



PhD Studentship: Discovering new drug targets in the Sphingolipid biosynthesis pathway of protozoan parasites

Durham University, Department of Chemistry/ Department of Bioscience

Duration: 39 months

Stipend: £14,777 per annum

Hours: Full time

Applications welcome from: UK and International students

Starting: October 2019

Closing date: Applications will remain open until a suitable candidate is appointed

Project Supervisors: Dr. Ehmke Pohl, Dr. Paul Denny

Project Description

Protozoan parasites are a diverse group of pathogens responsible for diseases ranging from Malaria (*Plasmodium spp.*) and Toxoplasmosis (*Toxoplasma gondii*) to the neglected tropical diseases leishmaniasis (*Leishmania spp.*) and Chagas disease (*Trypanosoma cruzi*). In spite of considerable efforts over the last decade, treatment options remain limited.

Recently, we have identified enzymes involved in the sphingolipid biosynthesis as potential novel drug targets (Norcliffe et al. *Sci Rep* 2018; 8: 3938; Mina JG, et al. *J Biol Chem* 2017; 292(29):12208-12219.). The aim of this project is to characterize these enzymes from different species by biochemical, biophysical and structural methods, ranging from X-ray crystallography to small angle X-ray scattering and Cryo-Electron Microscopy.

The successful candidate will be based in Durham, with opportunities for placement with our GCRF partners in Kolkata and/or Rio de Janeiro.

Keywords – structural biology, chemical biology, neglected tropical diseases

Eligibility

Applicants require an undergraduate degree at a 2:1 honours level or above (or equivalent) in a discipline directly relevant to the research areas of chemistry and biology. The position is open to both UK and International students.

Applications

Interested applicants should send a CV (no longer than 2 pages, and should include the contact details of 2 references) and a short cover letter to Dr. Ehmke Pohl (Ehmke.pohl@durham.ac.uk), or on twitter @ehmke_pohl