Quantitative and Interdisciplinary approaches to Biomedical Science

- Superseminars
- Public engagement
- Co-supervision of projects
- Computational biology training
- Interdisciplinary workshops & retreats
- Innovative ways of interacting with industry
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Welcome...

I'm Professor Bill Hunter, the MRC QIBIOMED PhD Programme Lead. Our programme brings together researchers from the School of Life Sciences, the School of Medicine and the School of Science and Engineering to train the next generation of scientists at the forefront of international biomedical science.

Hosting a successful postgraduate programme is a priority for us and student contributions to our research, environment and culture are highly valued.

Within the 4-year MRC QIBIOMED programme you will help fulfil the vision of the University of Dundee to transform lives locally and globally through the creation, sharing and application of knowledge.

There are three particular factors that define our programme:

1. Our staff are leaders in diverse areas of biomedical research, and our community is friendly and collaborative.
2. Our facilities for research are state-of-the-art.
3. The training we provide, together with strong links to industry, means that our students are eagerly sought by employers.

In your first year, you will be exposed to wide-ranging research cutting across the four thematic areas of our research — Development, Stem Cells and Neurobiology; Infection and Disease; Responses to Cellular Stress; and Big Data and Translation. You will acquire practical and theoretical skills in different laboratories, and carry out a variety of rotation projects allowing you to make an informed decision for the selection of your main PhD project. Integral to this programme is training in computational biology, mathematical biology and statistics to equip you with the skills to tackle complex biological questions.

You will participate in other cohort activities such as the annual Summer School—a great way to interact with your peers across the different years. We will provide training to help you develop skills in research methods, critical assessment and communication and encourage you to participate in outreach events that can provide context for your research.

Aligned with the QIBIOMED programme are industrial Cooperative Awards in Science and Engineering (iCASE). Here we promote industry-relevant projects and translational science. After a period of training, students start their research in the academic laboratory on a project that will also involve a minimum of three months working with the industrial partner.

This brochure will share more details about the programme, our rankings and our students’ perspectives, but if you need any further information, you can contact me directly using the details in the QIBIOMED Contacts section.

Finally, if you are successful in joining the programme, I hope that you will find your PhD a challenging but rewarding experience, equipping you with the skills to tackle a variety of future career paths.
MRC Doctoral Training Partnerships

MRC DTPs provide funding for doctoral training across the remit and strategic priority areas of the MRC. The DTPs are awarded to fund multiple intake years of students and they provide Research Organisations (ROs) with significant flexibility in the use of funds to support postgraduate studentships aligned to the scientific strategy and strengths of the RO.

Why QIBIOMED?

QIBIOMED - Training the Next Generation of Scientists in Quantitative and Interdisciplinary approaches to biomedical science – is the University of Dundee MRC-funded Doctoral Training Partnership (DTP).

The University of Dundee has outstanding Life Sciences, Physical and Medical Research that is making fundamental discoveries as well as translating its basic and clinical research to address global health challenges. The outstanding biomedical research at the University of Dundee was recognised by its very high rankings in REF2014. Dundee was rated the top University for Biological Sciences and the Medical School was number 1 for the impact of its research. STEMM subjects in Dundee were also highly ranked with our Engineering and Physics ranked top in Scotland and within the top 10 in the UK. Moreover, our mathematics unit, which focuses heavily on maths biology was ranked 8th in the UK and top in Scotland. Life Sciences has been in the top 10 Universities worldwide for citations per paper in the QS World University Rankings for biological sciences from 2012-2015.

→ Top UK University for Biological Sciences
   Research Excellence Framework 2014

→ 1st in the World
   World’s most influential research institution in pharmaceuticals, Clarivate Analytics 2017

→ 5th in UK
   for impact of scientific research, CWTS Leiden Rankings 2017

→ Scotland’s Most Innovative University 2016
   Reuters
One key to these successes is our collaborative working environment and outstanding shared technological infrastructure run by expert staff. However, these internationally recognised strengths in mass spectrometry, cell and tissue imaging, drug discovery, e-health and informatics platforms mean that our research is generating ever larger quantities of data. Our ability to curate, visualise, analyse and understand these huge data sets is lagging behind our ability to acquire them. The synergy generated by combining distinct arenas of expertise is a promising strategy for solving this problem. Therefore, in MRC QIBIOMED programme aims to “Train the Next Generation of Scientists in Quantitative and Interdisciplinary approaches to biomedical science” by immersing PhD students in an interdisciplinary world that combines research experiences with solid basic science training in experimental design, data handling and research ethics.

We welcomed our first cohort of students to this new QIBIOMED programme in 2016, and they joined other MRC-funded students hosted through our previous Integrated Studentship Portfolio Agreement, industrial partnership students, as well as students in our MRC Protein Phosphorylation and Ubiquitylation Unit.

“Our MRC QIBIOMED student cohort are very valued contributors to the inter-disciplinary research environment and ethos in the School of Life Sciences. By training and working across School boundaries, they benefit from, exemplify and highlight, our drive to address complex biomedical-related problems with excellent research, informative outreach and effective translation into real-life impacts”

Professor Claire Halpin FRSE, Professor of Plant Biology & Biotechnology, Associate Dean of Research, School of Life Sciences, University of Dundee

“The research vision of School of Medicine in Dundee is to train the next generation of biomedical scientists and clinicians so that they are best able to profit from the exciting opportunities offered by interdisciplinary research and innovative technologies. The MRC DTP scheme is a critical component of this vision, through its focus on bespoke training, transferable skills development and interdisciplinarity.”

Professor Rory J. McCrimmon, Professor of Experimental Diabetes and Metabolism, Associate Dean of Research, School of Medicine, University of Dundee

“Our research strengths in computing, mathematics, engineering and physical sciences are a perfect match to drive or support multidisciplinary approaches to complex biomedical problems. By providing excellent training and many opportunities to experience different discipline cultures we are confident that, together with our colleagues in other Schools, we are producing a cohort of researchers well-equipped to make their own significant contributions in whatever field they choose, be it academia, the health services or industry.”

Professor Amin Abdolvand, Professor of Functional Materials & Photonics, Associate Dean of Research, School of Science & Engineering, University of Dundee
The QIBIOMED Training Programme

All first-year postgraduate research students are invited to attend a University welcome event hosted by the Vice-Principal for Research, Knowledge Exchange and Wider Impact.

Thereafter, students follow a 4-year programme comprising induction training, three rotation projects and a main research project. Research is supported by a programme of transferable professional skills, and technical and interdisciplinary training.

“We recognise that to address relevant and complex problems requires training the right people and asking the right questions. The Dundee partnership with the MRC delivers a doctoral training program primed to train the next generation of problem solvers, and leaders – people who will contribute to different industries, to our health services, who will advance knowledge in academia and who will make a difference.”

Professor John Rowan, Vice-Principal for Research, Knowledge Exchange and Wider Impact, University of Dundee
The first week of the induction is an opportunity to get to know your peers, receive your laptop and get set up with IT connectivity, discuss your plans with the MRC QIBIOMED management team, and take part in introductory workshops on what it means to be a PhD student, ethics, unconscious bias, time management, problem solving, health and safety, statistics, experimental design and other topics. You will be granted access to MyDundee, which is a portal to detailed information on the specialist scientific training, generic skills courses, symposia, poster sessions and retreats and acts to enhance the student experience.

The induction week is followed by a four-week ‘Best Practice in Biomedical Research’ programme that provides training in the theory and practice of fluorescence-activated cell sorting, protein purification and characterisation, proteomics, mass spectrometry, and cell imaging. Tutors are specialists from our Centre of Advanced Scientific Technologies and you will receive help from experienced lab buddies.

“The Induction gave us the opportunity to refresh or learn new lab techniques, network with other students on the programme and become exposed to the range of cutting-edge technology and facilities offered by the university. Overall, this increased my confidence in starting my PhD.”

Claudia Bento-Pereira, PhD student

School of Life Sciences Lab, University of Dundee
1 + 3 MSc (by Research) - PhD Pathway
University of Dundee

**Year 1**
*Foundation Training*
followed by 1st Year Review

- Induction
- Core Bioscience Training
- Rotation 1
- Rotation 2
- Rotation 3
- Elective Training
- Public Engagement & Outreach

**Year 2**
*Advanced Training*

- Core Bioscience Training
- Elective Training
- Research Project
- Public Engagement & Outreach

**Year 3**
*Professional Training*

- Elective Training
- Research Project
- Public Engagement & Outreach

**Year 4**
*Consolidation*

- Elective Training
- Research Project
- Public Engagement & Outreach
- Careers Workshop
- Thesis writing & submission

Research Skills
Training
Transferable Skills
Year 1

Superseminars, journal clubs and rotation projects in the QIOBIOMED Research Themes

During the five-week induction you will also attend the first set of Superseminars with potential supervisors from the School of Life Sciences, School of Medicine and School of Science & Engineering who are offering a wide portfolio of rotation projects that are aligned with MRC research objectives and focus on the four QIOBIOMED research theme areas —

→ Development, Stem Cells and Neurobiology
Development, Stem Cells and Neurobiology combines mental health research with the strategy of ‘Replace and Refinement’ and is approached from multiple angles ranging from developmental neurobiology, cognitive neuroscience, the genetics and biochemistry of neurodegenerative diseases and addiction and psychiatric disorders.

→ Infection and Disease
Infection and Disease is centered on molecular microbiology, the biochemistry of immunological signalling pathways and parasitology. The research aims to understand the basic biology of microbial pathogens, as well as host immune responses to them.

→ Responses to Cellular Stress
Responses to Cellular Stress focuses on the study of the maintenance of genomic stability, the response to genome and the response to metabolic stresses. These areas are central to many important human diseases, including cancer, diabetes and pathologies associated with aging.

→ Big Data and Translation
Big Data and Translation projects offered are embedded into technological platforms, in particular those producing data from ‘OMICS’ approaches in combination with computational analysis and modelling of molecular data sets in relation to disease.

Inspired by the Superseminars and Journal Clubs, and in consultation with the MRC QIOBIOMED team, you will choose your three rotation projects, which will begin in November, February and April of your first year. Following each rotation project, and with guidance from your supervisor, you will write up a project report and prepare a presentation for a mini-symposium with your peers. Discussing your work with your student cohort and the QIOBIOMED team in this way is stimulating and fun, and provides valuable experience for the future writing and defence of your PhD thesis. After these mini-symposia you will receive verbal feedback during individual meetings with the QIOBIOMED management team.
Here, we provide more information on the four research themes and a few of our principal investigators (PIs) explain why they are excited about their interdisciplinary research in the four QIBIOMED research themes:

“In recent years, many exciting breakthroughs have been made by research groups at the University of Dundee on the theme of Development, Stem Cells and Neurobiology. Understanding the fundamental cellular pathways governing development in cells and tissues will be crucial to decipher molecular mechanisms underpinning a variety of human diseases including many neurological conditions that are currently untreatable.”

Dr Miratul Muqit, Wellcome Trust Senior Research Fellow in Clinical Science, School of Life Sciences, University of Dundee

“Understanding the molecular pathways that control the function of cells of the adaptive and innate immune system is a big strength in Dundee. The immune system is critical for control of our responses to infection with pathogenic viruses and bacteria and can be a key player in controlling cancer. The vision is that a comprehensive knowledge of the molecular processes that maintain the functional competence of immune cells will inform strategies for reprogramming these cells for immunosuppression, vaccination and cancer immunotherapy.”

Professor Doreen Cantrell CBE FRS FRSE FMedSci, Professor of Cellular Immunology & Wellcome Trust Principal Research Fellow, School of Life Sciences, University of Dundee

“Research into Responses to Cellular Stress is an area of focus and strength for the University of Dundee. These cytoprotective mechanisms are essential for maintaining the intracellular homeostasis in a changing environment, ensuring successful adaptation and survival. The ability to mount these responses is compromised in pathological conditions, such as diabetes, cardiovascular and neurodegenerative diseases, and declines with aging.”

Professor Albena Dinkova-Kostova, Professor of Chemical Biology, School of Medicine, University of Dundee

“The University of Dundee has major strengths in Big Data – ranging from large, comprehensive and deeply characterized health data sets linked to genomic and other bioresources, to proteomic and microscopy imaging data. These enable computational approaches to predict outcomes of disease and drug interventions, and to translate findings to biological processes. Ultimately our aim is to use routinely collected health data to better understand disease and improve health outcomes.”

Professor Ewan Pearson, Professor of Diabetic Medicine and Head of Clinical Translational Science, School of Medicine, University of Dundee
Students in School of Life Sciences Lab, University of Dundee
Further mandatory specialist and generic skills training in Year 1:

→ **Introduction to Statistics for Bioscience**
  Introduction to Statistics for Bioscience introduces statistical analysis using the freeware program R and its graphical user interface RStudio, and will enable you to collect, organize and analyse data in order to draw meaningful conclusions. Optional, advanced courses are also available.

→ **Responsible and Ethical Practice in Research and Publication**
  Completion of this introductory workshop and online video course is a mandatory requirement for your transfer of ordinance to the MPhil/PhD track.

→ **Hands on Writing**
  Workshop and six-week step-by-step online course specifically tailored to help PhD students develop good scientific writing skills. It will cover the writing process from pre-writing to proofreading, and provide plenty of opportunities to develop and hone effective writing skills.

→ **CAST and specialist facilities Taster Sessions**
  This one-day workshop will introduce you to the dedicated staff and cutting-edge facilities of our multidisciplinary Centre for Advanced Scientific Technologies and other specialisms, including Drug Discovery, human pluripotent stem cells and The National Phenotypic Screening Centre.

→ **Applied bioinformatics using Python**
  Biology is a data-rich field and the ability to handle it effectively is an important skill. This course will provide a program of training to bring you up to a basic level of competence in Python. From the first lesson, you will using Python to solve biological problems.

→ **Attend the poster presentations by students who are entering the final year of their PhD**
  Ask questions and learn. It won't be long until it’s your turn to present! In 2017, the poster session formed part of a Dundee-Tokyo Postgraduate Student Research Symposium together with around 20 PhD students and academics from University of Tokyo.

→ **Occupational and Professional Development (OPD)**
  All University of Dundee postgraduate research students also benefit from the Researcher Development Programme, which is delivered by OPD, Academic Skills Centre, The Careers Service, Revealing Research and the Centre of Entrepreneurship and at a School level to offer postgraduate researchers a range of opportunities to continue their personal, professional and career development.
Year 2

“The MRC DTP gave me an opportunity to experience many new areas that I wouldn’t have been able to with other PhD programmes. This helped me design a project in an exciting area in which I really enjoy working. Also, being part of a cohort of students also helps makes friends – you quickly feel part of the Dundee Life Sciences Community.”

Tom Youdale,
PhD student

“The wide variety of rotation projects available within the MRC DTP programme gave me a taste of different aspects of the excellent research being performed in Dundee. The opportunity to experience many different labs allowed me to make a well-informed decision about the project I finally chose.”

Marcus Bage,
PhD student

After an option to write up your first-year work as an MSc by research, if you wish, this is the start of your PhD project. During the rotations in year one, you will have found the biomedical problem that excites you most and can start to focus on that particular area.

The MRC-DTP supports exciting new discovery science and promotes the translation of knowledge into tangible benefits relating to healthcare or industry. Depending on the projects and supervisors that have been identified, then interactions with industrial partners can be formalised at the onset of year two through conversion of a DTP award to an iCASE studentship (see later).

You will meet your Thesis Committee, two independent PIs who will monitor your progress and provide mentorship. Students meet their thesis committees formally twice a year (normally Jan/Feb and June/July) during their studentship in order to monitor and discuss progress. Each student and their supervisor will also be asked to complete and submit a progress questionnaire prior to the presentation by the student.

Transfer of ordinance

When you register to undertake postgraduate studies at the University of Dundee, you are initially registered under Ordinance 12 (which governs all research degree students) and only transfer to Ordinance 39 (PhD status) following the successful fulfilment of a transfer process at around 9 months into your main project. For this process you attend a transfer preparation workshop. Thereafter you submit a Transfer report (4,000 words) in discussion with your Supervisors, give a short oral presentation (approximately 20 minutes) to an appropriate forum of peers, and undergo a mini-viva with a ‘Transfer Committee’ made up of your Thesis Committee and one other PI.

Progress, training needs, skills and achievement are recorded every 6 months. We value your opinions on the training that is delivered as part of your programme and we will therefore ask for and act on your feedback.
Years 3–4

You will mainly be focused on your personal research project. However, we also expect you, together with your cohort of QIBIOMED students, to share your experiences through public engagement activities, work on a team problem-solving activity, and by organising the annual retreat.

Training in the final year of your PhD aims to help you in finishing your research project and write up your thesis. To help you with taking the next step in your professional career, QIBIOMED students take part in biennial careers events.

“At the MRC retreats I found the advice given by students who were at a more advanced stage in their PhD and in a different field of research very helpful. For example, I was given suggestions on different ways to present my data and additional experiments that may be beneficial to my research. It was also useful to hear what these students had learnt during the course of their PhDs and what they would have done differently, or kept the same, with hindsight.”

Theresa Tachie-Menson, PhD student
Driving innovation and collaborating with industry remains at the heart of MRC strategy and delivery plans. The Industrial CASE studentships (Collaborative Awards in Science & Engineering) scheme’s objectives are to:

→ provide students with experience of collaborative research with a non-academic partner

→ strengthen and develop collaboration and partnerships between ROs and non-academic partner organisations

→ offer outstanding students an experience of at least two distinct research cultures

→ provide access to a wider-than-usual range of technology, facilities and expertise

→ enable the student to spend a period of time with the non-academic partner (usually no less than three months over the lifetime of the PhD)

Universities in receipt of an MRC Doctoral Training Partnership have the flexibility to convert DTP studentships into iCASE studentships, if appropriate for the project, partners and student.

The MRC QBIOMED PhD programme supports Industrial Collaborative Awards in Science and Engineering (iCASE) studentships. This can involve large multinational companies or small and medium sized enterprises (SME). These awards provide funding for 3.5 yrs on a specific research project that is of interest to an academic supervisor and the industrial partner. The student benefits from a placement of not less than 3 months at the company and so gains direct experience of an industrial workplace.
University of Dundee

Year 1
Foundation & Advanced Training
followed by 1st Year Review

- Induction
- Core Bioscience Training
- Elective Training
- Public Engagement & Outreach

Year 2
Professional Training

- Core Bioscience Training
- Elective Training
- Public Engagement & Outreach

Year 3
Industrial Placement & Consolidation

- Elective Training
- Public Engagement & Outreach
- Careers Workshop
- Thesis writing & submission

- Research Skills
- Training
- Transferable Skills
MRC Flexible Supplement Scheme

As a University of Dundee MRC student you are eligible to apply to the MRC flexible supplement scheme which has been established using block funding provided by the MRC. These flexible funds help fund a variety of research and training activities.

<table>
<thead>
<tr>
<th>Fund</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internships and placements</td>
<td>Time 'out of programme' to complete complementary and beneficial placement (3 months). Suspension of studies may be required.</td>
</tr>
<tr>
<td>High cost training fund</td>
<td>Applications to support high-cost training in recognised areas of strategic need [in line with MRC Strategic Skill Priorities areas] such as bioinformatics, advanced in vivo training or imaging. For example, participation in the online course SysMIC (sysmic.ac.uk/home.html)</td>
</tr>
<tr>
<td>Exceptional training opportunities fund</td>
<td>Placement/training in another research group, training in new advanced research skills and, exceptionally attendance at an interdisciplinary conference removed from primary area of research may be supported.</td>
</tr>
<tr>
<td>In vivo strategic skills awards*</td>
<td>To provide supplementary funding to support research training in advanced integrative mammalian biology</td>
</tr>
<tr>
<td>Industry training fund</td>
<td>Opportunities to provide training with industry or at the interdisciplinary interface</td>
</tr>
<tr>
<td>PhD to postdoctoral transition fund</td>
<td>Increase the competitiveness of outstanding candidates to secure prestigious postdoctoral appointments - e.g. support travel costs of laboratory visits aimed at obtaining postdoctoral positions. Fixed short term funding post-PhD to exceptional candidates to support completion of research works and publication.</td>
</tr>
</tbody>
</table>

*For an in vivo strategic skills award to be granted, verification of the appropriate Home Office project and personal licenses, and a detailed justification for the proposed study, including power calculations will be required.
Networking and Cohort Building

The primary aim of QIBIOMED is to deliver world-class interdisciplinary and quantitative training to PhD students and to build vibrant, collaborative and all-inclusive student cohorts. Training and socialising within your student peer group enhances the student experience. MRC DTP students enjoy multiple networking opportunities from the point of recruitment (interview day facilitates these interactions) and throughout their postgraduate studies.

The five week long induction course is the first point at which QIBIOMED students get to know and interact with their peer group. Thereafter there are the regular meetings at compulsory training events (every 2 weeks), the super seminar series (weekly), and the rotation reporting seminars (every 14 weeks). Students already engaged in their projects help on the induction so interactions also occur there and all the student years come together at the MRC summer school and the MRC annual retreat in the autumn. These latter two events involve students in the MRC PPU programme.

Interactions with students in other schemes occur in activities organised by the student-led association, who run numerous events including an annual symposium, inform the cohort about different aspects of science, and of career opportunities together with a range of social events.
“Funding from the MRC supplement supported a 3-week placement in the MRC Laboratory for Molecular Biology. My time spent in Cambridge allowed me to gain experience in the incorporation of unnatural amino acids into recombinant proteins using engineered bacterial strains, which has been critical in advancing my research project. I could not recommend the MRC PhD programme enough, in particular due to the funding available to enable further training.”

Andrew Waddell, PhD student
MRC Retreat

The students organise and host a themed retreat in the autumn where an out-of-town venue is taken over for two days. Here, selected external speakers and the MRC funded cohort present their results from the varied research projects. The retreat is a chance to get away from the normal environment and to exchange information and ideas in an informal setting, and to plan future outreach activities. Academic staff involved with the programme attend and this allows for discussions and assessment of the PhD programme.
QIBIOMED Contacts

MRC DTP Academic Management Committee

**Professor Bill Hunter**
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QIBIOMED Contacts

Administration

The administration for the MRC DTP programme is led by professional services staff within the School of Life Sciences in conjunction with key contacts in the School of Medicine and the School of Science & Engineering.

Please contact them via sls-phdadmin@dundee.ac.uk in the first instance and a member of the team will help with your enquiry.

Governance

The MRC DTP programme governance is overseen by the Head of Postgraduate Studies in the relevant School.

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As a MRC funded student, a range of other opportunities are open for you to apply for and participate in. We strongly encourage our students to take advantage of these opportunities and can provide you with any support and guidance that is required.
Competitions

The biotechnology YES competition

The biotechnology YES competition - A national competition representing an exciting opportunity to participate, receive training and enhance entrepreneurial skills.

The Max Perutz writing competition

The Max Perutz writing competition - Showcase your writing and communication skills with a prize of £1500 and invitation to science writing master class if shortlisted.

“We’re taught the importance of communication and how to improve writing skills. I was delighted to get nominated for the Max Perutz award and to attend a public science writing workshop and ceremony in London.”

David Allsop, MRC DTP PhD student in Professor Mike Ashford’s research group (School of Medicine) was shortlisted for the Max Perutz prize in 2016.
Policy Internships

→ MRC/Academy of Medical Sciences Policy Internship scheme

An opportunity to gain experience of the medical science policy environment and insights into how research can impact policy.

→ RCUK policy internships for MRC students

Spend three months in one of a selected group of highly influential policy organisations.

For both the MRC/Academy of Medical Sciences Policy Internship scheme and RCUK policy internships, funding is available (stipend extension, travel and accommodation) to successful applicants through the UoD MRC Flexible supplement. Your studentship will be extended by three months to accommodate the internship. We can also provide funding to support participation in the biotechnology YES competition.
Summer School & Public Engagement

The University of Dundee is to transform lives locally and globally. We recognise that we will only reach our full potential to transform lives through a genuine commitment to two-way engagement. This puts engaging with diverse audiences at the heart of everything we do, applying these principles when working with our students and staff; public audiences and external partners.

Sharing and explaining our science is recognised as an integral part of the remit and responsibility of all our scientists. We are keen to involve members of the public, of all ages and from all educational backgrounds, with our passion for scientific research. Therefore, as part of the MRC-DTP Programme you will develop and deliver an innovative annual MRC DTP PhD student outreach event, which forms a key part of your core training programme.

We have a dedicated public engagement team to support public engagement activities, which are delivered in a variety of novel and stimulating ways.

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The School of Life Sciences was awarded a prestigious faculty-level Gold Engage Watermark award from the National Co-ordinating Centre for Public Engagement, the first in the country to do so, in December 2017. The Gold award is awarded to faculties that are beacons of excellence when it comes to sharing their research with the wider community and have an embedded culture of public engagement.

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1Public Engagement activity, University of Dundee
Making your Application

Applicants must complete and submit an online admissions application via uod.ac.uk/mrcdtp-application-guide
Academic Qualifications: Candidates for studentships must hold qualifications at the level of, or equivalent to, a good honours degree from a UK academic institution. This should be a first or upper second-class honours degree. Qualifications, or a combination of qualifications and experience, which demonstrate equivalent ability and attainment will also be considered. For example, a 2(ii) degree may be enhanced by the acquisition of a Masters degree.

We encourage potential applicants to provide as much information as possible to support their application (taking note of the word limits that apply). This enables potential supervisors and Programme committee members to assess your application to its full potential. Applications with poorly completed details are unlikely to be taken forward.

Please be sure to complete the following sections of the form with all relevant information:

- Personal Information
- Education
- Employment history (you will be able to enter up to five sets of employment information)
- List the PhD supervisors you are most interested in order of preference (up to six)
- Please explain why you want to study for a PhD in Dundee and your interest in specific supervisor(s) and why you wish to join the MRC-DTP programme. (Max 500 words)
- Please describe any hands on research you have been involved with explaining the contributions you have made (Max. 300 words)
- References: Contact details for two academic referees or relevant employers in research institutions/companies (we will then contact your referees directly)

Finally, check and submit your application.
How your application is dealt with

Your application is first assessed by the Academic Management Committee, and by any potential supervisors that you identify. References are then sought and a preliminary interview, often by Skype, might be requested to clarify certain aspects of your application. At this point you would be asked to describe a research project that you have carried out.

The formal interview with the Management Committee starts with a 15 minute presentation from you covering research in which you have participated. A Q&A session will then follow. You will also have a chance to ask us any questions you may have about the programme.

A lunch and poster session is arranged around your interview that will allow you to see the diverse areas of research linked to the Doctoral Training Programme, to meet current students and potential supervisors with opportunities for you to find out all about us. This is an opportunity to view our excellent research facilities and to see the campus.

The Academic Management Committee makes the decision on appointments and we send out the offers.

Fees and funding

MRC DTP studentships are funded for 4 years and include the following financial support:

- A tax-free stipend of £16,000 per annum (payable in monthly instalments)
- Full payment of tuition fees at the Home/EU rate
- Costs of the training which are an integral part of this programmes are included as part of your studentship and the supervisors for each of your rotation projects will receive a small budget (£800) to help cover costs incurred
- On entering Year 2 after having chosen your main PhD project, a £13,200 consumables budget is provided to cover Years 2–4, in addition to a total travel budget of £1,500 to support conference attendance
- iCASE studentship funding is for 3.5 years. You will receive an additional £2,500 per annum and the host laboratory £1,400 per annum. A period of three months or more is spent on placement with an industrial partner, who covers all costs associated with travel and accommodation for this period.
- Opportunity to apply to our Flexible Supplement Fund to support a variety of extra training activities
The University of Dundee has a compact but lively campus, situated in the centre of Dundee, five minutes from the city’s premier retail, leisure, cultural and entertainment facilities, and provides for all aspects of life. There is on-site access to extensive sporting facilities and clubs, including the region’s largest gym, a swimming pool and much more.

→ One of only twelve UK universities to have both Teaching Excellence Framework Gold award and Times Higher world top 200

→ The only UK university ranked in the world top 50 of the 2017 NATURE INNOVATION INDEX

→ We are one of Times Higher Education’s world top 200 universities and the top ‘young’ UK university in the ‘200 under 50’ rankings
1 in 5
→ Student friendly city
   With 1 in 5 of the population a student, Dundee is Scotland’s most student-friendly city

Top 4 research grant income
→ Fourth highest proportion of research grant income to total income of any UK university

NO. 1 in Scotland
→ Ranked Top in Scotland for international student satisfaction – International Student Barometer

2017
→ Ranked in the top tier NSS 2017 – one of Times Higher Education’s ‘NSS top tier’ universities

Top 5 most innovative universities
→ 5th in the UK in the REUTERS ‘MOST INNOVATIVE UNIVERSITIES IN EUROPE 2017’ – top Scottish university. 5th in the UK behind only Cambridge, Oxford, Imperial and Manchester. Ranked 21st overall in Europe.

20% up
→ In the UK League tables
   An average 20% rise across Complete University Guide – Times / Sunday Times and The Guardian

Top ranked
→ Top-ranked University for biological sciences research in the Research Excellence Framework (REF)2014

UCAS
→ Top 10 in UK
   for applications per place
   UCAS – Universities and Colleges Admissions Service

18,000 Students
→ Our University is home to more than 18,000 students and over 3000 staff

Top ranked
→ Top in Scotland for the STEM (Science, Technology, Engineering and Mathematics) subjects and Art & Design

→ Student friendly city
→ Fourth highest proportion of research grant income to total income of any UK university
→ Ranked Top in Scotland for international student satisfaction – International Student Barometer
→ Ranked in the top tier NSS 2017 – one of Times Higher Education’s ‘NSS top tier’ universities
→ Ranked in the top tier
→ Top-ranked University for biological sciences research in the Research Excellence Framework (REF)2014
→ Top 10 in UK
   for applications per place
   UCAS – Universities and Colleges Admissions Service
Dundee recently became the UK’s first UNESCO City of Design, a prestigious global award that recognises the huge contribution the city has made to design and innovation worldwide. This innovation continues through Dundee’s £1 billion, 30-year masterplan to design and create an open, inclusive city of the future. At the heart of this plan is the creation of V&A Museum of Design, Dundee, an impressive new centre of 21st century design for Scotland and the world, due to open in September 2018.

“Dundee’s setting is probably more extraordinary than any other city in Scotland or Britain. It is about ideal, as ludicrously ideal, as any city setting could be.”

Stephen Fry, Former Rector, University of Dundee
1 Law Hill, Dundee City Centre
2 Broughty Ferry Castle, Dundee
3 Magdalen Green, Dundee City Centre
Dundee is the happiest student community in Scotland. How have we managed this, you ask? Well it could be something to do with our excellent support services which looks after you all the way from fresher’s week to graduation. These include:

→ Enquiry Centre
→ Careers Service
→ Counselling Service
→ Student Funding Team
→ Disability Services
→ University Health Service
→ Peer Connections
→ Chaplaincy
→ Nursery provides place for students who need childcare

We also offer comprehensive academic support so you can always achieve success. Our academic support services are fully integrated and offers lots of workshops, skills training and even one to one tuition appointments.

There are a number of ways in which you can engage more closely with the MRC DTP programme and also wider School/University activities. Participation can enhance your leadership skills and provide greater insight into the operations and management in a Higher Education Institute – valuable assets for your CV and future careers!

→ MRC Summer School – this annual event is student-led (primarily by students in their 3rd year) and focuses on three alternating themes: Quantitative Bioscience; Interdisciplinary Interfaces in Biomedicine; Translational and Organismal Biomedicine.

→ All of our research divisions have PhD representatives who sit on the divisional management meetings. These can be a great way of getting more involved in your associated division and representing the voice of your peers.

→ PICLS is the School of Life Sciences PhD Students’ Association and it has been successfully running for many years contributing key elements to our postgraduate community. New committee members are always welcome. The chair of the committee (or representative) is invited to sit on the School Research Committee. For further information, contact PicLS-PhD@dundee.ac.uk

→ We are always looking for stories and material for our website and social media channels. If you are a keen blogger or want to contribute to tweets about MRC training events or other activities we want to hear from you.

1 Main Library, University of Dundee
2 Tay Bridge, Dundee
Cost of living

Dundee offers excellent value for money with the cost of living around 14% lower than the UK average. To have a look at a typical student budget at Dundee, please visit uod.ac.uk/livingcosts

Come and visit us

Open days are the best way for you to get a real feel for the University before you apply. During your visit, there will be lots going on including: information stands; demonstrations in departments; tours of the campus and departments; student life presentations; and student finance talks.

Everyone is welcome to attend, including parents, partners, teachers and careers advisers. Our upcoming postgraduate open day is Wednesday 7th November 2018. We’d love to welcome you to our campus. Sign up at dundee.ac.uk/opendays

Individual visits

While we encourage you to come to one of our organised open days, we recognise that this is not always possible. Individual visits take place almost every month and include a tour of the campus and student accommodation led by a student ambassador. The tour usually takes around 45 minutes and offers the opportunity to see the campus facilities, get a feel for the University and speak to a current student about university life.

A member of admissions staff will be available after your tour to answer any questions you may have about applying. To find out more and to book your place visit uod.ac.uk/opendays
Where we are

Being at the heart of Scotland’s road and rail network puts spectacular scenery, skiing, championship golf, mountain climbing and sailing within easy reach. The major cities of Edinburgh and Glasgow are a short trip away. Scotland’s four main international airports all operate national airlines, such as British Airways, and low cost airlines. This makes it easy to get to all the major centres of the UK and Europe. dundee.ac.uk/travel
1 V&A Museum of Design, Dundee
2 Tay Bridge, Dundee
3 Dalhousie Building, University of Dundee