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Welcome Note

Welcome to Cambridge and to the BBSRC DTP (Doctoral Training Partnership), your academic home for the next four years. The various University Departments and Institutes and affiliated Institutions in the region who make up the DTP have joined forces to establish an innovative interdisciplinary programme for graduate students in the biosciences. This builds on the excellent research training for which Cambridge is renowned, but offers a broader experience and greater flexibility than the more traditional PhD based on direct entry into a single research group.

You will be able to take advantage of the unparalleled research community around which the DTP is based by choosing two rotation projects in different research groups, alongside training in Exploiting New Ways of Working, including statistics and computational biology. In April next year, you will start your main PhD project, and later in your training period you will carry out a Professional Internship for PhD Students (PIPS) in a non-academic environment. As well as gaining experience in the wider world of work, you will also have the opportunity to see directly the ways that scientific research impacts the lives of people or the wellbeing of the planet.

Our aim is for you to graduate in four years’ time with a deep understanding and enjoyment of science and scientific research, and a network of colleagues and friends who will have shared your experience. Our hope is that you can aspire to become a future leader in research, or use your expertise in other ways to help society meet its future challenges. Four years, as you will find out, is not long, so make the most of the opportunities provided by the DTP, by your Department or Institute, and by Cambridge more generally. If you think there are ways that we can improve the Programme so that it is more effective or efficient, please let us know. As well as your Theme Leader, you will have various project supervisors, and a student representative on the Partnership Management Committee who will all listen and respond to your views.

Good luck in your studies—I look forward to hearing about your progress.

Alison Smith
Chair BBSRC DTP Management Committee
October 2017
Programme Structure

The DTP Programme is studied on a full-time basis. In the first six months you will undertake two 10-week rotation projects, either in a University Department or one of the Partner Institutes, as well as complete training in Maths, Statistics, Systems Biology and Research Skills (Exploiting New Ways of Working). You then finalise your choice of PhD project, to start in April, and complete a PhD project proposal. As this is a structured year, we would only permit students to be absent from the Programme in exceptional circumstances (see the section on Annual Leave below) but have factored in holidays over the Christmas and Easter periods.

During the PhD project, you will continue to undertake further research skills and subject-specific training, and spend 12 weeks undertaking a Professional Internship for PhD Students (PIPS).

The Programme is four years in duration; therefore, students must submit their thesis no later than 48 months after their start date. For students starting in October 2017, the final date for submission of a thesis is 30 September 2021.

The Programme is a partnership between several Departments and Institutes at the University of Cambridge and five research organisations (Partner Institutes) situated nearby. The Departments and Institutes are:

School of the Biological Sciences
- Department of Biochemistry
- Department of Genetics
- Department of Pathology
- Department of Pharmacology
- Department of Physiology, Development and Neuroscience
- Department of Plant Sciences
- Department of Psychology
- Department of Veterinary Medicine
- Department of Zoology
- The Sainsbury Laboratory (SLCU)

Other University Departments
- Department of Applied Mathematics and Theoretical Physics (DAMTP)
- Department of Chemical Engineering and Biotechnology
- Department of Chemistry
- Department of Physics
- Department of Pure Mathematics and Mathematical Statistics (DPMMS)
- Institute of Metabolic Science (IMS) – Metabolic Research Laboratories

Partner Institutes
- Animal Health Trust (AHT)
- Babraham Institute
- European Molecular Biology Laboratory – European Bioinformatics Institute (EBI)
- National Institute of Agricultural Botany (NIAB)
- Wellcome Trust Sanger Institute

The Programme allows students to carry out research in any of the Departments and Partner Institutes listed (subject to the scope of the relevant theme). Students undertaking research in
Partner Institutes remain registered with the University, receive their award from the University and have access to facilities at both the University and the Partner Institute.

**BBSRC Research Themes**

BBSRC-funded research and training at Cambridge will emphasise research aimed at improved understanding of basic biological mechanisms, from the study of biological molecules, to cellular and physiological processes, including genetic and genomic approaches. By this means the work will drive innovative discoveries; for example, new leads for drugs or disease prevention strategies, or underlying principles of cellular function, as well as interfacing with physical sciences and mathematics through improved understanding of biological mechanisms that underpin normal growth and development. Our bioscience research projects will help sustain the biotechnology and pharmaceutical industries in the UK, where the flow of ideas, skills and key capabilities provides mutual benefit.

The Programme has four themes, outlined below, which align with the strategic research priorities of the BBSRC. Each student is allocated to a theme, based on their choice during the application process. If you have any questions about your theme allocation, please contact the Programme Administrator: bbsrcdtp@lifesci.cam.ac.uk

**Agriculture and Food Security**

Research in this area aims to support the sustainable production of sufficient, safe, nutritious and affordable food to supply the world's growing population. It encompasses crop science, animal health and livestock production, as well as understanding of the links between diet and health, and food safety. At Cambridge and its collaborating institutions, research programmes range from the fundamental—for example, understanding the molecular mechanisms of how RNA initiates epigenetic effects on the genome—to much more applied projects, such as establishing strategies to deal with plant pathogens. Similarly, research into animal disease, welfare and productivity is complemented by studies of the molecular basis of the immune response, as well as genomics of pathogens and viruses. This theme also includes the investigation of developmental programming of health and disease by early life nutrition from the *in vivo* systems to the molecular levels, and how to optimise both agricultural productivity and conservation of natural habitats.

The Theme Leader for 2017/18 is Professor Bill Sutherland from the Department of Zoology (www.zoo.cam.ac.uk/directory/bill-sutherland). He is Miriam Rothschild Professor of Conservation Biology (www.conservation.cam.ac.uk/person/professor-bill-sutherland) and his research interests largely involve predicting the consequences of environmental change. Bill is currently heavily involved in exploiting a range of ways of integrating conservation science and policy, especially through the development of evidence-based conservation.

**Industrial Biotechnology and Bioenergy**

Bioenergy will play an important role in helping the UK to maintain its energy security in the context of diminishing worldwide stocks of fossil fuels, as well as providing the opportunity to reduce greenhouse gas emissions. However, to produce liquid biofuels commercially at scale will require integration of both biological and engineering solutions. At Cambridge the Bioenergy Initiative (www.energy.cam.ac.uk/directory/research-themes/supply/bioenergy) encompasses research groups in biological as well as physical sciences, engineering and mathematics, and is part of a larger Energy@Cam strategic research initiative. Projects include those addressing the study of plant cell walls for lignocellulosic ethanol production, algae for
bioenergy and remediation of waste-water and CO₂ emissions, as well as artificial photosynthesis.

Similarly, industrial biotechnology (IB) applies cross-disciplinary approaches to the use of biological resources for non-food applications, such as producing and processing materials and chemicals as replacements for petrochemical feedstocks, with the aim of helping the UK to become a low carbon economy. Thus, projects may address production of chemicals by metabolic engineering approaches, or optimise enzymes for biocatalysis, as well as developing new IB hosts, such as algae. Synthetic biology (www.synbio.cam.ac.uk/) is an emerging discipline at the engineering/biology interface that offers considerable potential for all aspects of IB research and many of the projects use synthetic biology approaches.

The Theme Leader for 2017/18 is Professor Alison Smith from the Department of Plant Sciences (www.plantsci.cam.ac.uk/research/alisonsmith). Alison’s research group addresses several aspects of the metabolism of plants, algae and bacteria, in particular vitamin and cofactor biosynthesis, using a wide range of techniques from biochemistry through molecular biology to genomics, coupled with mathematical modelling approaches.

**Bioscience for Health**

Basic bioscience is vital to reveal the biological mechanisms underlying normal physiology and homeostatic control during early development and through life. The Programme aims to achieve a deep, integrated understanding of the healthy system at multiple levels and the factors maintaining health under stress and biological or environmental challenge (www.bbsrc.ac.uk/news/planning/strategy/priority-three()). Projects encompass basic bioscience research topics where the goal is to help sustain lifelong health and wellbeing—through prevention strategies or new treatments—in the modern environment. These include fundamental and comparative studies of human, animal and microbial biology, which may lead to improvements in both human and animal health; for example, regulatory networks underlying biological rhythms; metabolic medicine and mechanisms of dietary choice; the ageing process (but not involving targeting of specific biology for medicinal purposes).

The Theme Leader for 2017/18 is Dr David Belin from the Department of Psychology (www.neuroscience.cam.ac.uk/directory/profile.php?davidbelin). He is interested in the neural, cellular and molecular substrates of inter-individual vulnerability to develop impulsive/compulsive disorders such as drug addiction, Obsessive/Compulsive Disorder, Tourette’s syndrome, pathological gambling or dopamine dysregulation syndrome in Parkinson Disease.

**World-Class Underpinning Bioscience**

This theme seeks to promote strength in core underpinning disciplines such as molecular, chemical, cellular and structural biology (www.bbsrc.ac.uk/news/planning/strategy/world-class-bioscience/). Major breakthroughs in recent years, including those recognised by Nobel Prizes awarded to Cambridge scientists, have depended on basic cellular and molecular research in areas including nerve function, the cell cycle, stem cells and molecular biology. Projects will be aimed at improved understanding of basic biological mechanisms, including (but not limited to) the study of biological molecules, cellular and physiological processes, genetic and genomic studies, integration with modelling and mathematical approaches, and interfacing with novel chemical and physical methods for the study of biological systems.

Theme Leader responsibilities for this Theme for 2017/18 are shared between the Wellcome Trust Sanger Institute and the European Bioinformatics Institute.
The Theme Leader for 2017/18 is Dr Martin Hemberg from the Wellcome Trust Sanger Institute (www.sanger.ac.uk/people/directory/hemberg-martin). His research interests are centred around quantitative models of gene expression and gene regulation. Martin is particularly interested in stochastic models and analysis of single-cell data. Another line of research involves analysing the role of non-coding transcripts and sequences.

The second Theme Leader for 2017/18 is Dr Oliver Stegle from the European Bioinformatics Institute (www.ebi.ac.uk/about/people/oliver-stegle). Interest in the Stegle Research Group lies in computational approaches to unravel the genotype–phenotype map on a genome-wide scale. For example, how do genetic background and environment jointly shape phenotypic traits or cause diseases? How are genetic and external factors integrated at different molecular layers, and how variable are these molecular readouts between individual cells?
Training in Exploiting New Ways of Working

As well as the four themes from which projects can be selected, the DTP has an enabling theme Exploiting New Ways of Working (ENWW) (www.bbsrc.ac.uk/news/planning/strategy/theme-two/). In the past decade new technology has led to a fundamental change in the nature and volume of data that biologists generate and must analyse. Training in modern computational and statistical techniques to deal with "big data", together with other mathematical techniques to allow the complexities of biological interactions to be modelled, is a very important component of the DTP Programme. During the first year there are numerous ways in which training in ENWW is delivered:

- **Formal Training Courses**
  - Training in *Programming in R, Data Carpentry and Plotting, Reproducible Research* and *Statistics*. Three-hour, mixed lecture-practical, sessions in September/October, which will also help you to get to know your cohort!
  - Five three-hour sessions in Lent Term consisting of a short reminder of the autumn training, followed by a free-flowing class in which students can receive help with the assignments.
  - Training to be delivered in Easter Term based on student need.

- **Mathematical Modelling and Computing**
  - *Systems Training in Maths, Informatics, Statistics and Computational Biology* (SysMIC; http://sysmic.ac.uk/) online course which runs during Michaelmas, Lent and Easter Terms. SysMIC focuses on reinforcing/developing skills in mathematical modelling and computing (via the programming language MATLAB). Students with a strong background can select a more advanced version of this course.
  - For those students whose research needs are not fulfilled by the SysMIC course you will be given access to a training budget to ensure you have the opportunity to attend useful courses and develop the skills, knowledge and experience required to be successful in your PhD.

- **Personal Development Strategy**
  - In Michaelmas Term, each student will have a brief discussion with a member of the ENWW Team to discuss your training needs and available options. You will be responsible for finding opportunities and attending training courses and will write a brief ‘Learning Log’ to be submitted with your second rotation project report.

The Theme Leader for 2017/18 is **Dr Simon Frost** from the Department of Veterinary Medicine (www.vet.cam.ac.uk/directory/sdf22@cam.ac.uk). His research interests focus on the use of mathematical and statistical modelling to understand the dynamics and evolution of infectious diseases such as HIV, hepatitis C and influenza A. Simon is responsible for the entire cohort, irrespective of their theme.

**Programming in R**

The aim of these sessions is to introduce basic computer programming in R, which will be used for the Statistics for Biologists training. The most fundamental concepts to be covered are conditionals and looping. Taken together, these allow the same code to be repeated a number of times, or until a particular condition is true/false. This allows more or less any calculation, or any sequence of analytic steps, to be automated. The sessions are deliberately pitched at the introductory level, although exercises of varying difficulty will be provided for anyone with more programming experience.
Data Carpentry and Plotting

The aim of these sessions is to show how to effectively handle and transform data. In particular, dplyr will be introduced for filtering, subsetting, summarizing and transforming multi-dimensional data in order to be able to find patterns, run statistics and prepare the data for plotting. Also advanced plotting will be introduced using ggplot2, as a replacement for the base graphics in R, in order to produce complex graphics relatively simply in publication-ready manner.

Reproducible Research

The aim of this session is to introduce the concept of reproducible research, and how this may be assisted using 'literate programming'—combining documentation with code. Using this approach, information on why an analysis is being done and the results of an analysis can be presented alongside the code used to read the data, perform the analysis, and generate figures, etc. Using examples from previous sessions, students will be shown how to generate reports and slideshows using RStudio.

Statistics for Biologists

The aims of this training are to help you to acquire the data analysis and statistical skills necessary for research projects and for evaluating literature and to provide practical experience in performing common statistical analyses using the R programming language and environment.

SysMIC Training Modules

The SysMIC (Systems Training in Maths, Informatics, Statistics and Computational Biology) modules are online training courses developed by a consortium of UK Universities and funded by BBSRC. As above, you will be given the choice whether to complete SysMIC or have access to a training budget. All students who register for SysMIC will be expected to complete either Module 1 or 2 of the course, which starts in November 2017.

Details of the course are available at: http://sysmic.ac.uk. Throughout the course there will be online support provided by the SysMIC team and a Moodle forum for Cambridge DTP students.

Your progress on the SysMIC course will be monitored and satisfactory completion of Module 1 or 2 is a pre-requisite for progression into the second PhD year. This requires submitting write-ups for nine assignments, plus a mini-project, which involve using simple MATLAB programming to solve mathematical problems in a biological context. You are encouraged to progress through Modules 2 and 3 during the course of your PhD.

Personal Development Strategy

The final component of ENWW training in the first year is the requirement to submit a brief ‘Learning Log’ alongside the second rotation project. This log will be a reflection of what mathematics, computing and/or statistics skills you have learnt during the first six months of the Programme and information regarding skills you intend to develop and how you will go about doing so.
Rotation Projects

Students will carry out two 10-week rotation projects during the first six months. The rotation projects allow students to gain experience of two different research environments and make an informed choice of their PhD project. The available rotation projects submitted by supervisors and other academic staff have been classified by strategic theme. Students are invited to express their preferences among these projects over the summer and the first of these will be allocated to students by the start of the Programme in October.

It should be noted that each Supervisor will normally only be permitted to supervise one rotation project each term.

Once project choices are confirmed, each student will be notified of the start date and given contact details of their project Supervisor. Students are encouraged to contact Supervisors in advance of starting the project as there may be background reading to complete. The Supervisor will arrange access to facilities and any specific training required.

Each rotation project is 10 weeks in duration and is spent carrying out research, either in a laboratory or elsewhere depending on the requirements of the project. Following the rotation project there is a two-week period to write the rotation project report. The two-week writing period is to complete the analysis and write up of data; we would therefore not expect that research is undertaken during this time. Further information on what should be included in the project report is contained in the Rotation Project Reports section of this handbook (see below).

Choosing your PhD Project

The majority of rotation projects are linked to PhD projects and it is expected that most students will choose one of these to continue for a PhD. However, different projects with the same Supervisor, or different Supervisors, are also possible following consultation with your Theme Leader. In exceptional circumstances students may be permitted to change theme.

In the week before the start of Michaelmas Term you will have the opportunity to learn more about the partner Departments and visit the external Partner Institutes. The aim is to give you a flavour of the research undertaken (in addition to your rotation projects) and help you to make an informed choice for your PhD project, including identifying potential collaborations or techniques that might enhance your research.

Each Supervisor is permitted to have one BBSRC DTP Programme student per cohort, so this may limit choices available. PhD project allocations will be confirmed at the end of your second rotation project (March) and you will start in the group in April 2018.
Year 1 Coursework and Evaluation

Progression within the DTP Programme relies on satisfactory completion of the following:

- Taught modules
  - Formal training assignments in September/October
  - Formal training assignments in January
  - SysMIC online course or other training courses
  - ENWW 'Learning Log'
- Reports on your two rotation projects
- PhD project proposal
- Module 1 of the Moodle course *Preparing for PIPS*
- Attendance at DTP Programme events

Students must achieve the following:

- Satisfactory attendance at and completion of formal training assignments
- Completion of the SysMIC online course (if applicable)
- At least a Satisfactory mark for each of the rotation project reports
- At least a Satisfactory mark for the PhD project proposal

You will receive feedback and a mark (Excellent, Very Good, Good, Satisfactory or Requires Improvement) for each rotation project report and PhD project proposal. Students whose reports or proposal are marked as 'Satisfactory' or 'Requires Improvement' will be asked to meet with their Theme Leader and/or PhD Supervisor to discuss training and skills development. The DTP Programme reserves the right to withdraw financial support if a student is not adequately progressing (ie, repeatedly receiving 'Requires Improvement' marks) through the Programme.

The review process is overseen by the Executive Committee, comprised of Theme and Deputy Theme Leaders ([bbsrdtp.lifesci.cam.ac.uk/ProspectiveCurrentStudents/contact](http://bbsrdtp.lifesci.cam.ac.uk/ProspectiveCurrentStudents/contact)), who will review feedback and marks from Supervisors and Assessors.

Upon starting the PhD proper in May 2018, progression will be determined according to the procedures of the graduate programme in your Department or Partner Institute. Funding from the DTP Programme is contingent on satisfactory reports of progress submitted via CamSIS by your Department or Institute. Students are expected to submit their thesis within 48 months of starting the Programme. The Programme recommends that students submit a traditional thesis, but will abide by Department regulations concerning submitting a thesis by publication.

Leaving the BBSRC DTP Programme

For those students who do not proceed to the PhD degree, there is the option of converting to one of the following:

- Certificate of Postgraduate Studies (CPGS)—not openly available but can, in some circumstances, be awarded by the Degree Committee for Biology
- MPhil by dissertation

The exact route will be determined after discussion with your Theme Leader and PhD Supervisor.
Rotation Project Reports

Rotation project reports should be a maximum of 5,000 words in length, including figure legends but excluding the bibliography (and words in figures and tables). Your word count (excluding the bibliography) must be given on the title page.

Reports should be properly referenced. Information on referencing can be found on the Student Registry website: www.admin.cam.ac.uk/univ/plagiarism/students/referencing/

Students must include in the report a preface with a signed statement along the following lines: "I confirm that the material in this report is not copied from any published material, nor is it a paraphrase or abstract of any published material unless it is identified as such and a full source reference is given. I confirm that, other than where indicated as above, this document is my own work."

Reports should be broken down into: summary, introduction, methods, results, and discussion.

Introduction: this section should give the non-specialist reader, in a concise manner, the background information necessary to understand your project and set the results in context. It should not be a full literature review. You should explain why you are doing the research (why is it important or why should the public care?) and its wider economic, societal or cultural impact (www.bbsrc.ac.uk/funding/apply/application-guidance/pathways-impact/).

Methods: this section should be concise, yet contain sufficient information to allow someone else to repeat the work: give priority to novel approaches and condense standard molecular methods by citing previous publications or manufacturer's instructions.

Results: this section should flow as a logical, coherent description of the project, including the rationale for doing each experiment. This will not necessarily be the order in which you carried out the experiments. Make use of figures and tables. Remember that this is a report of what you did in your rotation, not a paper for publication: don’t just put in your best (or only positive) results, but discuss problems encountered and/or troubleshooting.

Discussion: this section should NOT be a repetition of the Results section, but should critically evaluate the significance of your results in relation to published works, which should also be critically appraised. It will usually contain ideas of further work required to clarify your findings. This is a valuable inclusion in a project report where you may not have had sufficient time to complete the research as you might have wished.

It is recommended that you write parts of the report alongside conducting the research. You will have a two-week writing period at the end of the rotation, but during this time you will need to submit the report to your Rotation Project Supervisor. You should plan your time accordingly so that your Supervisor has time to read the report and provide feedback and you have time to implement the feedback before the submission deadline.

Reports should be .pdf (make sure that the report has not changed once saved in this format) and emailed to the Programme Administrator (bbsrcdtp@lifesci.cam.ac.uk) before 12:00 on the deadline (see Appendix 1). Hard copies are not required.

Each rotation project report will be read by the Rotation Project Supervisor and two Assessors, nominated by the Supervisor, who will provide feedback and a mark (see section Year 1 Coursework and Evaluation).
**PhD Project Proposal**

PhD project proposals should be a maximum of 6,000 words in length including figure legends, but excluding the bibliography (and words in Tables). The word count (excluding the bibliography) must be given on the title page. Project proposals should be properly referenced and further information on referencing can be found on the Student Registry website: [www.admin.cam.ac.uk/univ/plagiarism/students/referencing/](http://www.admin.cam.ac.uk/univ/plagiarism/students/referencing/)

The proposal should be broken down into: aims, background, methods and experimental design, controls, and budget, plus any health and safety considerations.

**Aims of the project**

This section should be succinct, with perhaps a few sentences of overview explaining the general focus and then listing some specific objectives/goals.

**Background and work that has led up to the project**

This section should set the scene for the research, so needs to be a summary of the relevant literature, perhaps beginning more broadly and getting more specific. It may include some preliminary unpublished data from your work or from other work in the lab, if it is relevant. It may also include some diagrams or pictures of data if they are helpful. You should explain the impact of this research (see section Rotation Project Reports). We suggest that about 1/3 of the proposal might be background, but there is no set rule.

**Experimental design and methods to be used in investigating this problem**

This section should describe your plan of investigation. It is often helpful to subdivide this into sections. These might represent sequential steps in the investigation (e.g. genetic screen; molecular characterisation of genes; etc.) or parallel approaches (e.g. loss of function studies; gain of function studies; etc.) or different questions to be addressed (e.g. Does X regulate Y? Is X essential for mesoderm development?). See what works best for your proposed work.

Remember to think about issues such as: what controls you will use to test whether your results are meaningful; do you foresee any pitfalls and if so, how might you circumvent them if they arise; what are your back-up plans in case this project fails to work out as expected? You should include a time-line, or flow diagram, to show you have a realistic idea of how long each part of the project is likely to take.

**In vivo skills training budget** (not required, but may be included)

This should be an Appendix (and does not count towards the word limit) and should include details of additional funding required if project involves *in vivo* skills training. This could be split into budgets for different elements of the training such as: animals and animal costs, consumables, equipment (if you need any specific equipment). You should try to find as much of this financial information out for yourself as possible, but must liaise with your Supervisor.

Reports should be completed in time for your PhD Supervisor to read and provide feedback before final submission.

Reports should be .pdf (make sure that the report has not changed once saved in this format) and emailed to the Programme Administrator ([bbsrcdtp@lifesci.cam.ac.uk](mailto:bbsrcdtp@lifesci.cam.ac.uk)) before 12:00 on the deadline (see Appendix 1). Hard copies are not required.
Each proposal will be read by the PhD Supervisor and two Assessors, nominated by the Supervisor, who will provide feedback and a mark.

**Assessment during the PhD**

On successful completion of the required elements of the initial Programme, students will be provisionally registered for the award of PhD. At some point during the second year of the Programme (exact timings will differ according to the host Department or Partner Institute) students will be required to submit a report (First Year Report) which will be examined in a *viva voce* examination. This process will be managed by the Graduate Administrator in your Department/Institute. Courses on how to complete this report are available through the Graduate School of Life Sciences (GSLS) Researcher Development Programme ([www.gradschl.lifesci.cam.ac.uk/](http://www.gradschl.lifesci.cam.ac.uk/)). On passing this students become fully registered for the PhD, back-dated to October 2017.

Before the end of the fourth year students must have completed and submitted their thesis for examination. Further information is available on the GSLS website, including details of courses that will help you in this process, such as the Writing Skills Summer School and the Finishing Up, Moving On (FUMO) course for final year students. The DTP also organises a Thesis and Viva Preparation workshop during the final year of the Programme.

**Plagiarism**

At all stages of the Programme you must adhere to the University and School Guidelines for assessed work. The University's statement on plagiarism is below. More information is available here: [www.admin.cam.ac.uk/univ/plagiarism/](http://www.admin.cam.ac.uk/univ/plagiarism/) and here: [www.biology.cam.ac.uk/undergrads/exams/plagiarism](http://www.biology.cam.ac.uk/undergrads/exams/plagiarism).

The General Board, with the agreement of the Board of Examinations and the Board of Graduate Studies, has issued this guidance for the information of candidates, Examiners and Supervisors. It may be supplemented by course-specific guidance from Faculties and Departments.

Plagiarism is defined as submitting as one’s own work, irrespective of intent to deceive, that which derives in part or in its entirety from the work of others without due acknowledgement. It is both poor scholarship and a breach of academic integrity.

Examples of plagiarism include **copying** (using another person’s language and/or ideas as if they are a candidate’s own), by:

- **quoting verbatim** another person’s work without due acknowledgement of the source;
- **paraphrasing** another person’s work by changing some of the words, or the order of the words, without due acknowledgement of the source;
- **using ideas** taken from someone else without reference to the originator;
- **cutting and pasting** from the Internet to make a pastiche of online sources;
- **submitting someone else’s work** as part of a candidate’s own without identifying clearly who did the work. For example, buying or commissioning work via professional agencies such as ‘essay banks’ or ‘paper mills’, or not attributing research contributed by others to a joint project.

Plagiarism might also arise from **colluding** with another person, including another candidate, other than as permitted for joint project work (i.e. where collaboration is concealed or has been forbidden). A candidate should include a general acknowledgement where he or she has received substantial help, for example with the language and style of a piece of written work.
Plagiarism can occur in respect to all types of sources and media:
- text, illustrations, musical quotations, mathematical derivations, computer code, etc;
- material downloaded from websites or drawn from manuscripts or other media;
- published and unpublished material, including lecture handouts and other students’ work.

Acceptable means of acknowledging the work of others (by referencing, in footnotes, or otherwise) is an essential component of any work submitted for assessment, whether written examination, dissertation, essay, registration exercise, or group coursework. The most appropriate method for attribution of others’ work will vary according to the subject matter and mode of assessment. Faculties or Departments should issue written guidance on the relevant scholarly conventions for submitted work, and also make it clear to candidates what level of acknowledgement might be expected in written examinations. Candidates are required to familiarize themselves with this guidance, to follow it in all work submitted for assessment, whether written paper or submitted essay, and may be required to sign a declaration to that effect. If a candidate has any outstanding queries, clarification should be sought from her or his Director of Studies, Course Director or Supervisor as appropriate.

Failure to conform to the expected standards of scholarship (e.g. by not referencing sources) in examinations or assessed work may affect the mark given to the candidate’s work. In addition, suspected cases of the use of unfair means (of which plagiarism is one form) will be investigated and may be brought to one of the University Courts or disciplinary panels. The University courts and disciplinary panels have wide powers to discipline those found to have used unfair means in an examination, including depriving such persons of membership of the University, and deprivation of a degree.

The University makes use of text-matching software for the purpose of plagiarism education and detection, and reserves the right to submit a candidate’s work to such a service. For this purpose, candidates consent to the submission of their papers to the service and for the submitted papers to form part of the service’s comparative source work database. To facilitate use of the service, students (and participating Examiners and Assessors) may be required to agree to the service provider’s end-user agreement and provide a limited amount of personal data upon registration to the service, for instance, their name, email address, and course details.

(July 2016): [www.admin.cam.ac.uk/univ/so/2016/chapter02-section19.html#heading2-17](http://www.admin.cam.ac.uk/univ/so/2016/chapter02-section19.html#heading2-17)

The Faculty Board of Biology’s Statement on Plagiarism can be found here: [www.biology.cam.ac.uk/undergrads/exams/plagiarism](http://www.biology.cam.ac.uk/undergrads/exams/plagiarism)

Students based in Departments outside the remit of the Faculty of Biology can access guidance from: [www.admin.cam.ac.uk/univ/plagiarism/students/depts.html](http://www.admin.cam.ac.uk/univ/plagiarism/students/depts.html)
Researcher Development

Researcher Development (RD) encompasses all of the learning and development that you acquire and apply during your time in Cambridge. It will provide you with the skills and experiences that you need as a professional researcher, both today for your degree, and for the future, whatever that might be!

The Cambridge Researcher Development Framework (CamRDF) presents these skills as 15 core competencies. You can use the CamRDF to explore why these skills are helpful for a researcher, understand what they look like in the real world and point you towards how you can further develop them.

The Core Skills Training Programme (CSTP)

The Graduate School of Life Sciences (GSLS) has developed a Core Skills Training Programme (CSTP), which you are strongly recommended to complete in your first year. Completing the CSTP will ensure that you are informed of the range of RD opportunities available in Cambridge and provide the foundational skills in personal effectiveness and scientific communication that are essential for progression.

You will be enrolled onto the CSTP Introductory Moodle in early October 2017, which can be accessed from your dashboard at: www.vle.cam.ac.uk with your Raven login. This will provide you with all the information you need about the components of the CSTP. The first is the online Skills Analysis Survey, which introduces you to the CamRDF, helps you identify your training needs, and allows you to create a personal development plan. The other components will be available from November and you will receive regular updates by email.

Completing the CSTP

Completion of the CSTP is sufficient for the training requirements that are assessed in your First Year Report. The GSLS will track your engagement, update your department on your progress and present you with a certificate when you finish the CSTP. You should also maintain a training log of other activities that contribute to your professional development, and be aware of any department-specific requirements.

Other RD Opportunities

The Researcher Development Programme (www.rdp.cam.ac.uk) is your first stop in finding out more about RD in Cambridge, including information about other providers. The Graduate School of Life Sciences also runs specific events for life scientists throughout the year. If you want to know more or have any questions you should contact Dr Ben Murton (blm23@cam.ac.uk), who is responsible for RD in the Life Sciences. There is a one-to-one consultation service available for all GSLS members.

Health and Safety

Students must adhere to the specific health and safety regulations of the Department in which they are working at each stage of the Programme. Information on General Safety in Research Labs is included in Appendix 4 below. Students must attend the compulsory lectures in the University Safety course in October (see Appendix 1). We also encourage students to attend the optional biological safety, cryogenics, VDUs, pipettes, glass and sharps, and radiation courses. Courses can be booked online: www.safety.admin.cam.ac.uk/training/graduate-safety-course/current-timetable-venues-and-handouts
Professional Internship for PhD Students (PIPS)

As part of the Programme each student must complete a 12-week (60 work days) internship in a professional environment. You will go out into the 'real world' and potentially compete with 'real people' for the chance to work in your chosen host organisation. Your PIPS is an amazing opportunity to learn and apply new skills that will develop you as a researcher and help you understand the context of your research in the wider world, as well as providing ideas about future employment options. Students should therefore choose a PIPS that is not related to their field of research or in research in academia.

In order to help you organise your PIPS you will be enrolled on the Preparing for PIPS Moodle course (www.vle.cam.ac.uk). This electronic learning resource will guide you through a series of activities that will help you identify what you want to gain from the PIPS, plan when it will fit in with your research and prepare you for approaching your host organisation and securing your placement.

The PIPS should ideally take place after the Department/Partner Institute First Year Assessment and before the last six months of the Programme. Module 1 of the Preparing for PIPS course should be completed by the end of your first year.

All potential placements must be approved by the PIPS Coordinator (Dr Sarah Fahle), who is also happy to meet with you to discuss your areas of interest and to help you develop your ideas. Further details about PIPS will be provided in the PIPS workshop, held during the first year of the Programme. Details of current PIPS providers can be found in the Preparing for PIPS Moodle course and you will be emailed PIPS opportunities throughout the year.

Consult the Preparing for PIPS Moodle course or BBSRC DTP Programme website (bbsrcdtp.lifesci.cam.ac.uk/PIPS) for more information.

Research Contracts

A research contract is required to ensure that a researcher has freedom to operate when working with an external collaborator. The role of the Research Operations Office (www.research-operations.admin.cam.ac.uk/) is to negotiate contracts on behalf of the researcher and the University. Prior to any external work students must contact the DTP Programme Administrator (bbsrcdtp@lifesci.cam.ac.uk).

BBSRC DTP Programme Cohort Development

The welcome dinner and Department/external Partner Institute visits, along with training opportunities, will foster cohort development. The Programme also organises workshops and events for all students within the BBSRC DTP Programme, to enable networking opportunities and introduce individuals who can advise you about the Programme, PhD and PIPS. Some meetings/events may be organised by Theme. Students are expected to attend all events.

Students are actively encouraged to plan additional social events and skills development opportunities, such as informal presentations or journal clubs. Cambridge offers a plethora of opportunities to “get involved” between the DTP Programme, Department, College and University Clubs and Societies. Students will receive the DTP Programme monthly e-news bulletin, updating them on Programme news and training/funding opportunities within Cambridge and further afield.
Annual Leave and Intermission

Due to the structured nature of the first year of the Programme, it is not possible for students to take annual leave outside of the designated holiday periods in December and Easter (see Appendix 1). In subsequent years of the Programme, students are entitled to a total of eight weeks of annual leave, to be taken at times agreed with their PhD Supervisor.

Students who are unable to work on their project for medical or other reasons can apply to intermit by completing an application form, which is available from their CamSIS self-service page. Further information can be found on the Student Registry webpage at: [www.admin.cam.ac.uk/students/studentregistry/current/graduate/programme/intermission.html](http://www.admin.cam.ac.uk/students/studentregistry/current/graduate/programme/intermission.html)

Students funded by BBSRC should bear in mind that they will not receive a stipend for a period of intermission (unless the intermission is to cover a period of maternity leave). Students with joint awards from other funders should check with them to see if payment is made during periods of intermission.

Working

Students are permitted to undertake up to eight hours paid employment per week during the course of their studies, usually teaching (demonstrating or supervising). However, we would advise that you do not work during the first year of the Programme.

Money Matters

Students funded by BBSRC will have their University tuition fees paid directly from the School of the Biological Sciences. Students who are eligible to receive a maintenance stipend from BBSRC will receive payments on the 26th of each month once the forms supplied by the Programme Administrator have been completed.

As part of the BBSRC DTP Studentship each BBSRC-funded student is awarded:

- Up to £1,500 for consumables for each rotation project
- £15,000 for consumables for the duration of the PhD
- £900 for travel/conferences for the duration of the PhD

These funds are paid directly to Departments and Partner Institutes. Students should therefore discuss expenditure requests with their Rotation Project and PhD Supervisors and liaise with their Department/Institute Graduate Administrator.

Laptops

Laptops are not provided, but financial support may be available for upgrades or software. Generally, after the first year of the Programme, IT needs should be met through your consumables funding (see above). Contact the Programme Coordinator for information about financial support.
Student Support

There are a number of support mechanisms available to students, in addition to your Rotation Project and PhD Supervisors:

Theme Leader

Theme Leaders will get to know their students as individuals and will advise on choice of rotation projects, PhD project and taught modules as part of the personal training strategy. They may also provide mentoring and guidance as required.

College Graduate Tutors

Students will be assigned a Graduate Tutor in their College who can provide advice about academic and non-academic (pastoral, financial or emotional) issues. Further information on the advice and support provided by College Tutors can be found here: www.cambridgestudents.cam.ac.uk/welfare-and-wellbeing/college-tutorial-support

University Counselling Service

The Counselling service provides meetings with counsellors and workshops as well as a number of self-help resources. Information can be found on their website at: www.counselling.cam.ac.uk/studentcouns

GRASP

The GSLS Graduate Student and Postdoc forum (GRASP) represents graduate students and Postdocs from each University Department and Partner Institute from Life Sciences. GRASP was developed in 2011 to provide postgraduate students and early career researchers with a platform for the communication of ideas and mutual concerns, and for the coordination of academic activities. Further information about GRASP can be found on the GSLS website: www.gradschl.lifesci.cam.ac.uk/Current%20Students/GRASP

Other

General information on being a student at Cambridge can be found here: www.cambridgestudents.cam.ac.uk/

Students should ensure that they have read the University’s Code of Practice for Graduate Research Degrees: www.cambridgestudents.cam.ac.uk/new-students/manage-your-student-information/graduate-students/code

Information specific to graduate students in Life Sciences can be found on the Graduate School of Life Sciences website: www.gradschl.lifesci.cam.ac.uk/

Information for graduate students in Colleges can be found at: www.graduate.study.cam.ac.uk/colleges
### Useful Information and Contacts

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Tel</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair, Management Committee</td>
<td>Professor Alison Smith</td>
<td>(3)33952</td>
<td><a href="mailto:.as25@cam.ac.uk">.as25@cam.ac.uk</a></td>
</tr>
<tr>
<td>Programme Director/Chair, Executive Committee</td>
<td>Dr Finian Leeper</td>
<td>(3)36403</td>
<td><a href="mailto:fjl1@cam.ac.uk">fjl1@cam.ac.uk</a></td>
</tr>
<tr>
<td>Programme Coordinator/PIPS Coordinator</td>
<td>Dr Sarah Fahle</td>
<td>(7)47160</td>
<td><a href="mailto:srf42@cam.ac.uk">srf42@cam.ac.uk</a></td>
</tr>
<tr>
<td>Programme Administrator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate School of Life Sciences</td>
<td>Cathy Butler</td>
<td>(7)66897</td>
<td><a href="mailto:enquiries@lifesci.cam.ac.uk">enquiries@lifesci.cam.ac.uk</a></td>
</tr>
</tbody>
</table>

### BBSRC DTP Programme Executive Committee
[bbsrcdtplifesci.cam.ac.uk/ProspectiveCurrentStudents/contact](bbsrcdtplifesci.cam.ac.uk/ProspectiveCurrentStudents/contact)

### Theme Leaders

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Department</th>
<th>Tel</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Food Security</td>
<td>Professor Bill Sutherland</td>
<td>Zoology</td>
<td>(3)36686</td>
<td><a href="mailto:wjs32@cam.ac.uk">wjs32@cam.ac.uk</a></td>
</tr>
<tr>
<td>Industrial Biotechnology &amp; Bioenergy</td>
<td>Professor Alison Smith</td>
<td>Plant Sciences</td>
<td>(3)33952</td>
<td><a href="mailto:as25@cam.ac.uk">as25@cam.ac.uk</a></td>
</tr>
<tr>
<td>Bioscience for Health</td>
<td>Dr David Belin</td>
<td>Psychology</td>
<td>(3)33588</td>
<td><a href="mailto:bdb26@cam.ac.uk">bdb26@cam.ac.uk</a></td>
</tr>
<tr>
<td>World-Class Underpinning Bioscience</td>
<td>De Martin Hemberg</td>
<td>Sanger</td>
<td></td>
<td><a href="mailto:martin.hemberg@sanger.ac.uk">martin.hemberg@sanger.ac.uk</a></td>
</tr>
<tr>
<td>World-Class Underpinning Bioscience</td>
<td>Dr Oliver Stegle</td>
<td>EBI</td>
<td>01223 494101</td>
<td><a href="mailto:stegle@ebi.ac.uk">stegle@ebi.ac.uk</a></td>
</tr>
<tr>
<td>Exploiting New Ways of Working</td>
<td>Dr Simon Frost</td>
<td>Veterinary Medicine</td>
<td></td>
<td><a href="mailto:sdf22@cam.ac.uk">sdf22@cam.ac.uk</a></td>
</tr>
</tbody>
</table>

### Deputy Theme Leaders

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Department</th>
<th>Tel</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Food Security</td>
<td>Dr Paolo D’Avino</td>
<td>Pathology</td>
<td>(3)33712</td>
<td><a href="mailto:ppd21@cam.ac.uk">ppd21@cam.ac.uk</a></td>
</tr>
<tr>
<td>Industrial Biotechnology &amp; Bioenergy</td>
<td>Dr Sarah Bohndiek</td>
<td>Physics</td>
<td>(3)37267</td>
<td><a href="mailto:seb53@cam.ac.uk">seb53@cam.ac.uk</a></td>
</tr>
<tr>
<td>Bioscience for Health</td>
<td>Dr Frank Reimann</td>
<td>IMS-MRL</td>
<td>(7)62626</td>
<td><a href="mailto:fr222@cam.ac.uk">fr222@cam.ac.uk</a></td>
</tr>
<tr>
<td>World-Class Underpinning Bioscience</td>
<td>Professor Bill Colledge</td>
<td>PDN</td>
<td>(3)33881</td>
<td><a href="mailto:whc23@cam.ac.uk">whc23@cam.ac.uk</a></td>
</tr>
</tbody>
</table>
## Appendix 1: 2017/18 Student Timetable
[link to timetable]

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 25 September</td>
<td>09:30-11:00</td>
<td>DTP Student Welcome Meeting&lt;br&gt;Large Lecture Theatre, Dept of Plant Sciences</td>
</tr>
<tr>
<td></td>
<td>11:00-12:00</td>
<td>Theme Leader Meetings&lt;br&gt;Various locations</td>
</tr>
<tr>
<td></td>
<td>12:00-13:30</td>
<td>Welcome Lunch&lt;br&gt;Newton Room, Pitt Building</td>
</tr>
<tr>
<td></td>
<td>14:00-17:00</td>
<td>Introduction to Programming in R, session 1&lt;br&gt;Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td>Tuesday 26 September</td>
<td>09:30-12:30</td>
<td>Introduction to Programming in R, session 2&lt;br&gt;Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td></td>
<td>14:00-17:00</td>
<td>Data Carpentry and Plotting, session 1&lt;br&gt;Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td>Wednesday 27 September</td>
<td>08:30-17:00</td>
<td>External Partner Institute Visit: Wellcome Trust Sanger Institute and European Bioinformatics Institute</td>
</tr>
<tr>
<td></td>
<td>(all visits)</td>
<td>External Partner Institute Visit: National Institute of Agricultural Botany</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Or, students arrange to visit Departments</td>
</tr>
<tr>
<td>Thursday 28 September</td>
<td>09:00-17:00</td>
<td>External Partner Institute Visit: Animal Health Trust&lt;br&gt;External Partner Institute Visit: Babraham Institute</td>
</tr>
<tr>
<td></td>
<td>(all visits)</td>
<td>Or, students arrange to visit Departments</td>
</tr>
<tr>
<td>Friday 29 September</td>
<td>09:30-12:30</td>
<td>Data Carpentry and Plotting, session 2&lt;br&gt;Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td></td>
<td>14:00-17:00</td>
<td>Reproducible Research&lt;br&gt;Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
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<tr>
<td>Monday 2 October</td>
<td>09:30-12:30</td>
<td>Introduction to Programming in R, session 3&lt;br&gt;Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td>Date</td>
<td>Time</td>
<td>Event</td>
</tr>
<tr>
<td>----------------------</td>
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</tr>
<tr>
<td>Monday 2 October</td>
<td>14:00-17:00</td>
<td>Introduction to Programming in R, session 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
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<tr>
<td>Tuesday 3 October</td>
<td>10:00-14:00</td>
<td>University General Safety Course and Chemical/Lab Safety Course – <strong>compulsory</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cambridge Corn Exchange</td>
</tr>
<tr>
<td></td>
<td>14:30-17:30</td>
<td>Statistics, session 1 (half of cohort)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titan Teaching Room 2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td>Wednesday 4 October</td>
<td>09:30-12:30</td>
<td>Statistics, session 1 (repeated from yesterday)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titan Teaching Room 2, 2nd floor, Cockcroft Building, New Museums Site</td>
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<tr>
<td></td>
<td></td>
<td>Students are invited to meet with their rotation project 1 supervisor</td>
</tr>
<tr>
<td>Thursday 5 October</td>
<td>09:30-12:30</td>
<td>Statistics, session 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td></td>
<td>19:00-22:00</td>
<td>DTP Welcome Dinner</td>
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<tr>
<td></td>
<td></td>
<td>Robinson College</td>
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<tr>
<td>Friday 6 October</td>
<td>09:30-12:30</td>
<td>Statistics, session 3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
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<tr>
<td></td>
<td>14:00-17:00</td>
<td>Statistics, session 4</td>
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<tr>
<td></td>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td>Monday 9 October</td>
<td>09:30-12:30</td>
<td>Statistics, session 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building, New Museums Site</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rotation Project 1 begins</td>
</tr>
<tr>
<td>W/c 9 October</td>
<td></td>
<td><strong>Personal Development Strategy Interviews (details TBC)</strong></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td><strong>SysMIC course begins</strong></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td><strong>Event – meeting Programming alumni and career planning (details TBC)</strong></td>
</tr>
<tr>
<td>Friday 15 December</td>
<td></td>
<td><strong>Rotation Project 1 ends</strong></td>
</tr>
<tr>
<td>Monday 18 December</td>
<td></td>
<td><strong>Event – training and networking, plus socialising with cohort and other DTP Programmes before the winter</strong></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Tuesday 19 December to</td>
<td>Winter break</td>
<td></td>
</tr>
<tr>
<td>Tuesday 2 January 2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday 8 January</td>
<td>Rotation Project 1 report due</td>
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</tr>
<tr>
<td>Monday 8 January</td>
<td>Analysis of Biological Data (training course)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Museums Site</td>
<td></td>
</tr>
<tr>
<td>Tuesday 9 January</td>
<td>Analysis of Biological Data (training course)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building,</td>
<td></td>
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<tr>
<td></td>
<td>New Museums Site</td>
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</tr>
<tr>
<td>Wednesday 10 January</td>
<td>Analysis of Biological Data (training course)</td>
<td></td>
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<tr>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Museums Site</td>
<td></td>
</tr>
<tr>
<td>Thursday 11 January</td>
<td>Analysis of Biological Data (training course)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building,</td>
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</tr>
<tr>
<td></td>
<td>New Museums Site</td>
<td></td>
</tr>
<tr>
<td>Friday 12 January</td>
<td>Analysis of Biological Data (training course)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Titan Teaching Rooms 1&amp;2, 2nd floor, Cockcroft Building,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Museums Site</td>
<td></td>
</tr>
<tr>
<td>Monday 15 January</td>
<td>Rotation Project 2 begins</td>
<td></td>
</tr>
<tr>
<td>February</td>
<td>PIPS Workshop (details TBC)</td>
<td></td>
</tr>
<tr>
<td>Friday 23 March</td>
<td>Rotation Project 2 ends</td>
<td></td>
</tr>
<tr>
<td>Friday 13 April</td>
<td>Rotation Project 2 report due</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENWW short report due</td>
<td></td>
</tr>
<tr>
<td>Friday 13 April to</td>
<td>Spring break</td>
<td></td>
</tr>
<tr>
<td>Monday 23 April</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monday 23 April</td>
<td>PhD begins and PhD Project Proposal Write-up</td>
<td></td>
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<tr>
<td>Monday 21 May</td>
<td>PhD Project Proposal due</td>
<td></td>
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<tr>
<td>May/June</td>
<td>DTP Programme Workshop (all cohorts; details TBC)</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>Deadline for all SysMIC assignments</td>
<td></td>
</tr>
<tr>
<td>June</td>
<td>2017 Cohort Training Feedback Session (details TBC)</td>
<td></td>
</tr>
<tr>
<td>Friday 31 August</td>
<td>Deadline for students to complete PIPS Module 1</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2: General Safety in Research Labs
[www.safety.admin.cam.ac.uk/]

Chemicals: All labs contain biologically hazardous chemicals, which are not always immediately obvious. To protect from accidentally exposure to these chemicals, each laboratory holds COSHH forms listing the chemicals used in the lab, how to store and handle them and action to take in case of an accident. You should read the forms before using any listed substances. Your supervisor has a responsibility to ensure that you fully understand the potential hazards in the lab and the appropriate safety measures. You should seek the advice of technical or academic staff on the procedures for using dangerous substances before you start using them.

Radiochemicals: All students who expect to use radioisotopes must be registered with the relevant Departmental Radiation Officers before using isotopes. You must have received basic training on safe handling procedures in order to be registered. You are responsible for ensuring that you are fully aware of both handling and disposal procedures for each radioisotope you use and should therefore contact your supervisor before using any radiochemicals.

Equipment: All electrical equipment is routinely checked. You must not tamper with the power supply to any device. If you suspect a piece of equipment to be faulty, you should report it to the relevant Departmental electricians.

Animals: If you conduct a research project involving any procedures that may have the effect of causing pain, suffering, distress or lasting harm to animals protected by the Animals (Scientific Procedures) Act 1986, you must hold a Home Office licence. This will require attendance at training courses and reading relevant guidance documents. You must not begin any work with animals until you have received the licence, and even then you must work under the close supervision of your supervisor or other appointed persons.