

PhD Studentship starting Oct 2018/19: Computational Biophysics

University of Bath - Department of Chemistry

Qualification type: PhD

Location: Bath

Funding for: UK Students, EU Students

Funding amount: £14,553 tax-free maintenance payment (2017-8 rate), full Home/EU tuition fees, and an annual Training Support Fee of £1,000, for up to 3.5 years.

Hours: Full Time

Supervisor name: Prof Carmen Domene (C.Domene@bath.ac.uk)

A PhD studentship is available under the supervision of Prof Carmen Domene at the Department of Chemistry, University of Bath, UK. The project involves the development and application of first principles and classical molecular dynamics simulations as well as enhanced sampling techniques and free energy methods and Markov-based analysis methods to the study of ion channels. Transport of ions across cell membranes is at the heart of many of life's processes and ion channels are used by the cell to transport ions across membranes. A crucial question in understanding their function is how the protein domains involved in sensing stimuli and opening the pore communicate, or how small molecules or physical stimuli activate these proteins. These are some of the questions that will be studied under this project in close collaboration with experimental labs overseas.

Highly motivated students with a Chemistry, Biochemistry or Physics degree are strongly encouraged to apply for this post. Due to funding restrictions only UK or EU citizen are eligible to apply. The candidate should have, or be about to receive, an honours degree (at least 2.1 or equivalent) in Physics, Chemistry or a related subject. Good knowledge in quantum mechanics and statistical mechanics is expected and interest in writing computer code and shell scripts is an advantage. Some experience with molecular simulation is desirable, but not essential. The studentship will cover all university fees and includes funds for maintenance at the standard EPSRC rate. The studentship will start 25th September 2018.

To Apply:

Applications should include (i) a motivation statement (250 words max) briefly describing any previous research projects you worked on and why you would like to apply for this post (ii) a CV (2 pages max) including publications (if any) (iii) transcripts of undergraduate (Bachelor) and graduate (Master) studies (iv) names, contact details and email addresses of 2 referees. Please send these four application documents as a single zip file to Prof Carmen Domene, C.Domene@bath.ac.uk specifying in the subject line 'PhD application - Surname_of _Candidate'. Candidates are advised to apply as early as possible as the selection process will commence immediately and continue until a suitable applicant is found.

For additional information, applicants should contact Prof Carmen Domene.

Preferred start date: 25th September 2018.

Application Deadline: Until vacancy is filled.