Mr Paul Trimmer Accreditation Manager Royal Society of Biology Charles Darwin House 12 Roger Street London, WC1N 2JU

Dear Mr Trimmer,

Thank you for inviting us to take part in the Accreditation of degrees in the Biosciences. We are submitting the following programmes for Accreditation:

- BSc (Hons) Biochemistry
- BSc (Hons) Biochemistry with a Year Abroad
- BSc (Hons) Biochemistry with a Professional Year
- BSc (Hons) Biology
- BSc (Hons) Biology with a Year Abroad
- BSc (Hons) Biology with a Professional Year
- BSc (Hons) Biomedical Science
- BSc (Hons) Biomedical Science with a Year Abroad
- BSc (Hons) Biomedical Science with a Professional Year

We are providing the relevant documentation in this Dropbox folder, but we wish to highlight the following points.

Each of these degree programmes is based around the subject-specific three-year core, with an optional Year Abroad or Professional Year. Years Abroad are spent in partner institutions in other countries (see *Programme Specifications* in folder 2 and further details in 4.2 within folder 4). The Professional Year aims to encourage the application and development of the knowledge and skills gained during a biosciences degree in the workplace (see *Programme Specification* in folder 2 and further details in 4.2). Please note that the aims of the Professional Year are distinct from the Sandwich Year,

it does not require an extended research project.

We are also including in our submission the Biomedical Science degrees, which are already accredited by the IBMS. We believe that RSB accreditation of these degrees would add substantially to their value, particularly for the majority of our students on these programmes who do not go on to careers in the NHS.

We believe our degree programmes each meet the core requirements for accreditation set out in your criteria.

1. A graduating level capstone experience which includes the analysis and critical evaluation of data within an independently produced piece of work

All students undertake a Final Year (Stage 3) 30 credit Research Project. In this project, they marshal all the skills and subject knowledge they have gained in their previous studies in order to address a significant scientific question. Details of this are provided in the *Programme Specification* (Folder 2), the *module specification* (3.1 in folder 3) and further documentation in 3.2. The projects can take a variety of forms (among them laboratory and computing/bioinformatics and dissertations that include critical analysis). We seek to promote additional science communication and business skills through projects in these areas too: further comments on these types of projects are given in 6 below.

2. Demonstration of the acquisition of technical skills and familiarity with the practical environment

All our students undertake a wide range of practicals that span all three years of the degrees. Practicals are listed in the *module specifications* (3.1). We have also provided a further matrix of practical skills in folder 4.5 (file *Practical skills matrix*), together with definitions of threshold and typical standards (file *Skills standards*). We have recently appointed

to the position of Senior Demonstrator: this will enable us to develop and take forward further innovative provision in practical teaching for both undergraduates and postgraduates.

3. The development and use of transferable graduate skills

Throughout the degree programmes, we develop transferable graduate skills. *Programme specifications* (folder 2) define the nature of the skills we seek to develop. The relation of these skills to the modules and programmes is further exemplified in the matrix file *Assessments and Skills* (folder 4.5). As noted in this matrix, we have recently developed a programme via the Academic Advisor system, which focuses on transferable skills, personal development planning and employability. Further details of this are given in the folder *Academic Advisor tutorial programme* within folder 4.1.

4. A foundation in mathematics, statistics, chemistry and physics within a biological context appropriate to the discipline

We have never found it productive to have separate maths/stats modules: this used to be the system here some years ago, but it was unpopular with the students and led them to think of maths and stats as somehow separate from the practise of modern bioscience. Instead, maths and stats are deeply embedded within our modules, and are a recurring theme, especially in practical teaching. Practicals involving calculations and other mathematical skills are noted in the *Practical skills matrix* (4.5), and modules with a maths/stats component are also noted in the matrix file *Assessments and Skills* (4.5).

5. Specific skills and knowledge appropriate to the degree title

Our degrees meet QAA benchmarks (see most recent *periodic programme review* folder 5.2, and *external examiner reports* folder 5.1). Subject-specific skills are documented in *programme specifications* (2) and *module specifications* (3.1). Subject-specific skills developed through practicals are noted in the *Practical skills matrix* (4.5).

6. Developing Creativity and Innovation

Over many years we have sought to engage our students with approaches that foster both creativity and innovation. This has both assessed and non-assessed elements.

Assessed elements

Group work to solve problems. Working in groups or teams to solve problems is part of our approach to practicals (*Practical skills matrix* 4.5), and we draw attention to the group work component of

Business innovation. Final year projects as noted above include a business option. The Business School module **Sector Sector** is available as an option to Biology students. The Professional Year option allows students the possibility of working within a business to develop and apply their broader skills.

Scientific communication. Scientific communication final year projects aim to enhance students' abilities to communicate complex issues to wider audiences. Students who are particularly successful in the projects are selected to give presentations on their projects to local schools in conjunction with the University's Partnership Development Office.

Non-assessed elements

Second Year Summer placements. We encourage students at the end of their second year to apply for placements in research laboratories, either within the School of Biosciences, or if they prefer, at institutions closer to their homes. We facilitate applications for bursaries from learned societies, and the School itself makes a number of bursaries available. We have recently developed NHS summer placements in clinical research (developed by Generation). For the last two years teams of our undergraduates have entered the iGEM (International Genetically Engineered Machine) competition using summer placement time to develop much of the work (see folder *Summer Placements* in folder 4.2).

Engagement with artists/writers. We have consistently engaged with, and encouraged students to interact with, non-scientists. For example, we had an artist in residence **Engagement**, who worked with undergraduate and postgraduate/postdoctoral scientists to develop a series of images from pinhole cameras and photograms to interpret the life and work of the School.

The Student Learning Advisory Service in the Unit for Enhancement of Learning and Teaching has two Royal Literary Fellows, service and the enhance student writing.

Broader campus initiatives. All our students are able to take advantage of broader Campus initiatives. For example:

scheme, launched in 2002, recruits undergraduate and postgraduate students to represent the University at on-campus events as well as in local schools, colleges and the community.

scheme rewards students for active engagement in extracurricular activities.

provides additional non-credit-bearing courses for registered students at the

As closing points, in 2014, was awarded a National Teaching Fellowship, the second to be awarded to the School of Biosciences: our other NTF is held by was also a finalist in this year's HE Biosciences Teacher of the Year competition. Was awarded a Faculty teaching prize in 2014 for his innovation in teaching Virology.

Finally, we had an outstanding result in the NSS 2014:

If there are any further details/documentation the Accreditation team wish to see, please do not hesitate to contact us.

Yours sincerely,

