

## Course Information Sheet for entry in 2019-20

### Sustainable Approaches to Biomedical Science: Responsible and Reproducible Research (EPSRC and MRC Centre for Doctoral Training)



#### About the course

The EPSRC and MRC Centre for Doctoral Training in Sustainable Approaches to Biomedical Science: Responsible and Reproducible Research (SABS: R<sup>3</sup>) is an innovative open collaboration between the University of Oxford and 22 partner industrial organisations.

SABS: R<sup>3</sup> is predicated on the increasing reliance of biomedical research on computational approaches, and hence on well-engineered research software. The programme aims to train first-rate biomedical scientists equipped with the skills needed to transform their research through the creation of innovative, reusable computational tools and solutions for cutting-edge biomedical research problems.

This four-year programme of research and training has strong industrial links, with each student having both academic and industrial supervision.

The programme enables students from a range of quantitative scientific backgrounds to focus on biomedical research problems, including the design and testing of new chemical and biological entities, the modelling of biological and physiological systems, the robust analysis of large complex datasets and the development of novel computational methods for medical and biological imaging. This cross-disciplinary work introduces students to cutting-edge software engineering, machine learning, chemoinformatics, computational simulation, bioinformatics, data mining, statistical analysis, physical and structural study of biomolecules, mathematical modelling, and medical and biological imaging. Underpinning the entire programme will be an appreciation of the vital importance of taking a responsible and reproducible approach to computational biomedical research.

The CDT's industrial partners are currently AstraZeneca, BenevolentAI, the Cambridge Crystallographic Data Centre, Diamond Light Source, Elsevier, e-Therapeutics, Exscientia, GE Healthcare, Hoffmann La Roche, Lhasa, LifeArc, Lurtis, MedImmune, Microsoft Research, Moffitt Cancer Center, Novo Nordisk, Oxford Drug Design (formerly InhibOx), Perspectum Diagnostics, SimOmics, UCB, Unilever and Zegami.

A major advantage of the programme is that you are not required to choose the substantive DPhil project until after the initial taught training phase, allowing a more informed choice of research project to be made.

The first six months of the course are devoted to acquiring advanced software development and theoretical and technical skills that form the backbone of interdisciplinary research in this area. This training draws from the engineering, mathematical, physical, chemical and biological sciences through a combination of intensive lecture courses, project work and hands-on software development. Each taught module lasts for either one, two or three weeks and is assessed using a method appropriate to the course, for example, open-source software development, presentations, group assignments or assessed written work. This will be complemented with relevant research and communication skills training throughout the four years of the programme. A key element of the programme is the group-development of an open-source software solution to a current research problem put forward by our industrial collaborators.

After completion of the taught training phase, you will undertake two exploratory research projects of thirteen weeks duration each, similar in scope to a master's-level project, followed by the substantive DPhil project. You will be based within the research group of your principal supervisor for these, which may be in the University or with an industrial partner.

#### Changes to courses

The University will seek to deliver this course in accordance with the description set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. For further information, please see the University's Terms and Conditions.

#### Expected length of course

4 years

## Costs

### Annual fees for entry in 2019-20

Fee status	Annual Course fees
Home/EU (including Islands)	£7,665
Overseas	£23,950

The fees shown above are the annual course fees for this course, for entry in the stated academic year.

Course fees cover your teaching as well as other academic services and facilities provided to support your studies. Unless specified in the additional information section below, course fees do not cover your accommodation, residential costs or other living costs. They also don't cover any additional costs and charges that are outlined in the additional cost information below.

Course fees are payable each year, for the duration of your fee liability (your fee liability is the length of time for which you are required to pay course fees). For courses lasting longer than one year, please be aware that fees will usually increase annually. For details, please see our guidance on likely increases to fees and charges.

Graduate students who have reached the end of their standard period of fee liability may be required to pay a termly University and/or a college continuation charge.

The University continuation charge, per term for entry in 2019-20 is £488, please be aware that this will increase annually. For part-time students, the termly charge will be half of the termly rate payable by full-time students.

If a college continuation charge applies (not applicable for non-matriculated courses) it is likely to be in the region of £100 to £400 per term. Please contact your college for more details.

### Additional cost information

There are no compulsory elements of this course that entail additional costs beyond fees (or, after fee liability ends, continuation charges) and living costs. However, please note that, depending on your choice of research topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, and field trips. You will need to meet these additional costs, although you may be able to apply for small grants from your department and/or college to help you cover some of these expenses.

## Living costs

In addition to your course fees, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.

The likely living costs for 2019-20 are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

	Likely living costs for 1 month		Likely living costs for 9 months		Likely living costs for 12 months	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
<b>Food</b>	£265	£371	£2,387	£3,342	£3,183	£4,456
<b>Accommodation</b>	£566	£739	£5,093	£6,655	£6,790	£8,874
<b>Personal items</b>	£122	£271	£1,098	£2,435	£1,464	£3,246
<b>Social activities</b>	£42	£126	£380	£1,138	£506	£1,518
<b>Study costs</b>	£40	£88	£359	£788	£478	£1,051
<b>Other</b>	£23	£48	£208	£432	£277	£576
<b>Total</b>	£1,058	£1,643	£9,525	£14,790	£12,698	£19,721

When planning your finances for any future years of study at Oxford beyond 2019-20, you should allow for an estimated increase in living expenses of 3% each year.

More information about how these figures have been calculated is available at [www.graduate.ox.ac.uk/livingcosts](http://www.graduate.ox.ac.uk/livingcosts).