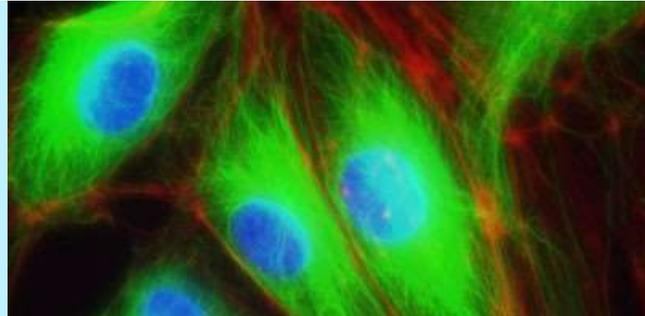


Welcome

Congratulations on receiving an offer from the MSc(Res) in Translational Oncology. This monthly newsletter is designed to keep you up-to-date with the latest course news and provide you with information on living and studying in Sheffield. If you have any questions just ask and we look forward to seeing you in the Autumn.



Overview of the course (Part 1)



Brief Overview

The course consists of 5 taught modules, a literature review and a 6 month research project. The taught modules cover detailed analysis of the cellular and molecular basis of cancer, cancer epidemiology and statistics, clinical diagnosis and treatment of cancer, tumour microenvironment and cancer technologies and clinical trials. Each topic within these modules is taught by an expert researcher or clinician in the field meaning that there are over 70 expert lecturers involved making it a truly research led course. In addition research nurses and patients also give their perspective on recent advances in cancer treatment and on the patient pathway from diagnosis to treatment, as well as involvement in clinical trials, making this a unique aspect of our course.

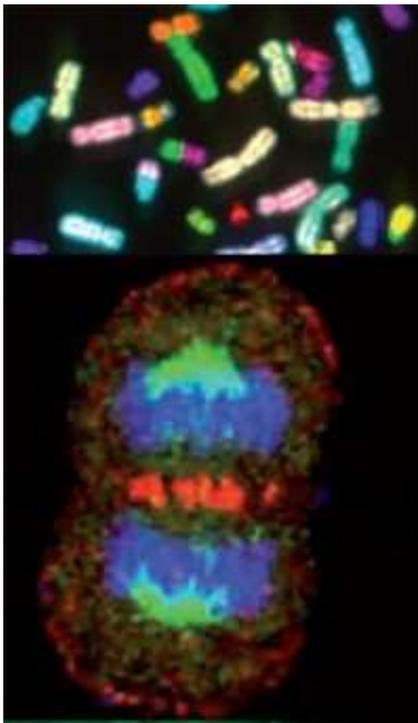
More details on the course structure can be found on our webpages.



Meet the Course Director: Dr Carolyn Staton

My interest in cancer research started at a very early age, and culminated in my PhD investigating the effects of fibrinogen and its breakdown products on tumour angiogenesis (blood vessel formation). I have continued to work in the field ever since, becoming an internationally recognised angiogenesis expert. Throughout my research career my main interest has been in establishing potential new targets for the treatment of tumours, mostly using vascular targeting therapies. [Find out more about me here.](#)

I am passionate about teaching and giving students the opportunities to learn how to do research properly in hypothesis driven manner. This passion has led me to design a longer research module than most MSc courses to give students longer to really get to grips with the research methods and to generate meaningful data. The assessment of this module, by both oral presentation and a manuscript style dissertation, as well as the greater laboratory experience really helps students to gain confidence and to prepare them for life in research based environments.



Module 1: Cellular and Molecular Basis of Cancer

The module delivers a contemporary analysis of cancer molecular biology, with emphasis on cellular components mutated or dysfunctional in cancer. This will include the cancer hallmarks, cell communication, cell cycle and checkpoints, genomics/epigenomics, cancer syndromes and molecular therapies. We will examine how dysregulation of signalling contributes to cancer and how targeted/personalised approaches will transform therapy.

Assessment will be through a referenced written seen exam and a journal club presentation and will look to confirm understanding of core concepts and critical awareness of cancer biology. Student feedback on this module has been extremely positive and included such statements as: *"I thoroughly enjoyed this module and feel the way that it was organized/delivered was also brilliant"* and *"This module gave a very good overview of tumour biology"*.

For those who do not have a biology based undergraduate degree we recommend reading 'The Molecular Biology of the Cell by Alberts et al' in advance of starting this module.

Meet Dr Helen Bryant: Module 1 Lead



"The aim of my research is to understand what happens in a cell when DNA replication is slowed or stopped by damage in DNA. I want to understand which proteins bind to the arrested DNA, whether they are modified in any way and what significance this has on the reestablishment of replication. By understanding the normal control mechanisms in cells I aim to understand why defects in the proteins involved are associated with cancer. I want to pinpoint differences between dividing tumour cells and dividing normal cells and determine which are important in cancer development. This will enable us to develop drugs which can specifically kill the tumour cells rather than just all dividing cells.

We have particular interests in the mechanisms of genetic instability in bladder, breast and uveal cancer and enjoy close ties with our clinical colleagues in the Royal Hallamshire Hospital (including several joint projects). This has enabled us to translate our research quickly into potential therapies. Examples of these will be used in the module." Check out Helen's webpage: [here](#).

A graduate's view of the course (Ameera)



This course provided a good balance of study and work experience, especially for a future career in scientific research. There were many opportunities to network with clinicians and researchers who gave lectures and/or supervised our research projects. This can be critical for future collaborations such as PhDs or research work. Through my research experience, I honed critical laboratory techniques which allowed me to contribute significantly towards a laboratory-based internship. As a result, I got a job and PhD offer to continue my projects!

Why study in Sheffield



A city like no other

Sheffield has recently been voted the best place in Britain for social life. It is a city of stunning landscapes, creative, welcoming, rich in culture and history, but with a modern outlook and lots to see and do. There is all the buzz and stimulation of city life, but none of the stress. Instead there's the friendly, laid-back feel of a village and some staggeringly beautiful scenery. In Sheffield you get the best of both worlds.



Whether you're after a bit of culture or just having fun and games there is nowhere better to live than Sheffield. There's a pulsating grassroots creative arts community, a harmonious multicultural population, more parks and woodland than any other UK city, striking Victorian and modern architecture, big shopping at Meadowhall, small shopping at niche independent stores, the best pubs in Britain, dazzling public art, stylish restaurants, champion sport facilities, a legendary music scene, great cafes and coffee shops, secret parties, urban farms, Supertrams, seven hills, five rivers and two and a half million trees...



We could go on. And it's worth knowing that, after graduating, more students decide to stay on and live in Sheffield than in any other city. Check out this [video](#) for further information.

For more information

Follow us on Facebook

We have a course Facebook page which you can use to keep you up-to-date with events happening on the course: [Here](#)

Any questions?

If you have any questions about the course or anything related to the course then please feel free to get in touch with the Course Director, Dr Carolyn Staton at c.a.staton@sheffield.ac.uk.