

Programme Specification

Awarding Body/Institution	Queen Mary, University of London
Teaching Institution	Queen Mary, University of London
Name of Final Award and Programme Title	MSc in Neuroscience and Translational Medicine
Name of Interim Award(s)	PG Diploma in Neuroscience and Translational Medicine and PG Certificate in Neuroscience and Translational Medicine
Duration of Study / Period of Registration	1 year
QM Programme Code / UCAS Code(s)	A3F4
QAA Benchmark Group	N/A
FHEQ Level of Award	Level 7
Programme Accredited by	N/A
Date Programme Specification Approved	5 Jul 2012
Responsible School / Institute	Blizard Institute

Schools which will also be involved in teaching part of the programme

N/A

Institution(s) other than Queen Mary that will provide some teaching for the programme

N/A

Programme Outline

In modern medicine and biomedical sciences there is an increasing need for scientists and clinicians who understand the challenges of developing better treatments, and also master the knowledge involved in rapid translation of a discovery from the bench to the clinic. These aspects are included in the concept of “translational medicine”. There is a strong move towards translational medicine, exemplified by the development of centres for translational research in many prestigious academic institutions worldwide. In the UK, the Medical Research Council and the National Institute for Health Research have recently launched a joint strategy aimed at strengthening translational research. However, the training of specialists in translational medicine is at a very early stage in many countries, including the UK. In particular, the need for more elite physician scientists in the UK is exemplified by surveys such as that carried out by the British Medical Association and the Medical Schools Council [previously the Council of Heads of Medical Schools], who have highlighted the difficulty in filling top-level clinical research positions in Britain’s top medical institutions.

Although many centres of excellence in neuroscience in the UK are developing translational activities, no such post-graduate programme exists at present in the UK or the rest of Europe. Similarly, in the USA there are centres for translational research, but there is no evidence of this type of post-graduate programme. The students taking this programme will develop general and transferable skills in the field of drug discovery and drug development and clinical trial management, combined with in-depth

knowledge in a chosen speciality. Neurology is a medical field where the clinical unmet needs are numerous, and the scope for high quality translational medicine is significant. In particular, the UK is not in a good position in terms of number of neurology specialists in the population, compared to other European countries. A post-graduate course in Neuroscience and Translational Medicine organised in London could not only attract overseas students with an interest in this field but would also contribute significantly to the high quality training of the next generation of physician scientists specialising in neurology in the UK. We expect that a successful graduate training programme in Neuroscience and Translational Medicine will have strong support from the Association of British Neurologists, the British Neuroscience Association and the Federation of European Neuroscience Societies.

Aims of the Programme

To provide an critical insight into modern concepts in the neurobiology relevant to major diseases of the nervous system
To identify clinical unmet needs in selected disease areas in neurology
To critique new approaches to disease diagnosis and the assessment of treatment efficacy
To discuss the process of drug discovery, including the pre-clinical phase and clinical drug development
To evaluate and appraise the knowledge required to design, organise and run a clinical trial
To discuss the legal processes underlying intellectual property rights and the governance of clinical trials
To synthesise information regarding the translational process using specific examples in neurological pathology.

What Will You Be Expected to Achieve?

Students who successfully complete the programme will have detailed knowledge of the drug discovery and development process, clinical trial design and methodology, and the regulatory environment. The research project provides training in laboratory skills and research techniques, data analysis, oral presentation skills, and critical appraisal of the scientific literature. This training will provide essential transferable skills for a future career path, and also provides excellent training to students who wish to pursue a PhD.

Academic Content:

A 1	Demonstrate a comprehensive and detailed knowledge of translational science and the steps involved in drug discovery and drug development, its application and an awareness of the provisional nature of such knowledge.
A 2	Demonstrate the ability to critique the clinical specific needs and translational challenges in specific areas of neurology
A 3	Evaluate advanced scholarship critically in evidence-based neuroscience, and make a case for alternative approaches.

Disciplinary Skills - able to:

B 1	Produce scholarly work, to demonstrate skills of analysis, synthesis, reflection and critical evaluation.
B 2	Contextualise the practical, scientific and ethical framework of the research process.
B 3	Evaluate advanced scholarship critically in evidence-based neuroscience, and make a case for alternative approaches.

Attributes:	
C 1	Synthesise information in a manner that may be innovative, utilizing knowledge or processes from the forefront of the discipline/practice and from a wide range of sources.
C 2	Demonstrate good skills in critical appraisal of the literature and written presentation.
C 3	Apply an individualised approach towards case-studies, via evidence-based education and practice in neuroscience.
C 4	Demonstrate the ability to evaluate data and apply the bench- to- the clinic process, addressing a translational medicine issue.
C 5	Undertake a scientific and evidence-based approach to prepare a dissertation related to neuroscience.
C 6	Demonstrate initiative and originality in problem-solving

How Will You Learn?

Learning strategy

- Students will maintain a file of the work carried out in the core module, which could be used subsequently during the subsequent specialised modules and the project module.
- As self-directed learning is a major component of each module, students will be encouraged to be pro-active in identifying their own learning needs as modules progress. As a guide, the typical number of hours that a student should expect to spend studying is 10 hours per credit
- Each student will be followed throughout the programme by the Programme Director and by a personal tutor, designated on entry to the course. The personal tutors will advise on issues arising from the course, and will act as mentors and advise on post-course employment and further training opportunities.
- Students will have full access to the college/medical school library and student computing facilities.
- Students will be encouraged to attend seminar programmes organised regularly in the Centre for Neuroscience and Trauma, Blizard Institute, the School of Medicine and Dentistry and the College.
- Increasingly the course will use the virtual learning environment provided by the College (QM+ from September 2012). This will enable lecture notes and handout material to be available electronically, with potential for discussion and question boards. Gradually, this will permit whole modules to be delivered on-line, so that some of the course can be undertaken in future as distance-learning.

How Will You Be Assessed?

Assessment strategy

Full attendance is expected throughout the course and is a pre-requisite for successful completion of the programme (legitimate reasons for absence excused).

The full programme comprises taught modules (to the total value of 120 credits) plus the research project (equivalent to 60 credits), with each credit contributing equally to the final mark.

The core module ICMM926 will be assessed through in-course written assignments and a final written examination. The five specialised modules in semester two will each be assessed through in-course work, such as group presentations, case studies, verbal presentations, critical reviews and essay assignments, and a written examination. The relative contribution of each assessment component will be comparable between modules.

The overall result will reflect the College's marking scheme for categorisation of degrees for taught PG programmes, as follows:

Pass: 50-64%

Merit: 65-69%

Distinction: 70%+

Programme Title: MSc in Neuroscience and Translational Medicine

Only students who satisfactorily pass the 120-credit taught modules (minimum 50% pass for each module) will be eligible to proceed to the 60-credit project module.

The award of the degree will be made only when all modules are satisfactorily completed and passed. In the event of a candidate achieving an overall average score of <50% for each of the taught modules, the candidate may take a single re-sit of the required module(s) during the next academic year. Re-sits will be capped at 50%.

Students who satisfactorily pass the first module (ICMM926 - worth 45 credits) and at least one of the 15 credit specialised modules (i.e. a total of at least 60 credits), will be eligible for the PG Cert award. A student who satisfactorily passes the 120-unit taught modules, but fails to complete the project, will be eligible for the PG Dip award.

How is the Programme Structured?

Summary of the Programme Content

Taught component:

Core module (45 credits; assessed by in course work (30%) and a written examination (70%)

Fundamentals of Drug Discovery and Drug Development ICMM926 Core Module

Specialised modules (15 credits/module, 75 credits in total; each assessed by in-course work (20%) and an examination (80%)

Neurotrauma and Stroke module - ICMM927 - Core Module

Neuroinflammatory and Autoimmune diseases module - ICMM928- Core Module

Neurodegenerative Diseases module - ICMM929- Core Module

Chronic Pain and Epilepsy module - ICMM930 - Core Module

Neuro-oncology module - ICMM931 - Core Module

Research component:

Research project module (60 credits) ICMM932 - Core Module

MSc students must successfully complete and pass all the taught modules to the value of 120 credits and undertake an original research project, which will be submitted as a dissertation (equivalent to 60 credits). This represents a total of 180 credits.

Academic Year of Study 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Fundamentals of Drug Discovery and Drug Development	ICMM926	45	7	Core	1	Semester 1
Neurotrauma and Stroke	ICMM927	15	7	Core	1	Semester 2

Programme Title: MSc in Neuroscience and Translational Medicine

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Neuroinflammatory and Autoimmune disease	ICMM928	15	7	Core	1	Semester 2
Neurodegenerative disease	ICMM929	15	7	Core	1	Semester 2
Chronic pain and Epilepsy	ICMM930	15	7	Core	1	Semester 2
Neuro-oncology	ICMM931	15	7	Core	1	Semester 2
Research Project and Dissertation	ICMM932	60	7	Core	1	Semester 3

What Are the Entry Requirements?

- BSc in the biomedical science field (minimum grade 2:2); e.g. degrees in Physiology, Biological Sciences, Neuroscience, Pharmacology.
- medical degree, dentistry or pharmacy degree
- Overseas qualifications at degree level from a university or an institution of university rank

Other requirements:

- a) Students will be expected to be familiar with basic neuroscience concepts, at the level covered in the type of undergraduate studies specified and reflected in the academic transcripts.
- b) Proficiency in written and spoken English is essential and non-native English speakers are required to have a minimum IELTS score of 7 or an IBTOEFL score of 100.

How Do We Listen and Act on Your Feedback?

The Staff-Student Liaison Committee provides a formal means of communication and discussion between Schools and its students. The committee consists of student representatives from each year in the school/institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Staff-Student Liaison Committees meet regularly throughout the year.

Each school operates a Learning and Teaching Committee, or equivalent, which advises the School/Institute Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in this Committee's work in a number of ways, such as through student membership, or consideration of student surveys.

All schools operate an Annual Programme Review of their taught undergraduate and postgraduate provision. The process is normally organised at a School-level basis with the Head of School, or equivalent, responsible for the completion of the school's Annual Programme Reviews. Schools/institutes are required to produce a separate Annual Programme Review for undergraduate programmes and for postgraduate taught programmes using the relevant Undergraduate or Postgraduate Annual Programme Review pro-forma. Students' views are considered in this process through analysis of the NSS and module evaluations.

Academic Support

- One-day programme induction for orientation and introducing study skills. This is followed by a two week programme that includes practical laboratory techniques, seminars focused on writing and critical appraisal skills, and workshops teaching oral presentation skills.

Programme Title: MSc in Neuroscience and Translational Medicine

- Course handbook with timetable, other course information and contact details.
- Dedicated intranet website with access to lecture material, assignments and other course information.
- Library facilities with electronic access from distant sites.
- Personal Tutor System: each student will meet with the Programme Director once a semester. They will also be assigned at the beginning of the course, a personal tutor who will act as a mentor to provide support and advice during the course, and advice for career development and further training opportunities.

Programme-specific Rules and Facts

Classification of award: Special regulations

College Mark of 70.0% to 100.0% and a Module Mark of 70.0% or more in the dissertation/ project	Distinction
College Mark of 65.0% or more and a Module Mark of 65.0% or more in dissertation/project	Merit
College Mark of 50.0% or more	Pass

Formal progression points at the end of semester one (module ICMM926) and also at the end of semester two, after the five specialised modules ICMM927-ICMM931. Progression will be considered and agreed by the Subject Examination Board at each of these points.

Specific Support for Disabled Students

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia
- Applying for funding through the Disabled Students' Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one "study skills" tuition
- Ensuring access to course materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Mentoring support for students with mental health issues and conditions on the autistic spectrum.

Links With Employers, Placement Opportunities and Transferable Skills

There are no formal employer links for this programme. However, the programme will offer an opportunity for graduates to further their career prospects within their own professional specialty, through the acquisition of:

1. A broad knowledge of translational medicine
2. An understanding of the steps involved in drug development
3. Acquisition of skills for carrying out clinical trials within their area of interest in neuroscience.

Programme Specification Approval

Programme Title: MSc in Neuroscience and Translational Medicine

Person completing Programme Specification

Professor Adina Michael-Titus

Person responsible for management of programme

Ms. Sharon Averill and Professor Adina Michael-Titus

**Date Programme Specification produced/amended
by School Learning and Teaching Committee**

**Date Programme Specification approved by
Taught Programmes Board**

5 Jul 2012