Applications are invited for a PhD studentship starting in October 2019 to work with Prof. Emma Raven. The aim of the project is to design and build a sensor for quantification of heme concentrations in cells. This will involve the construction of fluorescently-labelled proteins which can bind heme under certain conditions; quantification (using spectroscopy/imaging) of this heme binding will be used to build heme sensors under a range of heme concentrations using different protein scaffolds.

The project will involve training and use of the following methods: enzyme kinetics, various spectroscopies (uv-visible, EPR), X-ray crystallography, and protein expression. No extensive prior experience of these methods is required, merely an ability and enthusiasm to apply chemical/biophysical principles to the study of metalloproteins. The project is a collaboration with Dr Andrew Hudson, University of Leicester (https://www2.le.ac.uk/departments/chemistry/people/academic-staff/andrew_j_hudson) and it will involve working with the Wolfson Bioimaging Centre in Bristol (http://www.bristol.ac.uk/wolfson-bioimaging/).

The student will join the Raven group in Bristol, which are hosted in brand new laboratories in the School of Chemistry. The student will receive a wide-ranging, interdisciplinary training in protein chemistry with particular focus on heme proteins, and will be invited to participate in other external-facing activities (conferences, seminars) as part of the overall Raven group activities in this country and internationally.

Candidate Requirements

Applicants must have obtained, or be about to obtain, a First or Upper Second Class UK first degree, or the equivalent qualifications gained outside the UK, in chemistry or in a related discipline (biochemistry, biological sciences, biophysics).

How to Apply

Please make an online application for this project at http://www.bris.ac.uk/pg-howtoapply. Please select Chemistry (PhD) on the Programme Choice page. You will be prompted to enter details of the studentship in the Funding and Research Details sections of the form.

Funding

A full studentship will cover UK/EU tuition fees, a training support fee and a stipend (£14,777 p.a. for 2018/19, updated each year) for 3 years and 6 months.
Applicants who are classed as Overseas for tuition fee purposes may be considered if they can supply the difference between UK/EU and Overseas fees.

Getting in Contact

We encourage you to make an informal enquiry to Prof Emma Raven (emma.raven@bristol.ac.uk) if you have any queries or would like to discuss projects.

References

See for example the following papers for a broad introduction to the work of the Raven group.


