intention to submit' form. Only under special circumstances with a formal extension can submission be made after the end of year four. Students who fail to submit before the end of the fourth year impose severe difficulties for their supervisors and the College since many research funding bodies refuse to support further studentships. Don't be one of these unpopular students!

Your Viva

Hints on your viva will be given via the training programme - but ask your supervisors for a mock viva.

Those within your supervisor's research group will provide a much more thorough and knowledgeable examination of a thesis. You and your supervisors may consider organising a mock oral examination and inviting your research group to it who can test the depth and breadth of your knowledge of the research project. The oral will provide useful feedback to you on the thesis itself prior to submission and on performance in oral examination.

Solving Problems

Students who have serious problems with their project or their supervisors are relatively rare. If a student feels that the project is not satisfactory they should first discuss their perceptions with their supervisors and if their doubts remain they should consult their adviser. If the supervisors note that the student is not making the expected progress they should first see the student to attempt to ascertain where problems lie and they should subsequently notify the adviser if the problems persist. When serious problems do arise it is expected that the supervisors and the adviser will act together with the student to find a solution. However, supervisors and advisers have a responsibility to identify at an early stage students who are not meeting their required standard and to advise them on how to improve their performance.

The time period for a research degree is very short and it is absolutely essential that students, supervisors and advisers monitor the progress of the work at all stages of the project. New students are not expected to have already acquired all the skills required to undertake research, but nor should they be treated as technicians. They require professional advice and expert supervision and, above all, encouragement.

Student Support

We hope that you do not encounter difficulties during the period of your studies, but if you have any problems please do not hesitate to contact your adviser or a member of the Graduate School team for confidential advice. Further information on student support is available from the <u>Student Support Services website</u>. This service can provide help with finances, welfare, counselling, health matters and academic issues. Contact email for the Director of Student Support Services - (<u>student.support@abdn.ac.uk</u>).

GUIDELINES ON GOOD RESEARCH PRACTICE

The University has issued a statement on Good Research Practice & Procedure on the Handling of Allegations of Research Misconduct: Guidelines on Good Research Practice.

RESEARCH OUTPUT

In order to increase the efficiency of research output from postgraduate students, in terms of achieving the maximum number of peer reviewed publications from PhD research, the following guidelines have been drawn up. These relate to the establishment of good record keeping protocols throughout the project. Necessarily, some descriptions are couched in legal terms but it is necessary to explain how research councils and charitable institutions, such as the Wellcome Trust, view their commitment to bringing postgraduate research work into the public domain.

1. Guidance on Recording Results

It is best practice and necessary to support any resultant patent application, to ensure that proof of conception/invention and subsequent diligence in taking the ideas forwards into practice be recorded in a permanent, unambiguous and provable manner. In practical terms this means that we have to be thorough and careful in maintaining our laboratory notebooks as outlined in Good Laboratory Procedures. In addition, it is recognised that the maintenance of research records are now made in a variety of ways, including electronic forms such as software files. The recommended best practice for recording of results is as follows:

- That permanent bound University of Aberdeen notebooks are used for recording results or (where most data is collected electronically, for example) to keep a precise log of results kept elsewhere. Students are required to use these notebooks.
- That each page should be signed off by a witness who is not related to the project, eg a fellow student. The signing-off should be on a regular (weekly basis) and blank parts of any pages should be scored through to prevent additions later on. Supervisors should also sign on a regular (monthly) basis.
- That computer-based results should be printed out and bound on a monthly basis and that extra back-up copies of data should be made.
- That originals or copies of the completed notebooks, computer print-out and electronic data are lodged with the supervisors of the project as they arise throughout the project.
- All data must be regularly backed-up and stored electronically in at least two places

It is important that supervisors and research students work together to maintain these standards.

2. Ownership of Results

Intellectual Property Rights (IPR) are the rights legally recognised to protect ownership of literary, artistic and scientific works and scientific discoveries. In recent years there has been a growing international appreciation of the direct benefits that the proper protection of academic IPR can bring to the individual 'inventor', the institution and the nation. This has led to the present policy of several governments, including the UK, to give the ownership of IPR generated by public funds, to the relevant institution, provided that there are in existence the required policies and procedures to

ensure full protection and encourage beneficial exploitation. If an employee of the University makes a valuable discovery as a result of the terms of their employment, the ownership of that discovery belongs to the University. Students are not employees of the University and so, unless any sponsorship agreement covering them states otherwise, they own the intellectual property that arises from their work. However, in practice it is often difficult to distinguish between the contributions of individual students and supervisors.

The main areas of IPR which are relevant to research and scholarly work are patents and copyright. To provide full patent protection there must be registration with the Patent Office before the invention becomes public knowledge. It is, therefore, essential to obtain advice on the patentability of an invention and its protection before publishing a paper, providing drawings, giving a lecture or even discussing one's work informally at scientific meetings. The international protection of IPR is normally beyond the financial resources of individuals. Copyright ownership must also be legally established through the provision of acceptable evidence and again requires the obtaining of relevant advice.

To overcome the above problems, which can be encountered by students, it is University policy to assign the same rights to students as for staff. It is particularly advisable that students working in teams on a common problem should all sign this agreement. Students are free to sign this agreement or to decline to do so though, in some instances, signing the agreement may be a condition for undertaking research. You will be given a form for assignment of intellectual property rights by students to sign at the induction day. More information is available on the web.

3. Publication Practice

The School hopes that all PhD theses will eventually be published in the form of peer reviewed research publications. This process should start with your first publication before submission of the thesis and should continue immediately thereafter. It is the responsibility of the student and supervisors to publish in this manner in order to take forward their subject area. Results of research should be published in an appropriate form consistent with the academic discipline. Anyone listed as an author on a paper should accept responsibility for ensuring that he/she is familiar with the contents of the paper and can identify his/her contribution to it. The practice of honorary authorship is unacceptable, although it is not acceptable not to give credit to people who have contributed significantly to a piece of work. Therefore, the contribution of formal collaborators and all others who directly assist or indirectly support the research must be properly acknowledged.

SUPERVISION OF THE RESEARCH PROJECT

The progression and completion of a PhD project and thesis is very much a team effort. While postgraduate research students are responsible for their own progress, they need to be nurtured and housed in the research environment of their supervisors and adviser. The roles and responsibilities of each are set out below.

Student Responsibilities

At all times students should remember that they are training to be professional scientists and that a high standard of conduct is expected from them. Postgraduate study brings with it a large element of personal responsibility for time-keeping, work planning and execution of experiments. Advice on these elements will be given by the supervisors and the staff appointed to provide specific elements of training for the postgraduate community. The following points should be borne in mind at all times:

You must:

- Keep your supervisors informed of progress that you are making and problems that you are encountering. Maintain regular contact with your adviser.
- Work hard to achieve the objectives established jointly with your supervisors.
- Establish and maintain a high standard of bench work and of reporting in the laboratory notebooks. University laboratory notebooks and good laboratory practices must be maintained at all times.
- Maintain both general scientific reading and papers relevant to the specific project in hand. You
 must attend the research theme seminars and also postgraduate seminars which form an
 integral part of your training.
- Attend the courses organised for you and other courses as agreed with your supervisors. You must attend at least twenty of the core courses over your period of study (usually three years).
- Give early notice to your supervisors and adviser, and thereafter the Postgraduate Co-ordinator, if any problems are encountered.
- Complete your practical work within 32 months (for three year PhD) and 44 months (for four year PhD) of initiating the project.
- Complete your thesis within your period of supervised study.

Supervisor Responsibilities

Supervisors should behave at all times in a professional manner. New postgraduate students are usually inexperienced in laboratory work, but they have been selected for their academic ability. They are entitled to be treated with respect by their supervisors, who also have a responsibility to make sure that students know what is expected of them.

Supervisors must ensure:

- That the appropriate technology for a project is already established in the laboratory or is available locally and the member of staff who is to provide the training has agreed to do so.
- That training needs are identified at an early stage, by consultation with the student.
- That the project maintains steady progress both in terms of research and in general intellectual advance of the student. This may be readily achieved through frequent group meetings where the student must present their work and frequent one-to-one meetings.
- That projects or students who are not making healthy progress are identified to the Postgraduate Co-ordinator within the first six months of the project.
- That projects for which extensions are required from the major research councils, due to either ill-health on the part of the student or technological failures in the project are identified at an early stage to the Postgraduate Co-ordinator.
- That the practical work is completed within sufficient time to allow the student to submit their thesis within the supervised study period.
- That the thesis is submitted within the supervised study period.

- That contact with workers outside the University is fostered through attendance at workshops, conferences and scientific visits.
- That material suitable for publication is organised into papers and submitted to high quality journals during the period of the PhD programme.

ROLE OF THE ADVISER (with the exception of students enrolled in MRes in Psychology)

You will be assigned an adviser who is independent of your supervisory team. Your adviser will:

- Familiarise themselves with your research project;
- Not be directly involved in your supervision, nor give specific scientific advice unless requested;
- Be available to give you independent advice on matters relating to your PhD experience;
- Provide independent advice and be sympathetic to your needs whilst not acting directly as mentor/advocate;
- Meet with you initially and at formal stages of progress, eg three month and nine month assessments; and
- Act as arbiter and 'internal' examiner at your nine month assessment examination.

The adviser should be someone who is not directly involved in the research project but should know enough about the topic area to be able to follow the progress of the PhD. The adviser should meet the student as often as the student wishes. The adviser will take responsibility for arranging the nine month assessment oral exam and liaise with the examiner as necessary. Advisers are there to give independent advice to the student; to ensure 'fair play' in assessments; offer general academic advice; mediate if there is conflict between, for example, the student and supervisors.

It is your responsibility to make contact with your adviser.

UNIVERSITY FACILITIES AND POLICIES

The University of Aberdeen has Policy Statements on, for example, <u>equality and diversity</u> and <u>data protection</u>.

University Degree Regulations

The definitive source of information on programmes and the regulations which govern them is the <u>General Degree Regulations for Research Degrees</u> which is available on the university website. The Regulations are included in this handbook.

Code of Practice for Research Students

The <u>Code of Practice for Research Students</u>, Supervisors, Heads of School, Heads of Graduate School and College Postgraduate Officers is available on the web. This sets out the requirements and expectations for students and supervisors.

Computing Facilities

The University has a very extensive and well-developed information technology infrastructure. All postgraduate students have ready access to computers, are given an email address and have access to the internet for academic purposes. There are also many opportunities to learn or enhance computing skills. There are several computer classrooms available throughout the university.

Students are reminded of the importance of 'Back-ups and File Management' to provide your insurance policy against the corruption or loss of valuable documents, data, or programmes.

Gail Smillie, Relationship Manager for the CLSM, DIT

Criminal Record Checks

Students will be required to complete a Disclosure Scotland criminal record check if their project involves unsupervised contact with children under the age of 18. Students who have lived outwith the UK in the previous five years will be required to obtain a police check from their home country.

Disability Provision

There are clear <u>guidelines</u> and lots of support for information for students with disabilities; you can also contact <u>Dr Lucy Foley</u>, Student Support Officer & Disability Adviser or telephone 273935.

Insurance

Registered postgraduate research students have insurance cover whilst on university business, ie working in a lab or when attending a conference, etc, but are not covered for travel/medical insurance. The university does not provide travel insurance for personal reasons to postgraduate students.

Library Facilities

There are two main libraries relevant to life science students, the Sir Duncan Rice Library at King's campus and the Medical Library at Foresterhill. Your ID card is your library card. Information about the libraries and the facilities that the Directorate of Information Technology (DIT) can offer are at http://www.abdn.ac.uk/library/ and http://www.abdn.ac.uk/library/ and http://www.abdn.ac.uk/library/.

Security

This is an important matter because of the amount of expensive equipment and potentially dangerous material in the institutes. Access to some buildings is controlled by swipe card. This is the ID card you will obtain when you first arrive at the University. If you need access to a building and your card will not let you enter, contact the administrator of your institute. The University is not liable for theft of student property. The telephone number of the central security office is 273939.

Seminars

There are regular seminar programmes organised by the Schools or research themes. Please check plasma screens, School and Graduate School websites for further information.

Smoking

The University has adopted a 'No Smoking' policy and smoking is not allowed in any University or hospital building. It should be noted that smoking is also not permitted outside University hospital buildings - there are designated smoking shelters on the Foresterhill site for this purpose.

SOME USEFUL REFERENCE MATERIAL

The following reference material may be of some interest to you during your period of study. You are strongly recommended to read one or more of the texts on 'How to ...' at the start of your studies. (Hyperlinks to titles are available in the online version of the handbook on Graduate School website)

Barnard, C., Gilbert, F. and McGregor, P. <u>Asking Questions in Biology: Design, Analysis & Presentation in Practical Work.</u>

Beynon, Robert J. Postgraduate Study in the Biological Sciences: A Researcher's Companion.

Cryer, Patricia. The Research Student's Guide to Success.

Kirkman, John. Good Style: Writing for Science and Technology.

Nyquist, Jody and Wulff, Donald H. Working effectively with Graduate Assistants.

O'Connor, Maeve. Writing successfully in science.

Palmer, Richard. Write in Style: A Guide to Good English..

Peters, R. Getting What You Came For - the smart student's guide to earning a Master's or a PhD.

Phillips, Estelle M. and Pugh, D.S. <u>How to Get a PhD</u>

Porush, David. A Short Guide to Writing About Science

Sprent, Peter. Getting into Print: A Guide for scientists and technologists.

Turk, Christopher and Kirkman, John. <u>Effective Writing: Improving Scientific, Technical and Business Communication.</u>

Watson, George. Writing a Thesis: a guide for long essays and dissertations.