

Doctoral Training Partnership in Biomedical Sciences

Workshop Listings 2019-20

The following workshops are available to graduate students enrolled in specific doctoral training programmes, including the Wellcome Trust 'Cell Therapies and Regenerative Medicine' Four-Year PhD Programme. They provide further theoretical and practical training alongside laboratory project work. The workshops available vary slightly from year to year in response to student feedback and staff availability.

Year 1: Biomedical and Translational Science MRes

Wellcome Trust PhD Programme students will be enrolled in the Biomedical and Translational Science MRes during their first year of the PhD Programme. They will take eight **experimental skills** workshops which are assessed and contribute 20 of the 180 MRes credits.

In year one, it is compulsory for students enrolled in the Wellcome Trust PhD Programme to take these **four core workshops**:

1. Experimental design and statistical methods
2. Research ethics and integrity
3. Stem Cells and Regenerative Medicine 1 – Latest Developments
4. Stem Cells and Regenerative Medicine 2 - Adult Mouse Stem Cells Practical

Students must also select a further **four free choice workshops** from the below list. They are welcome to choose workshops offered by any of the themes and will be provided with further details in a workshop catalogue prior to start of the MRes year.

Organised by MRC DTP Theme 1 MOLECULES, CELLS & THE BASIS OF DISEASE:

- Critical thinking skills
- Practical Bioinformatics
- Flow cytometry
- Imaging (light and electron microscopy)
- Proteomics mass spectrometry
- Recombinant protein production and protein interaction assays
- CRISPR Genome Editing: Design & Strategy

Organised by MRC DTP Theme 2 NEUROSCIENCE, PSYCHIATRY & MENTAL HEALTH:

- Critical thinking skills
- Genetic association studies: uncovering the secrets of your genome

- Using mouse models to study behavior
- Publishing high impact papers (available to students in years 2-4 only)
- EEG

Organised by MRC DTP Theme 3 PHYSIOLOGICAL MEDICINE:

- Critical thinking skills
- Mammalian cell culture
- Fluorescence immunohistochemistry
- Non-coding RNAs in disease
- Radioimmunoassay
- Quantitative polymerase chain reaction (qPCR)

Organised by MRC DTP Theme 4 IMAGING & BIOMEDICAL ENGINEERING:

- Critical evaluation of the scientific literature
- Introduction to whole body imaging
- Molecular imaging with radionuclides
- Multi-modal imaging (non-radionuclide)

Organised by Wellcome Trust PhD Programme in CELL THERAPIES & REGENERATIVE MEDICINE:

- Stem Cells and Regenerative Medicine 1 – Latest Developments
- Stem Cells and Regenerative Medicine 2 - Adult Mouse Stem Cells Practical
- Introduction to R
- RNA-seq and ChIP-seq Analysis
- Ensembl Genome Exploration
- Statistical Analysis with R
- Introduction to UNIX
- Single cell data analysis

Organised by NIHR Maudsley Biomedical Research Centre PhD Programme:

- Conducting and analysing qualitative interviews

Organised by Cancer Research UK King's Health Partners Centre:

- Critical thinking skills - Cancer Immunology

Organised by MRes Tissue Engineering and Innovation Technology (TEIT):

- Designing and planning a research project

Organised by Guy's BRC PhD Programme:

- An introduction to high performance computing for NGS analysis

Year 2-4: MPhil/PhD as described in PhD Proposal

In years two – four, the updated workshop catalogue will remain available to Wellcome Trust ‘Cell Therapies and Regenerative Medicine’ Four-Year PhD Programme students. When spaces are available, students will be able to sign up to workshops of interest. Every effort is made to meet demand when workshops are oversubscribed.