

PhD Studentship: The development of broad-spectrum antivirals against coronaviruses using a multidisciplinary approach

Project description

The current COVID-19 pandemic has highlighted the need for broad-spectrum antivirals, which can be deployed rapidly against coronaviruses and future emerging viruses. In this project, the successful candidate will work within a multidisciplinary team to identify and develop antiviral compounds against coronaviruses.

The aims of this project will be to identify compounds from *Swertia chirayita* extracts that show antiviral properties against model human coronaviruses and investigate their mechanism of action using a combination of molecular biology and cell biology techniques. The project will also investigate structure-activity relationships of these compounds through chemical modifications to further improve their antiviral efficacy.

This project provides a unique opportunity to work at the forefront of virology research, and make important contributions towards understanding the fundamental aspects of coronaviruses as well as have a positive impact on public health measures for infection control.

The successful candidate will be based in the [Leicester School of Pharmacy](#), with dedicated state-of-the-art facilities for undertaking the project.

Funding

DMU is offering a fully-funded 3-year PhD scholarship for this work, **commencing on 1st October 2021**. The stipend is pegged to the UKRI rate, currently at £15,609 per annum.

Lead Supervisor is [Dr Maitreyi Shivkumar](#) (maitreyi.shivkumar@dmu.ac.uk), and co-supervisor is [Dr Tim Snape](#) (tim.snape@dmu.ac.uk). Feel free to contact either supervisor for informal enquiries.

Applicants must:

- Possess a UK Honours degree in Biochemistry, Biomedical Sciences or related fields with at least an upper second class (or overseas equivalent), a Masters Degree in similar fields, or an academic or professional qualification plus experience in their sector or industry.
- Have an interest in chemistry and drug design.
- Demonstrate the ability to clearly communicate complex ideas to a variety of audiences.
- Be self-motivated and able to work independently and with a team.
- Demonstrate competence in the use of the English language. Please see section 5b [here](#) for further details on meeting our English language entry criteria.

How to apply

Please go to the [scholarships page](#) which outlines the 2-stage process for applying for these scholarships.