

'Physical Biology of Stem Cells'
MRC Four Year PhD Programme in Stem Cell Biology & Medicine

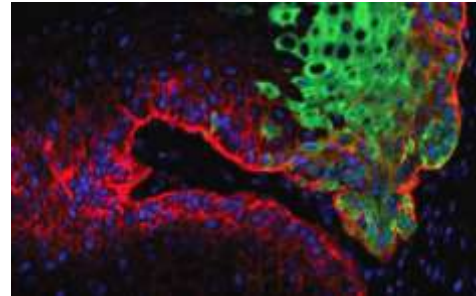
Studentships starting October 2016

Application Closes: 4th February 2016 ♦ **Interview Date: 29th February 2016**

<http://www.stemcells.cam.ac.uk/studentships/phy-biol/>

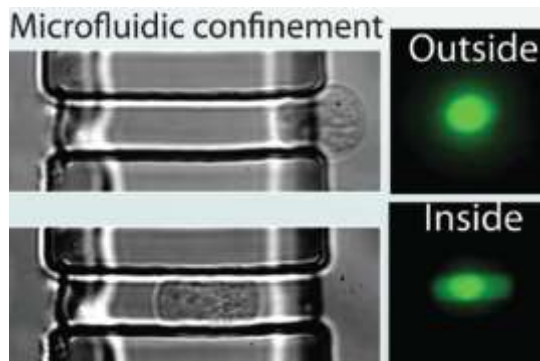
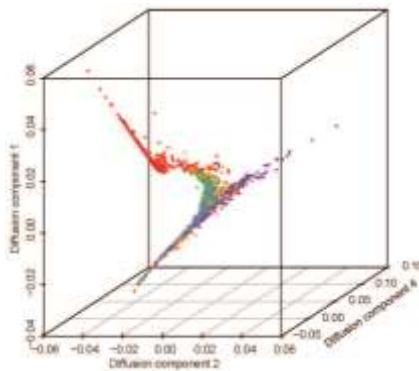
Programme Overview

This studentship is targeted to applicants with a Physical Sciences, Mathematical or Computational Sciences background, who are interested in applying their training to aspects of stem cell biology. This programme provides students with an opportunity to spend time in three different labs during their first 'rotation' year, before deciding where to undertake their thesis work for years 2-4.



Physical Biology of Stem Cells

Stem cells are defined by their dual capacity to self-renew and differentiate into somatic cells. Great inroads have been made towards understanding how stem cells generate tissue and sustain cell turnover in tissue. At this time most of the inroads have been made by studying the biochemistry of stem cells. Much less progress has been made in understanding their function across scales – from molecules to tissue – or how they interact with their physical environment. In studying the physical biology of stem cells, the aim is to identify and characterise the importance of physical, chemical, mathematical, and engineering considerations in the function of stem cells. This could include mathematical modelling of homeostasis in tissues, engineering controlled environments to control stem cell function, imaging and biotechnology, using single molecule approaches to study molecular interactions, systems biology, or investigating the importance of the stem cell's response to forces in its environment. The research generated by the MRC studentships should provide new foundations for biomedical discovery, biotechnological and biopharmaceutical exploitation, and clinical applications in regenerative medicine.



Qualification Eligibility

We welcome applications from those who hold (or expect to be awarded) a relevant first degree at the highest level. You should have a passion for scientific research, specifically with a Physical Sciences, Mathematical or Computational Sciences background.

Financial Support

Applicants must meet the MRC eligibility requirements outlined at <http://www.mrc.ac.uk/skills-careers/studentships/studentship-guidance/student-eligibility-requirements/>

Application Process

Visit <http://www.stemcells.cam.ac.uk/studentships/phy-biol/> for further details including how to apply. Please note you will be required to complete and submit a departmental application form, provide two references and upload copies of your transcripts as part of the application process.

Informal enquiries are also welcome via email to sci-phd@stemcells.cam.ac.uk