



PhD Studentship: New chemical tools to identify and validate drug targets in leishmania and related 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: n/a

Project Supervisor: Prof. Patrick Steel

Project Description

This project will design, synthesise and apply new small molecule probes to enable an exploration of the druggable protein in *Leishmania* and related protozoan parasites (*Trypanosoma cruzi* & *Trypanosoma brucei*). These new compounds will either possess latent reactivity allowing them to be used as activity based enzyme (activated) labelling agents, as probes for post-translation modification related to parasite viability, or as switches for protein degradation with a view to isolating and characterising new and exciting targets.

The project will involve organic synthesis, molecular parasitology, structural biology and molecular biology techniques. It is not expected that you will have experience of all these activities prior to commencing their studies, but a willingness to learn these and other new techniques is essential.

Keywords – organic synthesis, chemical biology, chemical probes, 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 referees) and a short cover letter to Prof. Patrick Steel (p.g.steel@durham.ac.uk)