Science and Technology in Medicine

Research Project Proforma (School of Medicine)

Research Title: **Keywords (up to 5)**	**Antimalarial drugs** **Malaria, pharmacodynamics, global health, cell culture, drug assays**
Supervisor: **Job Title:** **Department:** **Email Address:** **Telephone:** **Webpage link:**	Paul Horrocks Professor of Molecular Parasitology School of Medicine / Institute for Science and Technology in Medicine p.d.horrocks@keele.ac.uk appointments through email http://www.keele.ac.uk/istm/staff/paulhorrocks/
Type of projects offered (delete as appropriate)	Both and SSC

(1) Outline the broad aims of your research and its medical relevance (150 words):

Malaria poses significant health and socioeconomic challenges in regions where this disease is endemic. With the evolution of resistance to the current front line treatments, there is an urgent demand to discover novel chemotypes to address the future demand within the control and elimination arena. My team addresses this goal through the search for novel drugs (synthetic or natural product) and through a characterisation of key pharmacodynamics properties of these compounds. I am always keen to recruit keen medical students to work with me – whether for a vacation studentship (Wellcome

Trust/Nuffield/INSPIRE), an 8 week year 3 SSC placement or for postgraduate training on MSc and MPhil programmes.

My laboratory is based in the School of Life Sciences (Huxley Building) on the University Campus.

(2) Indicate the skills/techniques the student will learn (100 words)

Essentially you will learn to keep the parasites alive – and then how to kill them in a quantitative assay. Technical training in CatIII cell culture, liquid handling, fluorescent and bioluminescent assays will be provided. In addition, you will learn how to plan and execute experiments, the statistical methods for data analysis and presentation, written and oral presentation skills. In addition, you will be expected to develop an understanding of the epidemiology and aetiology of human malaria as well as the challenges to this disease's control and treatment. Our laboratory welcomes medical school students, providing them with a great research experience – just ask around!

Please submit this form electronically to Prof Divya Maitreyi Chari on d.chari@keele.ac.uk by 31 July 2015