Postgraduate Newsletter
December 2021
Welcome

A warm welcome to the first of our bi-monthly newsletters, designed to introduce you to your new Faculty, department and programme.

In Autumn 2022, you will join the Faculty of Health and Medicine, the newest and smallest of the four Faculties that make up Lancaster University. It comprises the Division of Biomedical and Life Sciences, the Division of Health Research, and Lancaster Medical School, as well as the new Health Innovation Campus that seeks to engage with and empower local health and care related businesses.

The Faculty is multi-disciplinary and is a local, national and international leader in biomedical and health research, with particular specialisms in palliative care, mental health and health policy research, medical statistics and health data science. Its research is rated REF Gold for impact and intensity and it is the holder of an Athena Swan Silver Award.

We are highly regarded around the world and our research-intensive academics sit on Governmental and NGO advisory panels, and research centres like the International Observatory on End-of-life Care, and the Centre for Ageing Research are internationally respected leaders in their respective fields.

We will send you a newsletter every 2 months in the lead up to you joining us in Autumn 2022 and in this month’s issue, we are focusing on our Bioscience postgraduate programmes.

Find out more

You can find out more about the Faculty of Health and Medicine and your new division on our website.

Fees and funding information is available on the University website.

If you have any questions, please do not hesitate to get in touch with us.

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Connect with us

Twitter:
Division of Biomedical and Life Sciences: @BLSpaiscatteruni
Division of Health Research: @LancsDHR
Lancaster Medical School: @LancasterMedSch

Instagram: @lancasteruninfhm
Your new Department

As a Master’s student on the MSc Biomedicine or MSc by Research Biomedical Sciences, your new home will be the Division of Biomedical and Life Sciences. Here, you will be taught by and have the opportunity to work alongside our researchers, who are renowned experts at the forefront of their fields, helping to develop our understanding of disease and advance our ability to treat disease effectively or even eradicate it entirely.

Our researchers are well-connected and collaborate with researchers across the University, national and global partners, businesses, governments and non-governmental organisations, to make a real difference in our Division’s core research areas:

+ Ageing and Neuroscience
+ Cancer Biology and Genome Stability
+ Microbes, Pathogens and Immunity

Every member of staff here in the Division of Biomedical and Life Sciences is friendly and ready to support you every step of the way. We’ll now introduce you to the academic team that delivers your programme.

Dr Neil Dawson
Director of Studies Msc Biomedicine

Hello. I am the Director of Studies for our MSc Biomedicine programme and I support all our students throughout their undertaking of the programme.

I teach on the module “Fundamental Research Skills in Biomedicine”, where I introduce practical skills in Bioinformatics and Scientific Poster presentations. I regularly supervise MSc students undertaking research projects in my laboratory, and some of the results from these projects have been published in scientific journals.

My research is interested in understanding how genetic risk factors for neurodevelopmental disorders, such as Autism and Schizophrenia, impact on the brain. I am also interested in understanding the neurobiology of neurodegenerative disorders, such as Alzheimer’s Diseases. A key focus of my research is focused on developing new drugs to treat the cognitive symptoms experienced by people with these disorders. This is particularly important, as the cognitive symptoms predict the quality of life for people with these disorders and we currently lack drugs to treat these symptoms.
Meet the team

Dr Andrew Fielding
MSc Biomedicine Admissions

I am the academic lead for admissions to our MSc Biomedicine. I am also a cancer researcher, with interests in identifying and understanding cancer-cell specific dependencies in aggressive cancer types and developing novel therapeutics to target these. I am particularly interested in cancer-specific features of mitosis, such as centrosome amplification in triple-negative breast cancer and uveal melanoma.

Previous MSc Biomedicine projects I have supervised include:

+ Utilising targeted degradation of centrosome clustering proteins as a way to induce cancer-specific effects on cell growth
+ Developing and using cell-cycle biosensors to understand cancer cell proliferation
+ Studying meiotic proteins required for cancer cell survival

Dr Nikki Copeland
Module Lead on “Molecular Basis of Cancer”

Dr Nikki Copeland is the module lead for “Molecular Basis of Cancer”.

Research interests

I am the module lead on the ‘Molecular Basis of Cancer’. This aligns closely with my research interests that aim to understand how deregulation of the cell cycle lead to tumorigenesis. Master’s Projects that run in my lab work towards understanding the signaling networks that control the levels of a potential tumor biomarker called CIZ1. CIZ1 is often overexpressed in cancer cells and this is associated with poor prognostic outcomes. It is hoped the reductions in CIZ1 levels may reverse this effect and this is supported by xenograft tumour models.

Previous projects I have supervised include:

+ The potential for CIZ1 as a prognostic biomarker
+ Reducing CIZ1 levels and determine the effect on cell cycle progression, cellular proliferation and cell viability
Meet the team

Dr John Worthington
Module Lead on “Emerging Therapeutics in Immunology”

I teach on the modules ‘Microbes and Disease’ and ‘Models of Disease’. I am also the module lead for ‘Emerging Therapeutics in Immunology’ which teaches the human immune system, human immunological disorders in depth and the application of cutting-edge immunological research to biomedical science and clinical practice. This module will give you experience of advanced flow cytometry techniques and an insight into how scientific findings are reported and presented to the scientific community and media.

My research focuses on the role of interactions between our gut’s endocrine and immune systems and how these can play a role in harmful inflammation. In particular, I am interested to understand the mechanistic crosstalk between enteroendocrine and immune cells in order to identify key features of intestinal health which could be therapeutically targeted during disease.

Previous projects I have supervised include:

+ The effect of obesity on susceptibility to nematode infection
+ Repurposing current drugs for use as antihelminthics

Dr Bob Lauder
Module Lead on ‘Fundamental Skills in Biomedicine’

Dr Bob Lauder is the module lead on ‘Fundamental Skills in Biomedicine’. Topics this module covers include; review of Biomedical skills, communication skills, gene cloning and molecular biology, bioinformatics and cell biology.

Research interests

My research is focused on markers of long-term joint disease and dysfunction arising from damage and ageing. Joints, especially the knee, can be subject to damage which is more common in some athletes as a consequence of injury. However, while some injuries can be resolved, others can lead to osteoarthritis up to 20-years after the injury; my research has been to identify those at risk of this long-term pathology.
Alumni Q&A

We caught up with Noor, who recently graduated from our MSc Biomedicine, to find out about her experience on the programme.

Hi Noor, please can you tell us a little about yourself?
Ever since I was young, I’ve had a particular interest in the biology of how humans function. As I progressed through my primary and secondary education, my fascination and curiosity increased which is why I chose to study BSc Biomedical Sciences at Lancaster. The BSc really developed my knowledge and interest in areas like immunology and neurobiology and so I decided to further my education with an MSc in Biomedicine. I graduated this year and am now a Life Sciences Delegate Acquisition Executive for a scientific conference company in London.

You could have chosen anywhere for your Master’s, why did you choose Lancaster?
The passion of the Division of Biomedical and Life Science’s world leading academics when teaching inspired me to want to take my learning further. It was also comforting to know that I would be taught by academics with whom I already had good relationships and knew would provide excellent quality teaching and support at a time when most learning would have to be online due to Covid restrictions.

What has been your top highlight of the programme?
I thoroughly enjoyed all aspects of the course, however, one particular module that stood out was “Microbes and Disease”. The module was led by Dr Muhammad Munir who is a leading virologist and is currently working on SARS-CoV-2, which allowed us to gain knowledge regarding the pandemic and the scientific developments surrounding the virus first-hand from an expert in the space. We were also able to be a part of a published scientific review paper regarding the SARS-CoV-2 virus, which itself was an exciting achievement.

What did a typical day in your life studying for your Master’s look like?
A typical day in my life as an MSc student consisted of a few hours of taught classes and some time dedicated to independent learning. For each module, we’d have at least one weekly workshop and two lectures which allowed sufficient time for personal research and assignments.

What advice would you give to someone considering studying this programme?
My advice to someone considering this programme would be that if you enjoy biomedical sciences as a whole and would like to improve your education in the same field, this course would be a great fit for you. I know it was for me.