



# MSc in Cancer Sciences

**This Masters in Cancer Sciences\* will prepare you for a career in cancer science, whether you aim to pursue a PhD or further medical studies, or seek a career in the health services sector, in the life sciences, biotechnology or pharmaceutical industries.**

## **Our programme takes a “bench to bedside” approach.**

This will enable graduates to work within a multidisciplinary environment of world-leading scientists and cancer-specialists to address the latest challenges in cancer diagnosis, research and treatment, including the complexities of early and effective diagnosis, identifying cancer- and patient-specific treatment, and overcoming partial response and recurrence after treatment.

## **You will be taught by a multidisciplinary team of world leading cancer scientists and clinicians within the Cancer Research UK Glasgow Centre.**

This Centre brings together scientists and clinicians from research centres, universities and hospitals around Glasgow to deliver the very best in cancer research, drug discovery and patient care. The Centre's world leading teams have made major advances in the understanding and treatment of many cancers. For more information, please visit: [www.wecancentre.org](http://www.wecancentre.org)

## **This programme is UNIQUE in the UK as it delivers integrated teaching in molecular biology, cell biology, pathology and clinical science.**

Each week is focused around one of the new Hallmarks of Cancer, with a lecture on molecular/cellular biology followed by lecture on how this hallmark can be targeted in the clinic. Theoretical or practical training in relevant methodology is then followed by a tutorial session in which you can discuss and integrate your learning from the week. This will enable you to understand how research into the fundamental principles of cancer cell biology can translate to advances in the diagnosis, treatment and care of cancer patients.



## **The aim of this programme is to train cancer researchers who can break down the barriers that currently prevent discoveries at the bench from being translated into treatments at the bedside.**

By understanding the science, methodology and terminology used by scientists and clinicians from different disciplines, you will learn to communicate effectively in a multidisciplinary environment, critically evaluate a wide range of scientific data and research strategies and learn how to make a significant contribution to cancer research and treatment.

➤ *Glasgow's research in Cancer Studies has been rated in the UK top five and best in Scotland.*

➤ *The Institute of Cancer Sciences is a major component of the Cancer Research UK West of Scotland Cancer Centre.*

➤ *The Institute is a partner with the Beatson Institute for Cancer Research (BICR), which together form the core of cancer research in Glasgow.*

## Programme overview

We will lead you through the molecular and cellular hallmarks of cancer biology and metastasis formation, including genetic instability, cancer growth and invasion, tumour epithelial-stromal interactions, cancer immune response, cancer metabolism, and cancer stem cells, and explain how this knowledge is being used in our fight against cancer in our clinics by providing personalised cancer treatment. The programme will allow you to specialize either on the molecular aspects of cancer science, including genome wide data analysis for the characterization and classification of cancers, or learn about cutting edge translational cancer research, and introduce you to drug discovery pipelines and clinical trials.

## Career prospects

This programme is designed for students with undergraduate degrees in the life sciences, scientists working in the pharmaceutical and biotechnology industries, and clinicians and other healthcare professionals.

Career destinations: PhD or further medical studies; those wishing to work in the health services sector; and those interested in working in the life sciences, biotechnology or pharmaceutical industries, including contract research organisations (CROs).

## Academic entry requirements

A degree in the Biochemistry, Biotechnology, Medicine or other relevant biological/biomedical sciences (at least a 2:2 Honours Degree or equivalent). Alternative qualifications will also be considered on a case-by-case basis.

An IELTS score of at least 6.5 with a minimum score of 6.0 in each component (or equivalent qualification) is required for students who do not have English as their first language.

## Programme Structure

**Semester 1:** A core course of **integrated** basic molecular and clinical cancer science. You will attend lectures, seminars and tutorials and take part in practical classes, journal clubs, presentations, and self-directed learning.

**Semester 2:** You will be able to specialize by **choosing** several courses from a range of **Options** including: *Frontiers in Cancer Research*, *'Omics' Technologies*, *Drug Discovery*, *Clinical Trials*, *Diagnostic Technologies and Devices*, *Business and Bioscience* and *Current Trends in Biomedical Research*. A course in *Research Project Design* will finally prepare you for your research project.

**Summer:** You will undertake a 14-week long wet or dry **Research Project** under the supervision of one of the academics or clinicians within the Institute of Cancer Sciences in the University of Glasgow. You will experience how to plan and write a project proposal and report, and how to research, evaluate, and critically discuss scientific data and present these to a wider audience. This will allow you to gain in-depth knowledge in a cancer-related area of your interest.



## How to apply

We expect a high level of demand for this programme and we are taking expressions of interest now before it becomes live in our online application form, please contact

**Anne.Best@glasgow.ac.uk** to register your interest.

### Programme directors:

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