MRes in Experimental Neuroscience

Department of Medicine
Faculty of Medicine

Handbook
(October 2016 - September 2017)
Front cover:

(a) Coronal section showing the ventral origin of cortical interneurons (labelled with antibodies for the transcription factors Olig2, green; Mash1, red) in the embryonic mouse forebrain.

(b) In-vitro staining of active microglia (arrows) surrounding neurons (*).

(c) In-vivo imaging of active microglia in normal controls and PD patients using PET and [11]C-(R)-PK11195.
The Graduate School
Welcome from Professor Sue Gibson, Director of the Graduate School

The Graduate School has several roles but our main functions are to provide a broad, effective and innovative range of professional skills development courses and to facilitate interdisciplinary interactions by providing opportunity for students to meet at academic and social events. Whether you wish to pursue a career in academia, industry or something else, professional skills development training will improve your personal impact and will help you to become a productive and successful researcher.

Professional skills courses for Master’s students are called “Masterclasses” and they cover a range of themes, for example, presentation skills, academic writing and leadership skills (http://www3.imperial.ac.uk/graduateschool/currentstudents/professionalskillsmasters/masterclassprogramme). All Masterclasses are free of charge to Imperial Master’s students and I would encourage you to take as many as you can to supplement your academic training. The Graduate School works closely with the Graduate Students’ Union (GSU) and is keen to respond to student needs so if there is an area of skills training, or an activity that you would like us to offer, but which is not currently provided, please do get in touch (graduate.school@imperial.ac.uk).

The Graduate School also runs a number of exciting social events throughout the year which are an opportunity to broaden your knowledge as well as to meet other students and have fun. Particular highlights include the Ig Nobel Awards Tour Show, the Chemistry Show and the 3 minute thesis competition. You should regularly check the Graduate School’s website and e-Newsletters to keep up to date with all the events and training courses available to you.

Finally, I hope that you enjoy your studies here at Imperial, and I wish you well.

Sue Gibson
I would like to welcome you to the Graduate School programme for postgraduate professional development. Our team of tutors come from a wide variety of experiences and we understand just how important it is to develop professional skills whilst undertaking postgraduate studies and research. Not only will this development improve success during your time at Imperial, but it will also prepare you for your future careers. We are continually working to develop the courses we offer and over this year you will see a range of new courses including face-to-face workshops, interactive webinars and online self-paced courses. I encourage you to explore and engage with the diverse range of opportunities on offer from the graduate school and I wish you well in your studies.

Janet De Wilde
I am delighted to welcome you to Imperial, and to the Graduate Students’ Union (GSU). I hope that your time here will be fulfilling and valuable, and the GSU is here to try and facilitate this.

Imperial College London is such a wonderful and transformative place that provides a unique and thrilling environment for research and for advanced studies, and the graduate students are a vital and valued part of the wider community of Imperial. Our graduate students are at the forefront of the research done. Therefore, at the GSU we ensure that the experience here fosters both academic achievement and personal development in our students.

The GSU is a University-wide representative body for postgraduate students at Imperial. It promotes the interests and welfare of its members, provides social and recreational activities and advocate for you and your opinions to the University and bodies external to the university. I encourage you to become an active member of the GSU—through involvement in your departments and the many University societies, and through our representational and campaigning activities.

I wish you all a fantastic time here at Imperial. Please take advantage of our rich community, and hope to meet you all soon.

Ahmed Shamso
gsu.president@imperial.ac.uk
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1. **Introduction**

Professor Alice Gast is the president of the Imperial College London and oversees all functions of the College.

**Imperial College London, Faculty of Medicine**

The Imperial College Faculty of Medicine is an internationally renowned centre for clinical teaching and research. The Dean of the Faculty of Medicine is Professor Gavin Screaton and the head of the Department of Medicine is Professor Martin Wilkins. The Faculty is mainly based in four campuses: South Kensington (Alexander Fleming building), Charing Cross Hospital, Hammersmith Hospital and St Mary’s Hospital. The hospitals on these sites come under the umbrella of the Academic Health Science Centre, a partnership between Imperial College London and Imperial College Healthcare NHS Trust, and are thus well placed to move from basic research to clinical trials within the one organisation.

The MRes in Experimental Neuroscience course is be based at the Hammersmith Hospital campus. Students will also be able to use all the facilities at the main Imperial College campuses at South Kensington, Charing Cross and St Mary’s campuses. Research laboratory facilities for research project work are available across campuses within the Division of Brain Sciences.

**Introduction to the Division of Brain Sciences**

The Division of Brain Sciences, headed by Professor Paul Matthews, is sub-divided into laboratory and clinical departments, located at the Hammersmith Hospital Campus (HH), the Charing Cross Campus (CX, the major clinical neuroscience provider in West London), and St Mary’s Campus (SM).

The Division has excellent research facilities at the Hammersmith Hospital, the embedded Multiple Sclerosis Society and Parkinson’s UK Tissue Banks, the new Wellcome Trust McMichael Clinical Research Facility, clinical and preclinical MRI and PET and the co-localised Imanova imaging centre. There is a broad spectrum of research, “from the bench to the bedside”, with a particular emphasis on the application of modern scientific techniques to questions relevant to understanding the pathogenesis of disease and developing new approaches to treatment. Research at all levels is very disease orientated. It is successful at attracting funding from the Medical Research Council, the Biotechnology and Biological Sciences Research Council, the Wellcome Trust, the European Union and many other research charities.

The Research Centres of the Division are in the areas of:

- Neuroinflammation and Neurodegeneration
- Restorative Neuroscience
- Clinical Translation
- Mental Health
- Neuropsychopharmacology
Cellular and molecular neuroscience, targeting inflammatory and neurodegenerative disorders, is based mainly in the Wolfson Neuroscience Laboratories on floor 4 of the Burlington Danes building. The bulk of Clinical Neuroscience is at the Charing Cross campus while Neuroimaging groups are primarily based in Hammersmith Hospital, and on floor 3 of the Burlington Danes building (Computational, Cognitive and Clinical Neuroscience Laboratory, C³NL) at the Hammersmith campus. The main areas of clinical neuroscience research currently undertaken are mechanisms of recovery from stroke and brain injury, neuroprotection in multiple sclerosis, the genetics of epilepsy, relieving neuropathic pain and autonomic dysfunction, treatment of movement and balance disorders, neuromuscular disorders, diagnosis and treatment of dementia and cognitive disorders, severe mental disorders, neuroimaging and imaging analysis.

Each Centre has monthly seminars as well as regular journal clubs and ad-hoc seminars. Each laboratory also holds regular informal meetings at which current research progress is discussed, these activities provide an important training programme for postgraduate students who are working towards a higher degree (PhD, MD(Res), MRes and MSc). In addition, the Division organises a “bench to bedside” seminar series to highlight the translational nature of much of the work undertaken within the Division.

Graduate School

As soon as you begin your postgraduate studies at Imperial College you automatically become a member of the Graduate School. Membership means you become part of a wider community, broadening and enriching your academic experience.

http://www3.imperial.ac.uk/graduateschool

MRes Experimental Neuroscience

http://www1.imperial.ac.uk/departmentofmedicine/postgraduate/experimentalneuroscience/

The MRes enables students to follow a structured one year programme which offers hands on experience of the application of a wide range of core techniques to current areas of neuroscience research coupled with a strong theoretical grounding in the fundamentals of neuroscience. It thus prepares the students for the rigors of research and equips them to make a more informed choice of PhD.

The programme aims/objectives are to:

- Develop core transferable skills such as oral and written presentations.
- Develop an understanding that enables students to critically evaluate current research and associated techniques.
- Develop hands on practical skills in a wide range of experimental techniques
- Develop skills in experimental design and data analysis
Students should gain:

Knowledge and Understanding of:
- the range of topics and experimental approaches in modern neuroscience
- the research process that enables the student:
  (i) to evaluate critically current research
  (ii) to evaluate methodologies and develop critiques of them
  (iii) to design and conduct appropriate research

Intellectual Skills:
- A broad understanding of neuroscience
- The ability to critically evaluate the state of knowledge derived from neuroscience research.
- The ability to formulate hypotheses based on an understanding of neuroscience

Practical Skills:
- The ability to design experiments with clear outcomes
- Experience of a wide range of experimental techniques
- The analysis of experimental results including the use of appropriate statistics

Professional Skills Development:
- The ability to communicate information and ideas in written and oral form
- The ability to work as part of a team and as an individual
- Decision-making in complex and unpredictable situations
- The independent learning ability required for continuing professional development.

Those students who choose not to follow a PhD will end the MRes course with an enhanced understanding of the research process and training in transferable skills. They will be offered careers advice during the course regarding the range of options available.

For program specifications and competence standards see also: http://www1.imperial.ac.uk/departmentofmedicine/postgraduate/experimentalneuroscience/

Staff and their responsibilities

The MRes in Experimental Neuroscience is based on the Hammersmith Hospital campus of Imperial College. The organising committee is listed below.
It is hoped that a student representative will attend regular meetings of the committee.

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Telephone No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Organiser:</td>
<td>Dr Patricia Cover</td>
<td>020 3311 7275</td>
</tr>
<tr>
<td>Course Director:</td>
<td>Professor Steve Gentleman</td>
<td>020 3311 7680</td>
</tr>
<tr>
<td>Deputy Course Director:</td>
<td>Dr Magdalena Sastre</td>
<td>020 7594 6673</td>
</tr>
<tr>
<td>Committee member</td>
<td>Dr Adam Hampshire</td>
<td>020 7594 7993</td>
</tr>
<tr>
<td>Committee member</td>
<td>Dr Liam Nester</td>
<td>020 7594 8860</td>
</tr>
</tbody>
</table>
2. Programme Structure

The course is based around three research projects, each of which will be conducted within a different research group, in order to expose the student to a variety of different laboratory environments and different practical techniques. In parallel with this practical work students are expected to write three mini-dissertations on a range of topics that cover the broad area of neuroscience. These topics will be assigned and assessed by members of staff with expertise in the specific area.

Introductory Module

This one-week program, held in the first week of term, will act as an introduction to the course. Students will be given the opportunity to acquire basic skills in information technology (IT), literature evaluation and presentation skills required for the course. In addition, students will be introduced to basic principles of experimental design. There will also be sessions covering the principles of statistical evaluation (planned to take place after the introductory week). An overview of the current research in the Division will set the scene for research projects that may be available. Housekeeping issues of the college will also be dealt with during this week.

Research Project

The short projects are intended to provide a training and experience in hypothesis-driven academic laboratory research. A project report must be submitted. Each of the three projects will be carried out in a different research group to ensure as broad an experience as possible. The time for each project is limited and therefore many projects may be part of a team driven piece of research rather than a stand-alone project. A week is suggested at the beginning of each project in order to allow time for reading and two weeks at the end of each project for writing up a report. Consequently, you will need to be well organised and to work hard. It is important that you discuss your work regularly with your supervisor - the failed experiments as well as the successful ones. You will find that, in addition to your supervisor, you may also receive help from others (postdoctoral scientists and PhD students). However, please remember that they have their own research to do as well. You will get the most out of your interactions with them if you learn to work as part of a team - this is one of the most enjoyable aspects of research.

Before starting laboratory work, you must discuss all the safety aspects of the techniques that you will be using and you must complete and sign the appropriate forms.

A full outline of requirements for the format of the reports is given in "Format of the Research Project" (Section 5). You must submit the one electronic copy and one hard copy of the report, usually by 4.00 PM, on the second Friday of the write-up period.
Mini-dissertations

To ensure that students have a good overview of the field of Neuroscience they will complete three mini-dissertations on different topics. A full outline of requirements for the format of the mini-dissertations is given below (Requirements for programme completion, section 3). These mini-dissertations are completed in parallel with the research projects. You must submit the mini-dissertations, usually by 4.00 PM, on the third Friday of the write-up period.

Reading

Students are encouraged to read widely, using textbooks and, importantly, journals (for reviews and original articles). The library stocks a wide range of books and journals. Tuition in the correct use of the library facilities is given by library staff (a formal session is arranged for week 1) and students are expected to be able to perform literature searches.

Two main textbooks, which cover the basics of Neuroscience, are recommended. There are a number of library copies of these textbooks.


Students should be aware that Neuroscience is a rapidly changing field; hence much of the most up-to-date information can only be obtained from journals. The journals Trends in Neurosciences, Current Opinion in Neurobiology and Annual Review of Neuroscience provide good review articles. References to original experimental articles can be found in these reviews and from literature searches.

Imperial Success Guide / Imperial Success Guide for Master’s Students:
http://www3.imperial.ac.uk/students/studyguide

Professional Development for Master’s students

In addition to the Transferable Skills training available in the program’s Introductory module and elsewhere e.g. presentation skills, team working, problem solving, transferable skills training is also available through the Graduate School. The Graduate school runs a series of MasterClasses at the South Kensington, Hammersmith and St Mary’s campuses. These are normally in the form of 90 minute lectures held over lunchtime. Topics include preparing and writing a literature review, stress management, academic writing, interviewing skills and developing your career through networking:

http://www3.imperial.ac.uk/graduateschool/currentstudents/professionalskillsmasters
## Timetable 2016/2017

<table>
<thead>
<tr>
<th>Week</th>
<th>Starting</th>
<th>Activity</th>
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<tbody>
<tr>
<td>1</td>
<td>3rd October 2016</td>
<td>Wellcome, and Introductory Module.</td>
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<tr>
<td>2</td>
<td>10th October</td>
<td>Identification of 1st project and reading Title for 1st mini-dissertation.</td>
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<tr>
<td>3</td>
<td>17th October</td>
<td>1st project</td>
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<tr>
<td>4</td>
<td>24th October</td>
<td>1st project</td>
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<tr>
<td>5</td>
<td>31st November</td>
<td>1st project</td>
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<tr>
<td>6</td>
<td>7th November</td>
<td>1st project</td>
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<tr>
<td>7</td>
<td>14th November</td>
<td>1st project</td>
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<tr>
<td>8</td>
<td>21st November</td>
<td>1st project</td>
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<tr>
<td>9</td>
<td>28th November</td>
<td>1st project</td>
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<tr>
<td>10</td>
<td>5th December</td>
<td>1st project</td>
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<tr>
<td>11</td>
<td>12th December</td>
<td>1st project</td>
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<tr>
<td>12</td>
<td>19th December</td>
<td>Christmas</td>
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<tr>
<td>13</td>
<td>26th December</td>
<td>Christmas</td>
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<tr>
<td>14</td>
<td>2nd January</td>
<td>1st project</td>
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<tr>
<td>15</td>
<td>9th January</td>
<td>1st project</td>
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<tr>
<td>16</td>
<td>16th January</td>
<td>Write up week of 1st project</td>
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<tr>
<td>17</td>
<td>23rd January</td>
<td>Write up week of 1st project. Submit 1st project (Friday 27th)</td>
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<tr>
<td>18</td>
<td>30th February</td>
<td>Write up week Submit 1st mini-dissertation (Friday 3rd)</td>
</tr>
<tr>
<td>19</td>
<td>6th February</td>
<td>Reading for 2nd project. Title for 2nd mini-dissertation</td>
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<tr>
<td>20</td>
<td>13th February</td>
<td>2nd project</td>
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<tr>
<td>21</td>
<td>20th February</td>
<td>2nd project</td>
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<tr>
<td>Date</td>
<td>Description</td>
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<tr>
<td>27th February</td>
<td>2nd project</td>
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<td>6th March</td>
<td>2nd project</td>
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<tr>
<td>13th March</td>
<td>2nd project</td>
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<td>20th March</td>
<td>2nd project</td>
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<tr>
<td>27th March</td>
<td>2nd project</td>
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<tr>
<td>3rd April</td>
<td>2nd project</td>
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<tr>
<td>10th April</td>
<td>Easter (part of week)</td>
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<td>17th April</td>
<td>Easter (part of week)</td>
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<td>24th April</td>
<td>2nd project</td>
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<td>1st May</td>
<td>2nd project</td>
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<td>8th May</td>
<td>2nd project</td>
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<tr>
<td>15th May</td>
<td>Write up week of 2nd project</td>
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<tr>
<td>22nd May</td>
<td>Write up week of 2nd project. Submit 2nd project (Friday 26th)</td>
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<tr>
<td>29th May</td>
<td>Write up week. Submit 2nd mini-dissertation (Friday 2nd)</td>
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<tr>
<td>5th June</td>
<td>Reading for 3rd project. Title for 3rd mini-dissertation</td>
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<tr>
<td>12th June</td>
<td>3rd project</td>
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<tr>
<td>19th June</td>
<td>3rd project</td>
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<td>26th June</td>
<td>3rd project</td>
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<tr>
<td>3rd July</td>
<td>3rd project</td>
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<tr>
<td>10th July</td>
<td>3rd project</td>
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<tr>
<td>17th July</td>
<td>3rd project</td>
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<td>24th July</td>
<td>3rd project</td>
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<tr>
<td>31st July</td>
<td>3rd project</td>
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<tr>
<td>45</td>
<td>7\textsuperscript{th} August</td>
<td>3\textsuperscript{rd} project</td>
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<tr>
<td>46</td>
<td>14\textsuperscript{th} August</td>
<td>3\textsuperscript{rd} project</td>
</tr>
<tr>
<td>47</td>
<td>21\textsuperscript{st} August</td>
<td>Write up week of 3\textsuperscript{rd} project</td>
</tr>
<tr>
<td>48</td>
<td>28\textsuperscript{th} August</td>
<td>Write up week of 3\textsuperscript{rd} project Submit 3\textsuperscript{rd} project (Friday 1\textsuperscript{st})</td>
</tr>
<tr>
<td>49</td>
<td>4\textsuperscript{th} September</td>
<td>Write up week Submit 3\textsuperscript{rd} mini-dissertation (Friday 8\textsuperscript{th})</td>
</tr>
<tr>
<td>50</td>
<td>11\textsuperscript{th} September</td>
<td>Viva preparation</td>
</tr>
<tr>
<td>51</td>
<td>18\textsuperscript{th} September</td>
<td>Viva preparation</td>
</tr>
<tr>
<td>52</td>
<td>25\textsuperscript{th} September</td>
<td>Viva by External Examiner (tbc)</td>
</tr>
</tbody>
</table>

**COLLEGE CLOSURE DATES**

**CHRISTMAS 2016/NEW YEAR 2017**

College closes at your usual finishing time on Friday 23 December 2016
College re-opens Tuesday 3 January 2017

**EASTER**

College closes at your usual finishing time on Tuesday 11 April 2017
College re-opens Wednesday 19 April 2017

**EARLY MAY BANK HOLIDAY**

Monday 1 May

**SPRING BANK HOLIDAY**

Monday 29 May

**SUMMER BANK HOLIDAY**

Monday 28 August
# INTRODUCTORY MODULE TIMETABLE

*Convenor: Dr Patricia Cover*

**Monday 3rd October 2016** (Wolfson SR V, Hammersmith Hospital campus)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.30</td>
<td>Introduction</td>
<td>Dr P Cover</td>
</tr>
<tr>
<td>10.30</td>
<td>Coffee</td>
<td></td>
</tr>
<tr>
<td>11.00</td>
<td>Neuroscience Research at Imperial (Head of Wolfson Labs)</td>
<td>Professor Reynolds</td>
</tr>
<tr>
<td>12.00</td>
<td>Health and Safety - practical and statutory Requirements.</td>
<td>Mr. S. Singh</td>
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<tr>
<td>16.15</td>
<td>Postgraduate Students Provost’s Welcome Event</td>
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<td></td>
<td><strong>Great Hall, Sherfield Building at South Kensington</strong> (overflow in the</td>
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<tr>
<td></td>
<td>Pippard and Read Lecture Theatres on Level 5, Sherfield Building)</td>
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</tbody>
</table>

**Tuesday 4th October 2016**

Freshers’ events at the South Kensington campus

**Wednesday 5th October 2016** (Charing Cross, Laboratory Block, Pathology seminar room)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.30-11.00</td>
<td>Experimental design and literature evaluation</td>
<td>Prof David Sharp</td>
</tr>
<tr>
<td>11.30-13.00</td>
<td>Introduction to Neuroanatomy</td>
<td>Prof S Gentleman</td>
</tr>
<tr>
<td>14.00-15.00</td>
<td>Neuroanatomy practical demonstration</td>
<td>Prof S Gentleman</td>
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<tr>
<td></td>
<td><strong>(Dissecting Room, Laboratory block)</strong></td>
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<tr>
<td>PM</td>
<td>Sports Trials at the South Kensington campus</td>
<td></td>
</tr>
</tbody>
</table>

**Thursday 6th October 2016** (Wolfson SR III)

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>09.30-10.30</td>
<td>Careers advice (Careers Consultant)</td>
<td>Ms Rachel Power</td>
</tr>
<tr>
<td>11.00-12.00</td>
<td>Introduction to library facilities</td>
<td>Mr Michael Gainsford</td>
</tr>
<tr>
<td></td>
<td><strong>(Library, HH Commonwealth Bld)</strong></td>
<td></td>
</tr>
<tr>
<td>14.00-16.00</td>
<td>Imaging and Tour of Imaging facilities</td>
<td>Maria Yanez-Lopez</td>
</tr>
</tbody>
</table>
Friday 7th October 2017  (Wolfson SR I)

10.00-11.00  Project talk  Dr P Cover
11.00-13.00  IT workshop  Dr Mike Barrett
              (Computer Lab, CWB, floor 3, 3S2)
13.30-14.00  Professional skills programme  Graduate School Rep
14.00-17.00  Presentation Skills  Dr P Cover

Saturday 8th October - Postgraduate Mingle and welcome party from 7pm  at Imperial College Union, Beit Quad, South Ken.

Statistics review session

Friday 21st October  14.00 -16.00  (CWB Bld SBS Seminar Room 11A)

Literature searching and referencing

Wednesday 26th October 2015  10.00-12.00  Literature Searching and Referencing
                              (Library, Hammersmith Commonwealth Bld)

Module Organiser:  Dr P Cover
                  MRes Experimental Neuroscience Course Organiser
                  Division of Brain Sciences, Imperial College London
                  Room 10L16, Lab Block Charing Cross Campus
                  St Dunstan’s Road, London W6 8RP
                  Tel: 020 3311 7275  p.cover@imperial.ac.uk
3. Requirements for Programme Completion

It is most important for you to appreciate the basis on which your MRes will be awarded. These notes explain this and the Regulations that govern the degree.

To obtain an MRes in Experimental Neuroscience:

(i) **You must attend the course**: This sounds obvious, but absences do occur for personal and other reasons. You are obliged to inform us if difficulties arise that necessitate your absence for more than three days. The course is full-time and there is no substitute for attendance. Link to the Policy on employment during studies: https://workspace.imperial.ac.uk/registry/Public/Procedures%20and%20Regulations/Policies%20and%20Procedures/Student%20Employment%20During%20Studies.pdf

You must submit the three (3) mini-dissertations: Titles for each mini-dissertation will be given at the times specified in the timetable (Section 2). The topics may cover the range of neuroscience and the mini-dissertations are expected to include reference to and critical analysis of the primary literature relevant to the topic. The mini-dissertations should be 3,000 to 5,000 words long not counting references. They will be marked by two independent assessors. **The mini-dissertation must be submitted usually by 4.00 PM, on the third Friday of the write-up period, indicated on the timetable.**

(ii) **You must submit satisfactory project reports and pass the oral examinations**: Here, satisfactory does not refer to size, but to quality. You will be expected to have demonstrated a competent grasp of your subject and to submit presentable reports. Attention must be given to presentation - students may not be awarded their MRes because of careless presentation, e.g. poor spelling, inadequate use of grammar, poorly drawn figures, captions or tables, etc. Your ability to behave as a professional is being assessed; unprofessional work will not be accepted as suitable for the MRes. **The research report must be submitted usually by 4.00 PM, on the second Friday of the write-up period, indicated on the timetable.**

All students will be called for an oral examination on each research project, usually in the second write-up week. A final oral examination on the mini-dissertations and the research projects will be conducted by the external examiner(s) and a committee of internal examiners. The external examiners are Professor Colin Smith from the University of Edinburgh and Dr Fred Dick from Birkbeck College, University of London.

**Weighting of each element of the Examination**

The course consists of three rotations. Course assessment will consist of 3 research projects and 3 mini-dissertations. In each rotation one research project and one mini-dissertation is completed, these two components make up one course Element (each project is 25% of the
MRes and each mini-dissertation is 8.3% of the MRes. Candidates must pass all course Elements. A mark of less than 40% in any component will result in the failure of this assessment and the course Element.

Projects will be assessed by a written project report, supervisor’s assessment of laboratory skills and an oral presentation, after the completion of each of the three projects (February, May and September). The written report (4,000-6,000 words) will be independently assessed by two assessors. The oral presentation (15 minutes followed by time for discussion) will be attended by the management team and will also be open to all staff and students in the Division. External examiners would not be required to attend these presentations but will receive copies of the projects and the internal assessments. The marks for each project will be equally weighted. Within each project the three parts to be assessed will be weighted as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weightage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report</td>
<td>60%</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>30%</td>
</tr>
<tr>
<td>Supervisor’s assessment</td>
<td>10%</td>
</tr>
</tbody>
</table>

Mini dissertations will be assessed by two assessors.

Three grades of Masters award are possible: Pass, Merit and Distinction.

**Pass**, 50% or higher in all elements of the course;

**Merit**, an average of 60% or higher with 60% or higher in two of the elements and no less 50% in the third element;

**Distinction**, an average of 70% or higher with 70% or higher in two of the elements and no less 60% in the third element.

**Feedback**
At the end of each rotation, after the mini-dissertation, project reports and oral examination has been assessed, students will receive written feedback on their performance.

**Compulsory Online Plagiarism Awareness Course for Master’s students**
All Master’s students are required to undertake an online course in plagiarism awareness. Please complete the course during the first 4 weeks. More information about the course and how students can enrol is available at: [http://www.imperial.ac.uk/admin-services/library/learning-support/plagiarism-awareness/](http://www.imperial.ac.uk/admin-services/library/learning-support/plagiarism-awareness/)

**Link to Academic and Examination regulations:**
[http://www3.imperial.ac.uk/registry/proceduresandregulations/regulations](http://www3.imperial.ac.uk/registry/proceduresandregulations/regulations)

**Link to religious obligations in assessments:**
4. Ensuring your Programme is a Success

This course involves an intensive programme of advanced training and the staff are concerned to ensure that you obtain the maximum benefit from your time at Imperial College. Three factors will influence your response to the course:

(i) The extent to which you prepare for the course by reading

(ii) Your willingness to communicate with us and with your fellow students

(iii) Your management of time.

Contact with staff
Students are encouraged to take full advantage of all formal and informal contacts with the various members of staff. The main opportunities are:

(i) During the research projects, detailed discussions of dissertations with the individual staff member appointed as your supervisor.

(ii) Individual discussions on particular questions with members of staff. Times for these are best arranged in advance with individual members of staff (who are busy and will not always be available). However, you are expected to do your own reading to try to answer questions for yourself before contacting staff.

(iii) Meetings with the Course Organiser or Course Director to discuss general progress in the course or any problems of any nature.

In addition, the other members of the Management Committee (Section 1) will be available for any problems or issues about which the student feels it is inappropriate to approach the Course Director or their Project Supervisor.

Whom to contact with an enquiry

If you have a question about the course, you should contact the Course Organiser or one of the other members of the Management Committee.

If you have a question about administration/finance, contact the Postgraduate Registry on the South Kensington Campus.

Pastoral and Academic Support, Supervisors, College Tutors, Personal Tutors

Student welfare is of particular concern to members of academic staff in departments and divisions, and to warden teams in Halls. As a student on the MRes Experimental Neuroscience your first point of contact to raise queries or issues should always be your course team (see section 1) or Personal Tutor.
You will find that the research projects and mini-dissertations are intensive. Students can become worried when they fall behind with their work and such problems, when they arise, should be discussed with the Course Organiser or Course Director or other members of staff to avoid anxiety. Problems of one sort or another often arise and you will find the members of staff are experienced in dealing with them. Each student will be assigned a Personal Tutor available for advice and guidance. We suggest you arrange an introductory meeting with your tutor at the beginning of the course.

However, all students also have confidential access - independent of department or division - to the College Tutors regarding academic issues, and for all aspects of pastoral care and discipline within the College.

http://www3.imperial.ac.uk/students/welfareandadvice

Requests for mitigating circumstances must be formally made in writing accompanied by a medical certificate.

If at any stage you have problems that interfere with your course of study PLEASE inform the Course Organiser. It is absolutely essential to keep in contact with us.

Expectations

Code of Student Discipline
This Code of Student Discipline provides for the hearing of complaints concerning breaches of discipline by students, and for rights of appeal where appropriate, and sets down the penalties that may be imposed, including termination of membership of the College.

http://www3.imperial.ac.uk/secretariat/collegegovernance/provisions/ordinances/e2

Blackboard (VLE)
- Link to Blackboard https://bb.imperial.ac.uk/
- Find out more - http://www3.imperial.ac.uk/ict/services/teachingandresearchservices/elearning/vle

Evaluation and Quality Assurance

At the end of each rotation students will be asked to fill out a feedback form for evaluation and quality assurance purposes.
STATEMENT ON PLAGIARISM

You are reminded that all work submitted as part of the requirements for any examination (including coursework) of Imperial College and the University of London must be expressed in your own words and incorporate your own ideas and judgements.

Plagiarism, that is, the presentation of another person’s thoughts or words as though they were your own, must be avoided, with particular care in coursework, essays and reports written in your own time. Note that you are encouraged to read and criticise the work of others as much as possible. You are expected to incorporate this in your thinking and in your coursework and assessments. But you must acknowledge and label your sources.

Direct quotations from the published or unpublished work of others, from the internet, or from any other source must always be clearly identified as such. A full reference to their source must be provided in the proper form and quotation marks used. Remember that a series of short quotations from several different sources, if not clearly identified as such, constitutes plagiarism just as much as a single unacknowledged long quotation from a single source. Equally, if you summarise another person’s ideas or judgements, figures, diagrams or software, you must refer to that person in your text, and include the work referred to in your bibliography. Departments are able to give advice about the appropriate use and correct acknowledgement of other sources in your own work.

The direct and unacknowledged repetition of your own work which has already been submitted for assessment can constitute self-plagiarism. Where group work is submitted, this should be presented in a way approved by your department. You should therefore consult your tutor or course director if you are in any doubt about what is permissible. You should be aware that you have a collective responsibility for the integrity of group work submitted for assessment.

The use of the work of another student, past or present, constitutes plagiarism. Where work is used without the consent of that student, this will normally be regarded as a major offence of plagiarism.

Failure to observe these rules may result in an allegation of cheating. Cases of suspected plagiarism will be dealt with under the College’s Examination Offences Policy and may result in a penalty being taken against any student found guilty of plagiarism.
5. Format of the Research Projects

Allocation of Projects
Allocation of the first project and supervisor is normally arranged in the first two weeks of the course taking into account wherever possible the academic interests of individual students. Subsequent projects should be organised well before the start date, allowing plenty of time to investigate different options.

Research projects are designed to form part of major on-going research themes in the host laboratory, to give students experience of top quality competitive research. Projects are available in the laboratories of the Division of Brain Sciences and also within other Divisions whose research is of a neuroscience nature. Research is hard work, obsessive, has ‘highs’ and ‘lows’ but if you are prepared to put in the commitment it can be very rewarding - so, work hard and enjoy yourself!

Safety
The laboratories are covered by strict safety regulations. You will be given a copy of these before you start to work in the laboratory. Make sure that you have read these carefully before you start experimental work.

If there is anything that you do not understand, **PLEASE ASK**.

Finance
Research reagents are very expensive so please be very careful and do not waste them. All your reagents will be ordered via your supervisor or designated person, with whom you can discuss your requirements fully. If you find that a reagent has been finished or is about to run out, you must inform them. Please remember that new reagents may take several days to arrive.

Research requires commitment and organisation.
There is no official timetable so you will need to organise your time efficiently. Experiments can be variable in length, and may contain quite long gaps (e.g. antibody incubation periods); do not waste these “gaps”, use them to read scientific literature, collate previous data, plan future experiments, start to write your thesis.

Research can be unpredictable.
The protocol for an experiment should be fully discussed with your supervisor, or experienced member of the laboratory recommended by your supervisor, before you start. This avoids unnecessary errors which can waste a lot of time and reagents. However, an experiment is designed to investigate the unknown, and therefore cannot always be guaranteed to be successful. It is not the equivalent of doing a class practical, where the teaching staff have tried everything thoroughly beforehand. You must therefore be prepared for some disappointments as well as successes.
Research requires a mixture of intellectual and practical input. It cannot all be done in the library, nor can it all be done at the laboratory bench. You need a balance of both activities. The more you read the more you will understand the background and significance of your research. This will help you to do better, more creative experiments.

Research Literature.
The basic source of research information is the scientific journal. However, it is often best to read a good review article of your chosen area first. At the start of your project your supervisor should give you a selection of review and original articles to read. You should read these and also use them as a source of further reading.

In addition, you should make full use of the excellent facilities in the Library. Check new issues for interesting articles. Learn how to use the Medline to do a computer literature search in your subject area.

Experiments should be planned in advance.
Before you do an experiment you should think it out carefully in advance, planning all the appropriate controls as well as your experimental system. Discuss experimental design with your supervisor before you start the experiment. This can avoid mistakes and so save valuable time and reagents. Where possible, use the same batch of reagents (e.g. antibodies) for all your experiments, to ensure reproducible results.

Who to ask for advice and help?
There are several people in the laboratory you can go to for academic advice or to ask technical questions. However, if you do not understand or are confused by the answer (2 different people may give you 2 slightly different solutions to the problem), you should discuss the matter with your supervisor.

How is the practical work organised?
Now that you are working on your own research project, you are responsible for all aspects of your work. This means that you should learn to make up your own reagents (e.g. buffers) and should clean up your area of the laboratory when you have finished. This is crucial for the successful, integrated functioning of a research laboratory.

Departmental activities
The Department where you do your project has many different types of collective activities, which you should attend e.g. journal club, laboratory meetings and Departmental seminars. These are an important part of research life and it is important to attend these, even if you find some a little hard to understand - this is quite normal at the start of a research career, and the solution is to discuss the parts that you found difficult with colleagues in the laboratory/department.
Writing Your Reports
Plagiarism advice for postgraduate taught course (Master's) students:
http://www3.imperial.ac.uk/library/subjectsandsupport/plagiarism/pgtaught

Structure
Each report should be 4,000-6,000 words long (approximately 20 - 40 pages). It should be divided into the following sections:

Title Page
Acknowledgements
Table of Contents  -
(it may be useful to have a table of Abbreviations also)
Abstract (approximately 1/2 to 1 page)
Introduction
Materials and Methods
Results
Discussion
References

The project report should be typed, with lines double spaced and with suitable margins to permit binding. Each major section (Introduction, Material and Methods etc.) should start at the top of a new page. Paragraphs should be made clearly visible either by indenting the first line (by 5 spaces) or by leaving an additional blank line between paragraphs.

The project report should be written in your own words (see notes on plagiarism - page 20).

Title Page
The title page should include the project title, the year, degree name, your name and the name of your supervisors.

Abbreviations
You should list on a separate page all the abbreviations that you have used in your thesis. Many of these are standard, e.g.,

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBS</td>
<td>phosphate buffered saline</td>
</tr>
<tr>
<td>Ig</td>
<td>immunoglobulin</td>
</tr>
<tr>
<td>FITC</td>
<td>fluorescein isothiocyanate</td>
</tr>
</tbody>
</table>

Try not to invent too many abbreviations of your own, as it can make it hard work for your examiner to read. In addition, the first time that you use an abbreviation in the main text, you must define it, e.g.,

Antibodies were diluted in phosphate buffered saline (PBS)

The next time you can simply use the abbreviation, e.g.,

Sections were rinsed three times in PBS
You must be consistent. Once you have defined an abbreviation, always use the same abbreviation and do not revert to the original words.

Abstract
This should give a brief summary of the purpose of your study, the techniques that you chose to use, the major findings and a discussion of the technical aspects and academic significance of these results.

Introduction
This should provide the background literature to the area in which you did your research, together with a discussion of the specific work, published and unpublished, that led to your own research project. A final paragraph should introduce the specific topic of your research work.

Materials and Methods
This section should describe the reagents, cells etc. that you used and the methods that you carried out. This should give sufficient detail such that someone could read the protocol and then repeat the experiment themselves.

Commercial reagents should have their source (i.e. the company and country) in brackets after they are mentioned for the first time, but not on subsequent occasions, e.g.

Monoclonal antibody LP34 (Dakopatts, Denmark) was used to detect epithelium. Epithelial cells in the thymic medulla labelled more strongly with LP34 than those in the cortex.

However, the country should only be given the first time a company is mentioned. On subsequent occasions the name of the company is sufficient, e.g.

Monoclonal antibody T2 (Dakopatts)

Results
Obviously the exact way in which you present your data will depend upon the nature of your data. However, the following general rules apply to all studies. Your data should be concisely described in the text. Details should be presented as Figures (e.g. graphs, photomicrographs) and Tables. Figures and Tables should each be numbered (e.g. Fig. 1, Fig. 2 etc., Table 1, Table 2 etc.) and should be referred to in the appropriate position in the text, e.g.

Monoclonal antibody MR6 gave weak labelling of the epidermis in normal skin (Fig. 1) but strong staining of most Basal Cell Carcinomas (Fig. 2; Table 1).

It is also a good idea to present your data in 2 ways - as basic raw data in a Table or photographs, and collated/analysed, e.g. graphs, histograms etc. In this way your examiner can judge both the data and your analysis of it.
For numerical data, you should apply statistical analysis where appropriate. For photographic data, photography can be very expensive so ask staff for advice on the most economical method.

Discussion
There are two aspects to a discussion, technical and academic.

For the technical part you should discuss the advantages and disadvantages of the techniques that you used. You should also discuss the problems (there are always some!) that you encountered, why you think these arose and how you tried to solve them.

For the academic part you should summarise the major findings of your research data, and then discuss your interpretation of these data and what you feel is their significance in the context of work that has been published in the literature.

Finally, you should discuss future work that could be done to answer the unanswered questions that remain at the end of your work, and the direction in which you think this research might lead.

References
When you write your project report you will be using information that already exists, due to the work of other scientists. When you make a major statement that is based on someone’s work you should quote the relevant publication; this may be an original article, a review or possibly a book. In the text, a reference should be quoted in brackets at the end of the relevant sentence, by giving author(s) and date; where there are 3 or more authors, only the first author followed by “et al.” is given, e.g.:

1 author paper:
B cells develop within the mammalian bone marrow (Smith, 1992).

2 author paper:
T cells develop within the thymus (Smith and Jones, 1992).

3 author paper:
T and B cells develop from a common haemopoietic stem cell (Smith et al., 1992).

[NB et al. is the abbreviated form of et alia meaning, in Latin, ‘and others’. Et al. (and all other Latin phrases such as in vivo, in vitro) should be written in italics.]

Where 2 or more papers are quoted together at the end of a sentence they should be in chronological order, separated by a semi colon, e.g.:


Where the same author has published 2 papers in the same year they should be called a. and b., according to the alphabetical order of the second author, e.g.:
Jones, et al., 1988a (for Jones, Bishop and Smith, 1988)
Jones, et al., 1988b (for Jones, Dodd and Pilkington, 1988)

All the references quoted should then be collected together at the end of the report arranged in alphabetical order. Here, all the details (including all authors, full title, volume number and first and last page numbers) should be given as follows:


Each journal has a standard abbreviation, e.g:

- J. Neurosci. - Journal of Neuroscience
- Nature - Nature
- Proc. Natl. Acad. Sci. - Proceedings of the National Academy of Science
- Science - Science
- TINS - Trends in Neuroscience
- Cell - Cell
- Neuron - Neuron
- EMBO J. - EMBO Journal
- J. Exp. Med. - Journal of Experimental Medicine
- J. Physiol. - Journal of Physiology

When you want to refer to a chapter in a book:


When you want to refer to a whole book:


Do not quote a reference that you have not read; reading the abstract is not sufficient. The campus libraries at IC contain a very large number of journals, many of which can be accessed electronically via the College network. However, if there is an important article in a journal not taken by the library, talk to your supervisor about it as it may be possible to obtain an inter-library loan or photocopy. Do not put a reference in the Reference section of your thesis unless you have quoted it in the text.

Typing your Research report
There are computers available for general use in the library, located in the Commonwealth building. In addition, most laboratories have several computers and you may be able to arrange to use them. There are also computers available in the computer room 3S2, 3rd floor of the Commonwealth Building.
Binding
You can arrange for this to be done, using a heat sealed binder. Alternatively, you can bind your report yourself using the spiral punch binder in the Library. Please note that the cost of preparation of reports is carried by the student - not the department or laboratory.

You must submit the **one electronic copy** and **one hard copy** of the report, usually by 4.00 PM, on the **second Friday of the write-up period**.

Presentation and Oral examination
Your oral examination for each project will be conducted by the management Committee and other members of the Division are invited to attend. The examination will consist of a 15 min (max) oral presentation of your project, followed by questions. You will be examined on the technical and academic aspects of your research project and report. You are advised to arrange a time with your supervisor for a ‘mock’ viva prior to the formal presentation.

Each student will also have a final 30 minute oral examination with the external examiner, at the end of the year. You will not be expected to give a presentation but rather the external examiner will ask questions related to your research projects and mini-dissertations.

**EXAMPLES OF PAST PROJECTS**

<table>
<thead>
<tr>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of Organotypic cultures to study the effect of astrocyte ablation on acute and chronic inflammation.</td>
</tr>
<tr>
<td>Do factors released by activated microglia affect expression of iron transport proteins in dopaminergic neurons?</td>
</tr>
<tr>
<td>Investigating pathogenic mechanisms in familial motor neurone disease/ amyotrophic lateral sclerosis.</td>
</tr>
<tr>
<td>Development of a lentiviral vector based in vivo model of Huntington’s Disease for determining neuroprotective ability of VEGF.</td>
</tr>
<tr>
<td>Chemokines and chemokine receptors in Multiple Sclerosis.</td>
</tr>
<tr>
<td>Neural mechanisms of human visual memory and selective attention: Psychophysical and tDCS studies.</td>
</tr>
<tr>
<td>Thalamic connections: defining functional connectivity of thalamo-cortical loops.</td>
</tr>
<tr>
<td>Pilot study investigating functional MRI activation in response to language tasks in the anterior and ventral temporal lobes.</td>
</tr>
<tr>
<td>Motor cortical modulation of anticipatory postural adjustments in trunk muscles.</td>
</tr>
<tr>
<td>Clinico-pathological investigation of the relationship between tremor and cerebellar and brainstem pathology in Parkinson’s disease.</td>
</tr>
<tr>
<td>Investigating the immunomodulatory mechanisms underlying autologous haematopoietic stem cell transplantation in the treatment of Multiple Sclerosis.</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Anatomy of ocular deviation: evidence from 421 acute strokes.</td>
</tr>
<tr>
<td>The effect of visual-vestibular mismatch on sensory integration of position and time.</td>
</tr>
<tr>
<td>Increasing accessibility of self-rehabilitation aid for patients with motor stroke.</td>
</tr>
<tr>
<td>Influence of neuroinflammation on synaptic function in neurodegenerative diseases: An $^{11}$C-(R)-PK11195 and $^{18}$F-FDG PET study</td>
</tr>
<tr>
<td>Measuring free iron in the brain following traumatic brain injury using susceptibility weighted imaging.</td>
</tr>
<tr>
<td>Activation of I$_2$-Imidazoline Receptors in Amyloid Pathology.</td>
</tr>
<tr>
<td>AT2R Inhibition as a Novel Therapeutic Strategy in Brain Tumours.</td>
</tr>
<tr>
<td>Is Iron Accumulation in the Parkinsonian Brain triggered by the innate inflammatory response in the Parkinson’s Disease Brain?</td>
</tr>
<tr>
<td>Computational modelling of pedunculopontine nucleus deep brain stimulation.</td>
</tr>
<tr>
<td>Involvement of the P2X7 purinoreceptor in human chronic pain disorders.</td>
</tr>
<tr>
<td>Motor-related brain activity in Parkinson’s disease patients: an fMRI study.</td>
</tr>
<tr>
<td>An investigation of impaired attentional control on motor performance in acute stroke patients.</td>
</tr>
<tr>
<td>Identifying optimal target regions for deep brain stimulation of the pedunculopontine nucleus in Parkinson’s disease.</td>
</tr>
<tr>
<td>NCoR increases BACE promoter activity and may increase Aβ secretion.</td>
</tr>
<tr>
<td>The role of orexin receptors in promoting pathological alcohol intake.</td>
</tr>
<tr>
<td>Computational modelling of pedunculopontine nucleus deep brain stimulation</td>
</tr>
<tr>
<td>Cognitive and Behavioural Variables Relate to Brain Volume Abnormalities in Alzheimer’s dementia: a Voxel Based Morphometric Study using MRI.</td>
</tr>
<tr>
<td>Increasing accessibility of self-rehabilitation aid for patients with motor stroke.</td>
</tr>
</tbody>
</table>
6. Safety instructions for MRes students

The following pages contain instructions for the maintenance of safety and security in the teaching laboratories. The Campus Safety Officer/First Aid Officer is Mr. Sukwinder Singh (tel. 07714 051 213), Hammersmith Hospital Campus. Please read the following carefully, your safety and that of others may depend on it. The majority of these instructions concern “wet labs”.

It is recommended that students keep these instructions with them during all practical sessions.

General safety measures

All students should be seen by Occupational Health and should take advantage of their free immunisation service. It is your responsibility to ensure that you are adequately protected against possible sources of infection. http://www3.imperial.ac.uk/safety

Depending on your research projects, different sections below will be most relevant to different students.

Protective clothing

You will be issued with lab coats and you must wear one at all times in the laboratories especially if you are handling hazardous substances. Remove your lab coat before leaving any of these areas and do not wear it in offices, the tea-room, or any of the hospital dining areas.

Information on the issue of clean coats and return of soiled coats will be provided by laboratory staff. Do not wear soiled coats. When not in use, lab coats should be stored on the hooks provided in the main laboratory, not in offices or lockers. Do not hang any personal overcoats or other clothing on these hooks; keep them in your locker.

Gloves must be worn whenever handling a potentially hazardous chemical or radioactive isotopes. Wear gloves also for handling tissue (see below).

Hygiene

Please observe all the fundamental rules of laboratory hygiene i.e. do not eat or drink in any laboratory, wash your hands before leaving the laboratory, etc.

Accidents

Ensure that you know what to do in event of an accident. If there is a spillage of hazardous chemicals or radioactive isotope, ensure your own safety and that of others. If in doubt, evacuate the area immediately and seek help from a senior member of the department. Report the accident to the safety officer, your group leader, or another responsible person as soon as possible. For your own protection, if you are injured (even a minor injury) or splash hazardous substances into your eyes you should fill in an accident form, and visit Occupational Health or Accident and Emergency if necessary. Your attention is drawn to notices about sharps injuries.
The Campus Safety Officers, Mr Singh & Ms Heather Combe, can be reached on 020 3313 2218 (Mobiles: 07714051213 or 07714051212 respectively).

If you are working outside normal hours, you are at greater risk. Do not work alone in the laboratory. You must be sure that you know what to do if there is an accident, because help may not be available. If working in the office alone outside normal hours lock the door, inform security that you will be working out of hours, and let them know when you leave. If an accident occurs, summon help if anyone is available. If you are injured, go to Accident and Emergency. Do not work until you and your supervisor are confident that you fully understand the techniques that you are doing.

Flammable liquids
Many of the reagents used in the laboratory, such as ethanol and acetone, are flammable. Flammable liquids should be stored in metal cabinets and never be placed on shelves, especially above head height. Ethyl ether is HIGHLY inflammable and must be used only in the fume-cupboard; NEVER light a Bunsen burner when it is in use.

Chemicals
Many of the chemicals in routine use are known to be dangerous.

There are different types of dangerous chemicals

(i) Carcinogens or suspected carcinogens (e.g. acrylamide)
(ii) Harmful vapour (e.g. glutaraldehyde, xylene, mercury formaldehyde)
(iii) Toxic (e.g. mercuric oxide, PMSF, acrylamide, silver nitrate, phenol)
(iv) Radioactive (see separate protocol)
(v) Caustic (e.g. NaOH, HCl, H2O2)
(vi) Volatile/inflammable liquids (e.g. diethyl ether, acetone)

When using chemicals like these always be extremely careful. Wear lab coat, gloves and other protective clothing if appropriate. Use a fume cupboard if necessary. All the chemicals used in the laboratory must be stored and handled under appropriate conditions. Ensure that you understand what these are.

After using chemicals always remember to wash your hands.

Volatile substances with harmful vapours and ether must always be used in a fume cupboard.

Always remember to clear away any debris from your work, putting waste in the correct disposal system (see general waste policy). Do not leave spilled chemicals around scale pans or balances. Clean in an appropriate manner. Empty chemical jars should be washed thoroughly before being disposed of in the glass buckets. Return all chemical containers to the appropriate cupboard, freezer, etc. Do not store hazardous chemicals on shelves above head height and ensure that storage areas are not overloaded.
For diaminobenzidine (DAB), handle the powder only in a fume cupboard. When in solution, DAB may be used on a bench but gloves must be worn. DAB waste must be collected for disposal by specialist chemical contractors.

Any reagents that you prepare/obtain should be clearly labelled with reagent name, date and your name. Unlabelled reagents will be disposed of. If solvents, solutions or chemicals are placed into a fresh container or a bottle previously used for something else, ensure that the container is clearly labelled. If the container already has a label, stating the original contents, this must be removed completely or covered entirely by the new label. It is dangerous to store chemicals in unlabelled or incorrectly labelled containers.

All glassware left for washing should be rinsed thoroughly.

Liquid nitrogen
Liquid nitrogen can cause severe burns because of its low temperature. Always wear protective cryo-gloves (with elasticated cuffs) and full face visor. Avoid splashes. If the low oxygen alarm activates, make safe your work and leave the room.

Instruments
Disposable scalpel blades, razor blades and syringe needles should never be left lying around; always dispose of them in the sharps bins provided, even if they are clean. If you find a bin that is nearly full, seal it and replace with a new one. Full sharps bins should be tagged and placed beside the clinical waste bins.

Broken glass should be put in the sharps bin only, not the waste-paper bins. Cryostat knives are extremely sharp and should be handled with care. Never carry a knife around without placing it in a protective box. Take care when cleaning or wrapping knives and keep your fingers away from the edge.

UV Light
When using UV light shield your eyes with appropriate goggles/safety shield. If you need to keep the light on for long periods prevent excessive exposure of the skin by wearing appropriate clothing and a full face mask.

Handling human tissue
(i) All human material must only be brought into the laboratory in a closed, air-tight container. The container must only be opened in the laboratory. Whenever possible, work inside the flow cabinet.

(ii) Prepare all equipment for dissection before opening the container. This equipment should include:
- a coat/gown worn only for dissection of human tissue;
- gloves (disposable);
- dissection instruments - (used only for human tissue);
- dissection board or dish - plastic (do not use cork which absorbs blood, etc.);
(iii) If you touch the tissue with your gloved hand do not touch anything else which will not be subsequently sterilised or disposed of, e.g. lab book, pen, stapler, liquid nitrogen container.

(iv) When you have finished dissecting, all tissue and contaminated articles must be put into an autoclave bag and disposed of as described below (“disposal of tissue”).

(v) Clean the board and working area thoroughly using 1% Virkon, diluted as directed on the container (Beware - caustic use gloves) followed by a rinse in cold water. Soak the instruments in diluted Virkon for at least 10 minutes (no more than 30 minutes) and rinse thoroughly. Dry the instruments in a warm oven, oil scissors etc. and replace.

(vi) Put the dirty coat/gown into the laundry basket if contaminated.

Never take human material into the “clean” areas of the department (i.e. tea-room, computer room and offices).

Remember that tissue frozen unfixed is potentially hazardous and handle it accordingly.

If you cut yourself during dissection, seek first aid advice immediately from a responsible person in the department. Go to Occupational Health to report the incident (because of the risk of HIV infection) and visit the Accident and Emergency Department for treatment, if necessary.

Disposal of tissue

Please note carefully the following instructions:
Blood samples and other biological specimens must be disposed of in sharps containers, tagged with a blue tag and placed beside the clinical eurocart in the bin room.

GM waste
All solid GM waste must be autoclaved and all liquid waste treated with 1% Virkon for 30 minutes before disposal. Inform and seek advice from supervisor or member of technical staff.

NOTE: Waste tissue should not be stored in the laboratories under any circumstances.

SAFE DISPOSAL OF POTENTIALLY HAZARDOUS WASTE TISSUE IS IN YOUR OWN INTEREST

Fire instructions
Attached are instructions to be followed in the event of a fire. It is compulsory that you read and understand everything.
General fire safety measures

Walk around the department and familiarise yourself with the positions of the emergency exits (at either end of the corridor), fire extinguishers, break glass alarms. Everyone should know where these are.

There have been 3 major fires on site in the last 4 years. Arson is on the increase in London and we are all at risk.

The main causes of fires are:
- Electrical
- Smoking
- Malicious i.e. arson

To help prevent these:
(i) Take care with electrical equipment. Only allow competent people to service electrical devices. Turn off equipment when not in use. If a piece of equipment catches fire, turn it off to remove the current.

(ii) Do not leave Bunsen burners on and unattended.

(iii) Do not smoke anywhere in the building including the stairways or near fire exits. The University operates a “No Smoking” policy throughout its premises.

(iv) Look out for intruders and report anyone suspicious to Security.

(v) Keep rubbish to a minimum. Don’t accumulate large piles of cardboard boxes next to the lifts or in the corridor; squash them or tear them up and place in bins whenever possible. If a large amount of bulky waste accumulates, phone for a porter to remove it, or take it down to the rubbish collection points yourself.

Fire alarm and evacuation procedure

(i) The building has a two-stage alarm system:
- Intermittent signal – be prepared to leave the building, close windows and doors.
- The evacuation signal - continuous bells, long duration.

(ii) The evacuation signal means that you must leave the building immediately, via your nearest Fire Exit (using the stairs).

- DO, if possible, make your equipment safe, e.g. by turning off the power and Bunsen burners.
- DO make safe any experiment you are doing.
- DO close the door of your room as you leave.
- DO follow all instructions given by your Floor Fire Officer.
- DO NOT STOP FOR PERSONAL BELONGINGS
- DO NOT RUN
- DO NOT USE LIFTS
- DO NOT RE-ENTER THE BUILDING UNTIL YOU ARE TOLD IT IS SAFE TO DO SO (by IC safety officer, security or fire fighters)
- GO TO YOUR ASSEMBLY POINT BY THE SAFEST ROUTE (the Burlington Danes car park turning point - Check local arrangements)

Raising the Alarm

(i) During Normal Working Hours

If you discover or accidentally start a fire, carry out the following:

a) Leave the room/area immediately evacuating other persons as necessary, close the door behind you to contain the fire.

b) Raise the alarm by pressing the plastic button at your nearest alarm point. The alert signal will immediately sound.

c) Dial 46666, or direct others to do so, and state clearly:
   - The details of the emergency
   - Your exact location
   - Your name
   - Your extension
   - Make sure they have the correct message before you hang up.

d) Inform the departmental fire officer, if easily available, but do not waste time looking for them.

e) Tell others to leave the building. If necessary, shout “Fire!”

DO NOT PUT YOURSELF IN DANGER
NEVER TRY TO FIGHT A FIRE ALONE OR BEFORE RAISING THE ALARM

(ii) Outside Normal Working Hours

Procedure as above. Once the break glass alarm point is activated the evacuation signal will sound therefore evacuate immediately.
Security

Wear your security card at all times. Do not allow anyone else access with your security card.

When you work late, or at weekends, Check before you leave that

- All apparatus is turned off or safe
- All windows are shut
- All internal doors are shut (this considerably reduces the spread of fire).
- All lights are switched off
- All the doors to the corridor are locked

Anyone planning to work late (after 7pm or weekend) need to comply with the Lone Working Policy and to complete a Lone Working Authorisation form and a Risk assessment (further details can be obtained from the Campus Safety Managers).

Important telephone numbers to note:-

Emergency 46666 (internal, Hammersmith campus) 3333 (internal, Charing Cross campus)

Police 999 (External)

Operator 0

Security 46666 (internal, Hammersmith campus)

Security Mobile: 07739512101

If you are working on another campus add the security/ emergency telephone number here:

Health and safety information (OH requirements, vaccinations, use of equipment, training etc.):

http://www3.imperial.ac.uk/facilitiesmanagement/healthandsafety
7. Facilities

Computing facilities
The library has a number of computers, which are for general use. They are all linked to the network and are therefore useful for the E-mail system. Each machine can be used for Medline and other on-line data base searches. Microsoft Office is also loaded onto each of these machines.

There is also a computer room for postgraduate students, located on the third floor of the Commonwealth Building (CWB 3S2).

The computer centre provides all the usual services of an academic campus network. There are central computers with a variety of scientific, statistical and general software packages. In addition there are comprehensive information services, including an IC phone and e-mail directory.

To take advantage of these facilities students must be registered with the computer centre. Computer accounts are free to IC staff and students. There is no charge for disk space, connect time or CPU usage. Also there is no charge for using the computers in the general User Areas.

YOUR ATTENTION IS DRAWN TO THE COLLEGE POLICY CONCERNING THE USE OF COMPUTER SOFTWARE. THE LICENCE ARRANGEMENTS FOR SOFTWARE ARE STRICT AND, IN GENERAL, IT IS FORBIDDEN TO COPY COMMERCIAL SOFTWARE. For full details http://www3.imperial.ac.uk/ict/newusers

For problems related to computing ICT, IT Services operate a Helpdesk at lunchtime (drop in or by appointment) in the Basement, Commonwealth Building, Hammersmith campus. Also in the basement of the Reynolds Building, Charing Cross campus.

Library facilities
The Libraries on the Charing Cross campus, South Kensington, Hammersmith and St Mary’s campuses hold copies of textbooks and Neuroscience research journals. Library staff provide guided tours of the facilities and training in on-line literature searching (sessions for these have been included in the timetable Introductory module). Photocopying facilities are available, and an inter-library loan service is provided so that books and journals that are not already in stock can be borrowed from other libraries. Library staff can also advise on access to other libraries in London which have good medical collections.

Careers Advisory Service
The College has its own professional Careers Advisory Service at the South Kensington Campus, and organises a number of Careers Fairs and company interviewing schemes, as well as being able to provide a more general careers advice service.
The MRes in Experimental Neuroscience from Imperial College represents a useful qualification for people intending to pursue a career in scientific research. Nearly all the students who have completed it have gone on to undertake PhD studies immediately following the end of the course. It is expected that a high proportion of the students will go on to study for a PhD, or to become Research Assistants. Medically qualified students, who return to clinical practice, will find that especially in cases where they have been unable to do an intercalated BSc, the MRes provides a good background for further research. Other career possibilities include scientific publishing, business analysis and clinical service. A session by one of the careers advisors is included in the Introductory module. In addition, careers advice, specific to Neuroscience can be obtained from the Careers Liaison Officer for Postgraduate Students.

Notices of job opportunities are posted on the Department and Personnel notice boards and on the College website.

Location of the Hammersmith Campus

Maps can be found at: http://www3.imperial.ac.uk/campusinfo

There is a limited shuttle bus service between the Charing Cross, Hammersmith & St Mary’s campuses and between Hammersmith, Imperial West and South Kensington campuses, otherwise the best means of travel is by public bus. For example, the 220 stops on Fulham Palace road outside the entrance of Charing Cross Hospital and just before Du Cane Road (5 minutes walk from Hammersmith Hospital). The 72, 272 and 283 buses run from just outside the Hammersmith hospital to bus and Underground stations. The 70 bus connects the Hammersmith and South Kensington campuses although often it is quicker to travel by the Underground. The two nearest Underground stations are White City and East Acton, both on the central line. It is recommended that you use the White City station early mornings and late evenings.

Hammersmith Campus library.

Opening hours are 09.00-21.00 Monday to Friday and 9.30-12.30 Saturday. It holds approximately 8,000 books and subscribes to approximately 500 periodicals in print format. Most Journals held by Imperial College are available online via the Library Website http://www3.imperial.ac.uk/library which makes them accessible from any campus. Please note, however, that online Journals may only be available for recent publications and although dates vary from Journal to Journal, articles published before 1995 may not be published online. PCs are available for use. The library has card operated photocopiers.

Food and drink.

There is a sandwich and coffee shop (Ex Libris) on the first floor of the Commonwealth building.

Sandwiches and hot meals can also be obtained in the Wolfson Restaurant, on the ground floor of the Wolfson Education Centre.

A greater food and drink selection can be found in the Eat Restaurant, which is open during the week and at weekends.
There is a newsagent in the hospital reception, a NatWest cashpoint opposite the newsagent and a branch of Subways is also located in the foyer area. Finally there is a small shop (Costcutters) at the East end of the campus.

**Location of the Charing Cross Campus**

The nearest Underground stations are Hammersmith (Piccadilly, District and Hammersmith & City lines) and Baron's Court (Piccadilly and District lines). Buses numbered 190, 211, 220 and 295 stop outside the main Hospital gate on Fulham Palace Road.

**Library**
The Library on the Charing Cross Campus holds multiple copies of the recommended textbooks and a range of periodicals covering the field of Neuroscience. The library has a number of computers that are for general use. They are all linked to the IC network. Each machine can be used for Medline and other on-line data base searches. Microsoft Office is also loaded onto each of these machines.

The Library is open, Monday to Friday, from 09.00 to 22.30 (21.00 on Thursday and Friday) and on Saturday from 09.30 to 12.00.

**Catering**

**Student Common Room and Reynolds Cafe**
This is situated on the ground floor of the Reynolds Building. Snacks and non-alcoholic beverages are served between 09.00 and 16.00 from Monday to Friday.

**The Margravine Restaurant**
Located on the second floor of the hospital South wing, it serves breakfast between 07.30 and 11.00. A full lunch menu is available between 12.00 and 14.30 and evening meals between 17.30 and 20.00, 7 days a week. The restaurant offers a salad bar, a variety of hot meals, and sandwiches, snacks and beverages. Vegetarian meals are also available.

**Coffee shops**
These are situated on the first floor and on the ground floor of the main foyer of the hospital, by the escalators. They open from about 7.30 each day. They offer a variety of menus, including a wide range of snacks, baked pastries, sandwiches and beverages. There is also a branch of Subways on the first floor of the main foyer of the hospital, by the escalators.

**Shops/Bank**

A Lloyds Bank cashpoint is situated in the South Wing corridor on the ground floor of the hospital near the lifts in the main entrance hall of Charing Cross Hospital.
A newsagent is located at the main entrance of Charing Cross Hospital, and is open from 7.30 to 19.30. It sells newspapers, postage stamps and stationery as well as toiletries, snacks, drinks and confectionery. There is also a gift shop. There is a Sainsbury’s local, a Waitrose local and a Tesco’s local within a short walk to the left out of the hospital on Fulham Palace Road.

Facilities on South Kensington Campus

The campus is a short walk from South Kensington Underground Station. There are many clubs and societies organised by the IC Students Union, whose main office is in Prince Consort Road. We hope you will join in some of these activities because it helps you to meet people from outside the Department/Division, but be selective — there is work to be done too!

- Refectories are mainly in the Sherfield Building and Southside.
- Union Shops and Stationers are on level 2, Sherfield Building approach.
- The main Imperial College Library can be used after you have registered and received your security pass.
- A branch of the National Westminster Bank is on level 1, Sherfield Building. There is also a ‘Service Till’ on level 2, Sherfield Building.
- Registry is on level 3 in Sherfield building.
- There is a Sports Centre in Princes Gardens with a gym, squash courts and a large swimming pool. There are also tennis courts for hire.
8. Things to do

London is one of the most exciting cities in the world and there are lots of things going on: for general events, during your stay you should look at the London Evening Standard (a daily free evening newspaper) and the weekly magazine Time Out.

The Imperial College Graduate Students’ Union is the representative body for postgraduate students. The Association arranges regular social events and provide support to students where ever possible. All postgraduates are automatically members of the Graduate Students’ Union.

All Imperial College students are members of International Students House (ISH), which acts as a social club for overseas students from all over London, co-ordinates a whole range of special services and events and is open all year round. For more information and membership details, contact ISH at 229 Great Portland Street, London, W1N 5HD or telephone 020 7631 8300.

Sports Facilities

All the facilities available at Imperial College (South Kensington) are available for use (see student webpage, http://www3.imperial.ac.uk/students). These facilities include a gym and swimming pool.

Also at Charing Cross, located on Aspenlea Road, next to the Hospital, is the Charing Cross Sports Club. For more information and membership details ring 020 8741 3654. Further details of leisure facilities can be obtained from the local borough offices, the Yellow Pages.
9. Information for new students

Information for new students can be found at: www.imperial.ac.uk/newstudents

Registration

Adequate instructions will be sent to you from the Postgraduate Registry concerning your registration at the start of the first term. Student Self-Service can be accessed at www.imperial.ac.uk/studentservice. As well as using this system to register online, students can also log in to update their contact details throughout the year. If you have any uncertainties about the procedure you should contact registry: www3.imperial.ac.uk/registry

Student services and entitlements

There are various sources where you can obtain help if you need it during your studies at College. It is important to remember that there is always someone who can help. You should read the relevant section of the Student website http://www3.imperial.ac.uk/students as all of the sources listed are available to students studying on the Hammersmith campus.

Advice from the Registry (The Student Hub)

The Registry on the South Kensington campus deals with the administration of student records, registration, tuition fees, examination entries, notification of changes of address, certificates of attendance (including visa letters) and Council Tax certificates. The office is located on the Level 3 of the Sherfield Building, and is open normally from 9.30 a.m. to 5.15 p.m. from Monday to Friday. www.imperial.ac.uk/registry/enquiries

Advice from the Student’s Union

The Imperial College Union’s Advice office employs a professional member of staff to advise students. The service is free, and provides independent, impartial and absolutely confidential advice. The Union Advisor is able to advise on practically any matter, including:

- student loans  - benefit entitlement
- legal matters  - employment law
- immigration rights  - consumer rights
- council tax  - landlord & tenant issues (housing rights)
- financial advice (includes debt & related issues)

The Union Advisor stresses that all consultations with students will remain confidential, and that details of any consultation will not be divulged to any third party without a student's express permission. You can make appointment with the Advisor yourself by telephoning the Welfare Advice line (020 7589 5111 ext. 48067) or the Union office (020 7594 8060). Imperial College Union’s Advice Office is located on the first floor of the Union Building in Beit Quad which is situated in Prince Consort Road, London, SW7 2BB. If you have any difficulty in making an appointment or experience any other problems with the service, please contact the Registry.
Careers advice
All full-time IC students may use the careers advisory service at the South Kensington Campus, telephone 020 7594 8024. Information is also available in the following website at: http://www.imperial.ac.uk/careers/

Accommodation
Information can be found on the College website at http://www.ic.ac.uk/hq/residences/
Accommodation @imperial.ac.uk.

General welfare advice
Sources of general welfare advice are listed on the student website http://www3.imperial.ac.uk/students

Health
If you have health problems, you should either make an appointment with your local GP, or the Occupational Health Service on http://www.imperialcollegehealthcentre.co.uk/ Tel: 020 7594 9375/6
24hour line: 020 7594 46302.

Counselling service
Counselling services are also freely available for students. They act as a totally confidential service for students to discuss any sort of problem with a sympathetic, trained, counsellor. They can be reached at: Student Counsellor at Imperial College, South Kensington. Telephone 020 7594 9637, counselling@imperial.ac.uk, www.imperial.ac.uk/counselling

English for overseas students
The College offers English classes free of charge to international students and details of these can be found in the Freshers’ Handbook. International students who would be interested in attending such classes should enquire at the Registry after registration.

International student centre of London
International Students House (ISH), in Central London, is a social and welfare centre for international students, providing accommodation, services and facilities and a full programme of social, cultural and sports activities. Its main aims are to promote social and cultural awareness and to facilitate the interaction of students with a view to enhancing international friendships.
ISH offers an advice service which aims to provide support to international students facing personal or practical difficulties whilst studying in London. It is open to all students at London’s academic institutions, and appointments can be made between 10.00 a.m. and 5.00 p.m., from Monday to Friday.

The ISH can be contacted at 229 Great Portland Street, London, W1N SHD or by telephone on 020 7631 8300.
Student Surveys

Your feedback is important to your department, the College and Imperial College Union. Whilst there are a variety of means to give your feedback on your Imperial experience, the following College-wide surveys give you regular opportunities to make your voice heard:

- PG SOLE lecturer/module Survey
- Student Experience Survey (SES)
- Postgraduate Taught Experience Survey (PTES)

The PG SOLE lecturer/module survey: This survey is your chance to tell us about the modules you have attended and the lecturers who taught them. For PG SOLE your lecturers will receive their individual numerical results and comments shortly after the survey closes. To make the most of your opportunity to give your feedback, please refrain from using offensive language or making personal, discriminatory or abusive remarks as these may cause offence and may be removed from the results. Whist this survey is anonymous, you are also cautioned to avoid self-identification by referring to personal or other identifying information in your free text comments.

Imperial College Union’s Student Experience Survey (SES) is another opportunity to leave your views on your experience. This survey will cover your induction, welfare, pastoral and support services experience.

The Postgraduate Taught Experience Survey (PTES) is the only national survey of Master’s level (MSc, MRes, MBA and MPH) students we do and so the only way for us to compare how we are doing against the national average and to make changes that will improve our Master’s students’ experience in future. PTES covers topics such as motivations for taking the programme, depth of learning, organisation, dissertation and professional development. During the spring term you will receive an email in your Imperial College account with a link to the survey.

All these surveys are anonymous and the more students that take part the more representative the results so please take a few minutes to give your views.

The Union’s “You Said, We Did” Campaign at https://www.imperialcollegeunion.org/you-said-we-did shows you some of the changes made as a result of survey feedback.

If you would like to know more about any of these surveys or see the results from previous surveys, please visit: http://www3.imperial.ac.uk/registry/proceduresandregulations/surveys

For further information on surveys please contact the Registry’s Surveys Team on surveys.registysupport@imperial.ac.uk
10. General information

Absence
Should students find they are absent for three days or longer through illness or any other reason, they are required to tell the Registry immediately giving a reason for their absence. The Registry should also be informed in the case of complete withdrawal from a course.

Addresses
Students must notify both the Registry and the Course Director of any change in their home or term-time addresses. Students are also reminded of the importance of notifying the Registry of any change to either their next-of-kin or their next-of-kin's address.

Statements of attendance
Statements or letters confirming your student status at the College, as described in the Freshers' Handbook, are available on written request, from the Registry. Please note that straightforward statements will take a minimum of two days to prepare and you should allow for this delay when you call in to request the document. Due to the heavy demand for such statements during the first week of term, the waiting period may need to be extended.

Verification of name and qualifications
This documentation will be checked at registration. Students who change their name during their course of study, through marriage or another reason, should inform the Registry. If the College records are to be amended, documentary evidence of the change must be produced.

Students are again reminded that any qualifications for which they may be eligible will be awarded in the name appearing in the College records.

Overseas students enrolled on a course of more than six months duration are eligible for free National Health Service care. However, there are some charges towards the cost of medicines, eye sight tests, glasses and dental care. It is very important that you register with a doctor as soon as you have moved into your accommodation; don't wait until you become ill. A list of local doctors and dental practitioners is available from the School Registry. Further lists may also be obtained from local main Post Offices and Libraries.

Full-time students enrolled on a course of nine months or more may be eligible for a discount on the Council Tax Bill. For further details regarding payment of Council Tax, you should contact the local authority in the area in which you will be living.
11. Useful telephone numbers

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital switchboard</td>
<td>0</td>
</tr>
<tr>
<td>Postgraduate Registry</td>
<td>020 7594 8039</td>
</tr>
<tr>
<td>Divisional Safety Officer</td>
<td>07714 051 213</td>
</tr>
<tr>
<td>Health Centre</td>
<td>020 7594 9375/6301</td>
</tr>
<tr>
<td>Counselling service</td>
<td>020 7594 9637</td>
</tr>
</tbody>
</table>

**Emergency numbers (Burlington Danes Building)**

Fire, or emergency medical attention 46666

If you are working on another campus add the security/ emergency telephone number here:

**Staff Telephone number and email addresses**

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Patricia Cover</td>
<td><a href="mailto:p.cover@imperial.ac.uk">p.cover@imperial.ac.uk</a></td>
<td>020 3311 7275</td>
</tr>
<tr>
<td>Prof Steve Gentleman</td>
<td><a href="mailto:s.gentleman@imperial.ac.uk">s.gentleman@imperial.ac.uk</a></td>
<td>020 3311 7680</td>
</tr>
<tr>
<td>Dr Magdalena Sastre</td>
<td><a href="mailto:m.sastre@imperial.ac.uk">m.sastre@imperial.ac.uk</a></td>
<td>020 7594 6673</td>
</tr>
<tr>
<td>Dr Adam Hampshire</td>
<td><a href="mailto:a.hampshire@imperial.ac.uk">a.hampshire@imperial.ac.uk</a></td>
<td>020 7594 7993</td>
</tr>
<tr>
<td>Dr Liam Nester</td>
<td><a href="mailto:liam.nester@imperial.ac.uk">liam.nester@imperial.ac.uk</a></td>
<td>020 7594 8860</td>
</tr>
</tbody>
</table>
12. Marking criteria for written work

**Imperial College**

**London**

**Department of Medicine**

**MRes in Experimental Neuroscience**

**Marking of course work**

The following scheme is recommended for the marking of each component of the coursework.

<table>
<thead>
<tr>
<th>Class</th>
<th>Percentage of available marks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinction</td>
<td>70 – 100</td>
<td>A well-planned piece of work demonstrating a thorough knowledge and understanding of the subject. The answer should include well-reasoned arguments supported by reference to appropriate scientific studies, together with evidence of critical and original thought.</td>
</tr>
<tr>
<td>Merit</td>
<td>60 – 69</td>
<td>A clear exposition demonstrating a thorough knowledge and understanding of the subject and a capacity to marshal facts and information and to reason logically. Some evidence of lateral thinking and critical insight.</td>
</tr>
<tr>
<td>Pass</td>
<td>50 – 59</td>
<td>A logical presentation of information demonstrating a basic understanding of the subject, supported by reasoned argument.</td>
</tr>
<tr>
<td>Borderline Fail</td>
<td>40 – 49</td>
<td>Intelligible but rather thin presentation of material indicative of only a limited appreciation of the subject.</td>
</tr>
<tr>
<td>Fail</td>
<td>35 – 39</td>
<td>Very limited information presented in a disorganised manner. Some ambiguities and errors.</td>
</tr>
<tr>
<td></td>
<td>0 – 34</td>
<td>Clearly lacking in content with omission of major points. Confused or erroneous reasoning and/or information.</td>
</tr>
</tbody>
</table>
### MRes in Experimental Neuroscience PROJECT ASSESSMENT

### Marking Criteria

<table>
<thead>
<tr>
<th>Literal Grade</th>
<th>Marks (%)</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinction</td>
<td>100</td>
<td>Exceptional. Report is written to a publishable standard, being an exceptionally well presented exposition of the project, showing: (i) clear and possible novel insights into the problem, (ii) rigorous and critical interpretation of the data or information obtained, (iii) technical excellence, (iv) in-depth analysis, and (v) a thorough understanding of the relevant literature</td>
</tr>
<tr>
<td></td>
<td>95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Distinction</td>
<td>80</td>
<td>Excellent. Report is a very well presented exposition of the project, showing most of the above features, but falling short in one or two of them</td>
</tr>
<tr>
<td></td>
<td>76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>Merit</td>
<td>68</td>
<td>Good. Report is a well presented exposition of the project, showing: (i) a clear grasp of the relevant concepts, (ii) appropriate but not high level analysis, (iii) evidence of critical interpretation of the data or information obtained, and (iv) a sound knowledge of the relevant literature. Where appropriate, project work shows a good grasp of experimental methodology and dissertation shows evidence of thorough and disciplined exploration of data sources</td>
</tr>
<tr>
<td></td>
<td>65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>62</td>
<td></td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>Adequate. Report is an adequately presented exposition of the project, showing: (i) a basic grasp of the relevant concepts, (ii) adequate interpretation and analysis of the data or information obtained, and (iii) sufficient knowledge of the relevant literature to set the results in scientific context</td>
</tr>
<tr>
<td>Pass</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>Fail</td>
<td>48</td>
<td>Borderline fail. Report is a just passable presentation of the project, showing a weak grasp of the relevant concepts and facts and is marred by errors, brevity and/or failure to interpret the data critically. Project work short in quantity and poorly executed</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Fail</td>
<td>35</td>
<td>Fail. Report is an incomplete presentation of the project, and is marred by major gaps, missing analysis, lack of references, misconception, etc. Project work insufficient for a pass.</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Report contains very little of relevance and is unsatisfactory in all respects</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>No project work was submitted or the report contains nothing of relevance to the work carried out</td>
</tr>
</tbody>
</table>

47
Assessment of MRes Project Oral Presentation

Student Name:

Title of Project:

Name of Supervisors:

Please assess performance by awarding a mark for each of the criteria below using the marking scheme described at the bottom of the page. Question 4 carries 40% if the marks for the oral presentation.

Assessment of the Oral Presentation

1. Rate the structure of the student’s presentation
   Comments:

2. Rate the use of audio-visual material
   Comments:

3. Rate the student’s verbal presentation skills
   Comments:

4. How well did the student cope with the questions?
   Comments:

Name of assessor.....................................................…

Signature.......................................................................

Date...............................................................................

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13. Important Links

‘Our Principles’ [http://www3.imperial.ac.uk/students/ourprinciples](http://www3.imperial.ac.uk/students/ourprinciples)

The Principles define the guiding principles of the College Community and cover all students, both undergraduate and postgraduate.

MRes Code of Practice:
[http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/codeofpractice/codeofpracticeformresprogrammes](http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/codeofpractice/codeofpracticeformresprogrammes)

Graduate School
[http://www3.imperial.ac.uk/graduateschools](http://www3.imperial.ac.uk/graduateschools)

Study guide for Master’s students
[https://workspace.imperial.ac.uk/college/public/pdfs/ISGMasters.pdf](https://workspace.imperial.ac.uk/college/public/pdfs/ISGMasters.pdf)

Postgraduate Open Day
[http://www3.imperial.ac.uk/visit/pgopenday](http://www3.imperial.ac.uk/visit/pgopenday)

The Registry Department (for when students need letters for opening a bank account etc., also results, transcripts,...)
[http://www3.imperial.ac.uk/registry/abouttheregistry](http://www3.imperial.ac.uk/registry/abouttheregistry)

Mitigation / extenuating circumstances policy and procedures:
[http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/examinationassessment](http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/examinationassessment)

Complaints and Appeals procedures:
[http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/complaintsappeals](http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/complaintsappeals)

Academic integrity:
[https://workspace.imperial.ac.uk/registry/Public/Procedures%20and%20Regulations/Policies%20and%20Procedures/Examination%20and%20Assessment%20Academic%20Integrity.pdf](https://workspace.imperial.ac.uk/registry/Public/Procedures%20and%20Regulations/Policies%20and%20Procedures/Examination%20and%20Assessment%20Academic%20Integrity.pdf)

Cheating offences policy and procedure:
[http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/disciplinary](http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/disciplinary)

Information about the Library:
[http://www3.imperial.ac.uk/library](http://www3.imperial.ac.uk/library)

Intellectual Property Policy:
http://www3.imperial.ac.uk/researchsupport/contractsandip/ippolicy

ICU:
http://www.imperialcollegeunion.org/

GSU:
https://www.imperialcollegeunion.org/faculty-unions/gsaweb/index,457,ICS.html

Student representation – how to become a student representative
https://www.imperialcollegeunion.org/representation

Details of departmental/College Committees, including Staff-Student Committees
http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/goodpractice

The importance of students providing feedback to the College – SOLE, PG SOLE, NSS
http://www3.imperial.ac.uk/registry/proceduresandregulations/surveys/additionalinfo/goodpracticeforsurveys/improvingparticipationrates/surveytemplates

Other support services, (Registry, Careers Advisory Service)
http://www3.imperial.ac.uk/registry
http://www3.imperial.ac.uk/careers

Welfare and Support

New Students Website: Contains relevant information for all new students.
http://www3.imperial.ac.uk/students/newstudents

Personal Tutor system, links to Roles and Responsibilities of Personal Tutors:
http://www3.imperial.ac.uk/registry/proceduresandregulations/qualityassurance/goodpractice/rolesandresponsibilities

PDRP:
http://www3.imperial.ac.uk/careers/staff/staff/pdp

Information for students with disabilities, including the Disability Advisory Service:
http://www3.imperial.ac.uk/disabilityadvisoryservice

Other welfare and pastoral care /support resources both Departmental and College-wide (e.g. College Tutors, Dean of Students, Counselling Service, Health Centre, NHS Dentist, Student Hub, Chaplaincy, support for International Students inc. ELSP)
http://www3.imperial.ac.uk/humanities/englishlanguagesupport
http://www3.imperial.ac.uk/students/welfareandadvice
http://www3.imperial.ac.uk/international/studentsupport
14. APPENDIX I: Policy on Scientific Misconduct

The College considers any allegation of scientific misconduct to be a matter of great concern and will investigate any such allegation fully. Given its international reputation and status, the College has a responsibility to the scientific community and to the public at large and therefore, where appropriate, will make public the outcome of any such investigation.

Definitions
The College has adopted the Royal College of Physicians’ definitions of scientific misconduct as including piracy, plagiarism and fraud. The following definitions give indicative descriptions of the types of activity covered by this regulation. These descriptions are neither exclusive nor exhaustive:

a. Piracy is the deliberate exploitation of ideas and concepts from others without acknowledgement.
b. Plagiarism is the copying of ideas, data or text (or a combination of these) without permission or acknowledgement.
c. Fraud involves deception—usually, but not exclusively, the invention of data. This could also include the omission from analysis and publication of inconvenient components of a data set.

Other types of scientific misconduct may be separately defined, but the College views them as combinations or sub-types of those defined above. In addition to scientific misconduct, these procedures will also apply to cases of scientific negligence. Procedures for the Investigation of Allegations of Scientific Misconduct: http://www3.imperial.ac.uk/registry/proceduresandregulations/policiesandprocedures/disciplinary
http://www.imperial.ac.uk/admin-services/registry/

STATEMENT ON PLAGIARISM

You are reminded that all work submitted as part of the requirements for any examination (including coursework) of Imperial College and the University of London must be expressed in your own words and incorporate your own ideas and judgements.

Plagiarism, that is, the presentation of another person’s thoughts or words as though they were your own, must be avoided, with particular care in coursework, essays and reports written in your own time. Note that you are encouraged to read and criticise the work of others as much as possible. You are expected to incorporate this in your thinking and in your coursework and assessments. But you must acknowledge and label your sources.

Direct quotations from the published or unpublished work of others, from the internet, or from any other source must always be clearly identified as such. A full reference to their source must be provided in the proper form and quotation marks used. Remember that a series of short quotations from several different sources, if not clearly identified as such, constitutes plagiarism just as much as a single unacknowledged long quotation from a single source. Equally, if you summarise another person’s ideas or judgements, figures, diagrams or software, you must refer
to that person in your text, and include the work referred to in your bibliography. Departments are able to give advice about the appropriate use and correct acknowledgement of other sources in your own work.

The direct and unacknowledged repetition of your own work which has already been submitted for assessment can constitute self-plagiarism. Where group work is submitted, this should be presented in a way approved by your department. You should therefore consult your tutor or course director if you are in any doubt about what is permissible. You should be aware that you have a collective responsibility for the integrity of group work submitted for assessment.

The use of the work of another student, past or present, constitutes plagiarism. Where work is used without the consent of that student, this will normally be regarded as a major offence of plagiarism.

Failure to observe these rules may result in an allegation of cheating. Cases of suspected plagiarism will be dealt with under the College's Examination Offences Policy and may result in a penalty being taken against any student found guilty of plagiarism.

Cheating Offences Policy and Procedures
http://www3.imperial.ac.uk/registry/exams/examoffences

Plagiarism advice for postgraduate taught course (Master’s) students
http://www.imperial.ac.uk/admin-services/library/learning-support/plagiarism-awareness/masters-students/

TurnitinUK Plagiarism Detection Service at Imperial College
http://www3.imperial.ac.uk/ict/services/teachingandresearchservices/elearning/plagiarism
http://www.imperial.ac.uk/admin-services/ict/self-service/teaching-learning/elearning-services/turnitin/
15. APPENDIX II:

Information for Students with disabilities, specific learning difficulties or long-term health issues

At Imperial College we recognise that studying at university can be a challenge, especially if you have a disability. We are keen that you have every opportunity to fulfil your potential and graduate with the degree you deserve. It is therefore important that you let us know about any disability, specific learning difficulty or health problem as soon as possible so that we can give expert advice and support to enable you to do this.

Some people never think of themselves as having a disability, but students who have experienced any of the issues listed below have found that a little extra help and support has made all the difference to their study experience.

- Specific learning difficulties (such as dyslexia, dyspraxia, AD[H]D)
- Autistic spectrum disorder (such as Asperger’s)
- Deafness or hearing difficulties
- Long term mental health difficulties (such as chronic anxiety, bipolar disorder, depression)
- Medical conditions (such as epilepsy, arthritis, diabetes, Crohn’s disease)
- Physical disabilities or mobility impairments
- Visual difficulties

Where to find help:

1. Your Disability Liaison Officer (Dr P Cover, p.cover@imperial.ac.uk, 020 3311 7275)
Dr P Cover is your first point of contact within your department and is there to help you with arranging any support within the department that you need. Dr P Cover is also the person who will apply for Special Examination arrangements on your behalf. You need to contact her without delay if you think that you may need extra time or other adjustments for your examinations. [http://www3.imperial.ac.uk/registry/exams/specialexamarrangements](http://www3.imperial.ac.uk/registry/exams/specialexamarrangements)

2. Disability Advisory Service: [http://www3.imperial.ac.uk/disabilityadvisoryservice](http://www3.imperial.ac.uk/disabilityadvisoryservice)
The Disability Advisory Service works with individual students no matter what their disability to ensure that they have the support they need. We can also help if you think that you may have an unrecognised study problem such as dyslexia. Our service is both confidential (information about you is only passed on to other people in the university with your agreement) and individual in that any support is tailored to what you need.

Some of the sorts of things we can help with are:
- Being an advocate on your behalf with others in the College such as your departmental liaison officer senior tutor or exams officer, the accommodation office or the estates department
- Checking that your evidence of disability is appropriate and up-to-date
- Arranging a diagnostic assessment for specific learning difficulties
- Help with applying to the College for the cost of an assessment
- Help with your application for the Disabled Students Allowance (DSA) see below
- Helping students not eligible for the Disabled Students Allowance in obtaining support from other sources
- Help with arranging extra Library support
- Supporting applications for continuing accommodation for your second or later years
3. Disabled Students Allowance: 
http://www3.imperial.ac.uk/disabilityadvisoryservice/supportforstudents/dassupport
Students who are home for fees and who have a disability can apply for a grant called the Disabled Students Allowance which can pay any extra costs that are a direct result of disability. This fund is not means-tested and is also a grant not a loan so any home student with a disability can apply and will not be expected to pay it back. Remember students with unseen disabilities such as mental health difficulties, dyslexic type difficulties or long term health problems are also eligible for this fund.
APPENDIX III:

Programme Specification for the MRes in Experimental Neuroscience

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. This specification provides a source of information for students and prospective students seeking an understanding of the nature of the programme and may be used by the College for review purposes and sent to external examiners. More detailed information on the learning outcomes, content and teaching, learning and assessment methods can be found in the course handbook online at https://www.imperial.ac.uk/media/imperial-college/medicine/study/postgraduate/MRes-in-Experimental-Neuroscience-Handbook-2015-16.pdf. The accuracy of the information contained in this document is reviewed by the College and may be checked by the Quality Assurance Agency.

1. Awarding Institution: Imperial College London
2. Teaching Institution: Imperial College London
3. External Accreditation by Professional / Statutory Body: External examiners
4. Name of Final Award (BEng / BSc / MEng, MSc, MRes etc.): MRes
5. Programme Title (e.g. Biochemistry with Management): Experimental Neuroscience
6. Date of production / revision of this programme specification: September 2016
7. Name of Home Department: Medicine
8. Name of Home Faculty: Medicine
9. UCAS Code (or other coding system if relevant): A3TZ
10. Relevant QAA Subject Benchmarking Group(s) and/or other external/internal reference points

QAA Subject Benchmarking for Masters programmes are currently under review. The accreditation of this course has been reviewed by the Graduate School with reports from external referees.

11. Level(s) of programme within the Framework for Higher Education Qualifications (FHEQ)

| Master's (MSc, MRes, MBA, PG Diploma, PG Certificate etc.) | Level 7 |

12. Mode of Study Full-time: Full-time
13. Language of Study: English
14. Educational aims/objectives of the programme

The aim of the course is to offer hands on experience of the application of a wide range of core techniques to current areas of neuroscience research. It thus prepares the students for the rigors of research and equips them to make a more informed choice of Ph.D. project.
Those students who choose not to follow a PhD will end the MRes course with an enhanced understanding of the research process and training in transferable skills. They will be offered careers advice during the course regarding the range of options available.

**The programme aims/objectives are to:**

- Develop core transferable skills such as oral and written presentations.
- Develop an understanding that enables students to critically evaluate current research and associated techniques.
- Develop hands on practical skills in a wide range of experimental techniques
- Develop skills in experimental design and data analysis

15. Programme Learning Outcomes

1. **Knowledge and Understanding**

Knowledge and Understanding of:

- the range of topics and experimental approaches in modern neuroscience
- the research process that enables the student:
  - (iv) to evaluate critically current research
  - (v) to evaluate methodologies and develop critiques of them
  - (vi) to design and conduct appropriate research

To achieve these goals the students undertake three research projects on different topics and write three mini-dissertations on set topics that do not overlap with their research projects. Each research project must be undertaken in a different research group in order to increase the range of practical skills and to understand the variation in group dynamics. Students are also strongly encouraged to attend departmental and other seminars in the area of neuroscience.

2. **Skills and other Attributes**

**Intellectual Skills:**

- A broad understanding of neuroscience
- The ability to critically evaluate the state of knowledge derived from neuroscience research.
- The ability to formulate hypotheses based on an understanding of neuroscience

**Practical Skills:**

- The ability to design experiments with clear outcomes
- Experience of a wide range of experimental techniques
- The analysis of experimental results including the use of appropriate statistics

**Professional Skills Development:**

- The ability to communicate information and ideas in written and oral form
- The ability to work as part of a team and as an individual
- Decision-making in complex and unpredictable situations
• The independent learning ability required for continuing professional development.

In addition to the training embedded in the programme, the Graduate School runs a Professional Skills Development programme for Master’s level students. The programme, consisting of the “MasterClass” workshops and e-learning modules, aims to help students develop the skills needed both in their academic studies and in obtaining and progressing in their future careers. The Careers Advisory Service also provides training and support for students on career options, job seeking and interviews.

16. The following reference points were used in creating this programme specification:

Course Handbook
FHEQ Qualification Level Descriptors

17. Programme structure and features, curriculum units (modules), ECTS assignment and award requirements

The MRes course is divided into three parts, A, B and C. All components of the course are compulsory.

Each part consists of an 11-12 week hands on research project followed by a two week write-up. In the week following the submission of the project report (4,000-6,000 words long not counting references and figure legends) each student must present and answer questions on the research project. In parallel each student is required to deliver a mini-dissertation on a set question in neuroscience that is unrelated to any of the research projects. The mini-dissertations are expected to include reference to and critical analysis of the primary literature relevant to the topic. The mini-dissertations should be 3,000 to 5,000 words long not counting references. Students must submit all of the above elements in order to pass each part of the course. Each research project is 25% of the total and each mini-dissertation is 8.3% of the total mark for the course.

Part A is 30 ECTS
Part B is 30 ECTS
Part C is 30 ECTS

18. Support provided to students to assist learning (including collaborative students, where appropriate).

Departmental/Course Induction Programme:

The first week of the course includes an introduction to the aims of the course, the timetable, the timing and nature of assessments and a warning about plagiarism. Students are also given the opportunity to acquire basic skills in information technology, literature evaluation, principles of statistical evaluation and presentation skills required for the course. The course handbook is provided along with a description of the different campuses that the course may be taught on.

Departmental Facilities:

As part of the first week students are given a tour of facilities including the library and other study facilities. A health and safety induction is also provided.

Course Feedback Policy:

The Course Tutor will arrange individual meetings with each student half way through each rotation to discuss general progress or problems of any nature. At the end of each rotation, after assessments have taken place, students will receive written feedback on their performance.
Welfare and Pastoral Care:

College student welfare services are the responsibility of the Director of Student Affairs who manages the Head of the Student Counselling Service, the Senior Disability Officer, the College Tutors and the Hall Wardens. The Director of Student Affairs acts as liaison between the College and the College Health Centre (NHS) and the Chaplaincy and works closely with the ICU Deputy President (Welfare) to enhance welfare, advice and support.

Within the department each student is assigned a personal tutor. Students are also advised about the wider College provision for pastoral and welfare support. Students who have not previously registered a disability are requested to do so confidentially, by the department pastoral support team, so that suitable provision can be made with respect to teaching and learning support services and for assessments.

The Library

There are libraries at all Imperial College campuses; with print collections, PCs, study space and other amenities. The Library has extensive electronic resources, including electronic databases, electronic books and full text electronic journals. Students are able to search for electronic resources, using the on-line library catalogue and web pages, and access them from anywhere on and off campus.

English Language Support Unit

The English Language Support Unit (ELSU) offers classes, the majority of which are free of charge, to students and members of Imperial College London who are not native speakers of English.

19. Criteria for Admission

Candidates are required to have a good first degree in an appropriate medical or science subject at an upper second class or better from a UK university or an equivalent qualification obtained outside the UK. In exceptional cases candidates with a 2.2 degree or equivalent will be considered.

Students for whom English is not their first language and who did not undertake their undergraduate degree in English will be expected to pass the British Council IELTS test at grade 6.0 or above, with a score of 5 or above in each component. An alternative is the TOEFL Internet Based Test (iBT) with a minimal score of 90 overall, with required scores of 20 in Speaking and 24 in Writing.

20. Processes used to Select Students

In order to apply for a place, students must complete the online Imperial College London Postgraduate application form and two confidential references are requested for each candidate. Applications are then assessed by the Course Organiser before suitable candidates (see above) are invited for interview. The interviews take place at Imperial College London by the Course Organiser and at least one other member of the MRes Committee.

21. Methods for Evaluating and Improving the Quality and Standards of Teaching and Learning

a) Methods for review and evaluation of teaching, learning, assessment, the curriculum and outcome standards:

The external examiner system and Boards of Examiners are central to the process by which the College monitors the reliability and validity of its assessment procedures and academic standards. Boards of Examiners comment on the assessment procedures within the College and may suggest improvements for action by relevant departmental teaching Committees.
At programme level, the Head of Department has overall responsibility for academic standards and the quality of the educational experience delivered within the department.

The Faculty Studies Committees and the Graduate School Master’s Quality Committees review and consider the reports of external examiners and accrediting bodies and conduct internal routine reviews of programmes. The Quality Assurance and Enhancement Committee conducts external periodic reviews at departmental level. Regular reviews ensure that there is opportunity to highlight examples of good practice and ensure that recommendations for improvement can be made.

Most of the College's undergraduate programmes are accredited by professional engineering and science bodies or by the General Medical Council. Accreditation provides the College with additional assurance that its programmes are of an appropriate standard and relevant to the requirement of industry and the professions. Some postgraduate taught courses are also accredited.

b) Committees with responsibility for monitoring and evaluating quality and standards:

The Senate oversees the quality assurance and regulation of degrees offered by the College. It is charged with promoting the academic work of the College, both in teaching and research, and with regulating and supervising the education and discipline of the students of the College. It has responsibility for approval of changes to the Academic Regulations, major changes to degree programmes and approval of new programmes.

The Quality Assurance and Enhancement Committee (QAEC) is the main forum for discussion of QA policy and the regulation of degree programmes at College level. The QAEC develops and advises the Senate on the implementation of College policies and procedures relating to quality assurance, enhancement and internal audit of quality and arrangements necessary to ensure compliance with national and international frameworks and codes of practice relating to academic standards, quality assurance and enhancement.

The Faculty Studies Committees and the Graduate School Master’s Quality Committees are the major vehicle for the quality assurance of undergraduate / Master’s level courses respectively. Their remit includes: setting the standards and framework, and overseeing the processes of quality assurance, for the areas within their remit; monitoring the provision and quality of e-learning; undertaking reviews of new and existing courses; noting minor changes in existing programme curricula approved by departments; approving new modules, changes in module titles, major changes in examination structure and programme specifications for existing programmes; and reviewing proposals for new programmes, and the discontinuation of existing programmes, and making recommendations to Senate as appropriate.

The Faculty Teaching Committees maintain and develop teaching strategies and promote inter-departmental and inter-faculty teaching activities to enhance the efficiency of teaching within Faculties. They also identify and disseminate examples of good practice in teaching.

Departmental Teaching Committees have responsibility for the day-to-day oversight of a department’s programmes including the approval of minor changes to course curricula and examination structures and approval of arrangements for course work.

c) Mechanisms for providing prompt feedback to students on their performance in course work and examinations and processes for monitoring that these named processes are effective:

Members of staff are given marking deadlines to ensure that feedback can be given as quickly as possible. Feedback is usually given via the Course Organiser who also keeps the students appraised on their performance on the course to date.

d) Mechanisms for gaining student feedback on the quality of teaching and their learning experience and how students are provided with feedback as to actions taken as a result of their comments:
Students are invited to participate in surveys so that student feedback on the College and its courses can be obtained and used to enhance provision. External surveys in which students participate include:

- National Student Survey (NSS)
- Postgraduate Research Experience Survey (PRES)
- International Student Barometer (ISB)

Internal surveys include:

- SOLE (undergraduate student online evaluation exercise)
- PG SOLE (Master’s student online evaluation exercise)
- TOLE (tutor online evaluation exercise)

Staff-Student committees are the primary arenas for staff-student engagement at a departmental level. Staff-student committees are run slightly differently according to the size and UG:PG ratio of the department. Most departments have separate committees for undergraduates and postgraduates. A range of issues are discussed from SOLE and PG SOLE reports, external examiner reports and curriculum changes to practical issues, such as the availability of computers and pastoral care. Staff-Student Committees elect a Chair each year, which could be either a member of staff or a student. If the Chair is a member of staff, the Deputy Chair should be a student, and vice versa. The Chair will liaise with the department and students to agree an agenda for the meeting in advance.

e) Mechanisms for monitoring the effectiveness of the personal tutoring system:

The personal tutors report, via the Course Tutor, to the Experimental Neuroscience Steering Committee that holds regular meetings. Student confidentiality is preserved.

f) Mechanisms for recognising and rewarding excellence in teaching, research supervision, pastoral care and supporting the student experience:

Staff are encouraged to reflect on their teaching, in order to introduce enhancements and develop innovative teaching methods. Each year College awards are presented to academic staff for outstanding contributions to teaching, pastoral care, supporting the student experience or research supervision. A special award for Teaching Innovation, available each year, is presented to a member of staff who has demonstrated an original and innovative approach to teaching. Nominations for these awards come from across the College and students are invited both to nominate staff and to sit on the deciding panels.

g) Staff development priorities for this programme include:

Completion of CASLAT or equivalent experience in teaching.

22. Regulation of Assessment

a) Assessment Rules and Degree Classification:

For undergraduate programmes:
Classification of degrees will be according to the following range of marks:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Marks Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>First class</td>
<td>70 - 100%</td>
</tr>
<tr>
<td>Second class (upper division)</td>
<td>60 - 69.9%</td>
</tr>
<tr>
<td>Second class (lower division)</td>
<td>50 - 59.9%</td>
</tr>
</tbody>
</table>
Third class 40 - 49.9%

The pass mark for all undergraduate programmes is 40%.

For **Master’s programmes**:  
The Pass Mark for Master’s level programmes is 50%.

Examiners have the discretion to award a result of merit or distinction to candidates who have fulfilled the requirements for the award of the Master’s degree as specified in the Examination Regulations. Postgraduate Diplomas and Postgraduate Certificates are unclassified and are pass/fail only.

In order to be awarded a result of merit, a candidate must achieve at least 60 per cent in each element; in order to be awarded a result of distinction, a candidate must achieve at least 70 per cent in each element.

Where appropriate, a Board of Examiners may award a result of merit where a candidate has achieved an aggregate mark of 60% or greater across the programme as a whole AND has obtained a mark of 60% or greater in each element with the exception of one element AND has obtained a mark of 50% or greater in this latter element.

Where appropriate, a Board of Examiners may award a result of distinction where a candidate has achieved an aggregate mark of 70% or greater across the programme as a whole AND has obtained a mark of 70% or greater in each element with the exception of one element AND has obtained a mark of 60% or greater in this latter element.

Further information is available in the [Academic and Examination Regulations](https://www.imperial.ac.uk/media/imperial-college/medicine/study/postgraduate/MRes-in-Experimental-Neuroscience-Handbook-2015-16.pdf)

The marking scheme for this programme is available at:


**b) Processes for dealing with mitigating circumstances:**

[The College’s Extenuating Circumstances Affecting Academic Performance: Policy and Procedures](https://www.imperial.ac.uk/media/imperial-college/medicine/study/postgraduate/MRes-in-Experimental-Neuroscience-Handbook-2015-16.pdf) makes provision for Boards of Examiners to use their discretion where extenuating circumstances are independently corroborated and are judged by the advisory panel to be of sufficient severity to have substantially affected performance.

**c) Processes for determining degree classification for borderline candidates:**

For **undergraduate programmes**: Candidates who fall no more than 2.5% below the minimum mark for a higher honours classification shall be eligible for review of their final classification; this review could include an oral examination or practical test or other mechanism appropriate to the discipline. Candidates whose marks are below the 2.5% borderline may be considered for a higher honours classification where certain provisions apply. Where the Board of Examiners determines that a candidate should be awarded a higher honours classification extra marks should be applied to bring their final marks into the higher range. Detailed records of all decisions should be recorded in the minutes of the meeting of the Board.

For **Master’s programmes**: Candidates should only be considered for promotion to pass, merit or distinction if their aggregate mark is within 2.5% of the relevant borderline. Nevertheless, candidates whom the Board deems to have exceptional circumstances may be considered for promotion even if their aggregate mark is more than 2.5% from the borderline. In such cases the necessary extra marks should be credited to bring the candidate’s aggregate mark into the higher range. Detailed records of all decisions should be recorded in the minutes of the meeting of the Board.

**d) Role of external examiners**
The external examiner system and Boards of Examiners are central to the process by which the College monitors the reliability and validity of its assessment procedures and academic standards. External examiners’ primary duties are to ensure that the standard of the College’s degrees is consistent with that of the national sector; to ensure that assessment processes measure student achievement rigorously and fairly and that the College is maintaining the threshold academic standards set for its awards in accordance with the frameworks for higher education qualifications and applicable subject benchmarks statements. External examiners gather evidence to support their judgement through the review of course materials, approval of draft question papers, assessment of examination scripts, projects and coursework, and in some instances, through participation in viva voce and clinical examinations. External examiners are members of Boards of Examiners and participate in the determination of degree classifications and student progress.

External examiners submit their reports to the Provost. The reports are scrutinised by the Vice-Provost (Education) and by the Registry QA team to identify any points of concern. These are then referred to the Head of Department and Chairman of the Board of Examiners, with a request to comment on the points raised and to explain how any concerns will be addressed. The reports and departmental comments are subsequently considered by the relevant Faculty Studies Committee or Graduate School Master’s Quality Committees, which may seek further assurances from a department on the resolution of a particular problem. The Committees will also consider examples of good practice raised by the external examiners. Following consideration of the reports, the Registry provides feedback to external examiners. From 2012-13 external examiner reports, and the departmental responses to them, are available on the College’s intranet.

23. Indicators of Quality and Standards:

Reports of external examiners
Review by the Graduate School

24. Key sources of information about the programme can be found in:

MRes Experimental Neuroscience Course Page online: http://www1.imperial.ac.uk/departmentofmedicine/postgraduate/experimentalneuroscience/

Postgraduate Prospectus, Imperial College of Science, Technology & Medicine (available online http://www3.imperial.ac.uk/pgprospectus