



PhD scholarship: Data analysis for the 3D structure of the DNA– to start October 2018

Background

The School of Biological Sciences and Department of Mathematical Sciences at the University of Essex are pleased to announce a PhD studentship available in “Data analysis for the 3D structure of the DNA”.

This studentship will start from October 2018 and once awarded, you'll receive the scholarship for three years of your PhD (subject to satisfactory progression).

The studentship includes:

A fee waiver equal to the Home/EU fee (for 2017/18, £4,120). International students will need to pay the balance of their fees.

A stipend equivalent to the Research Councils UK National Minimum Doctoral Stipend (£14,553 in 2017-18)

It is now becoming possible to obtain information about the 3D organisation of the DNA using modern techniques that use a cross-linker to capture bits of DNA in close proximity. Recent developments have allowed us to push the boundaries of the resolutions of these maps to subkilobase and these types of experiments are currently being carried out in Dr Zabet's lab as part of a Wellcome Trust funded project. The aim of the PhD project is to design and develop new statistical models to analyse the 3D structure of the DNA using new data generated by Hi-C experiments. Using these methods, we expect to unveil the functional role of the 3D structure of the DNA and its role in complex diseases, such as cancer.

The successful applicant will be supervised by Dr Radu Zabet, Dr Hongsheng Dai and Dr Andrew Harrison.

Deadline: Applications to be submitted by Tuesday 3rd April 2018.

Additional questions and queries about the studentship to be addressed to:
Dr Radu Zabet nzabet@essex.ac.uk

Entry Requirements

The successful candidate will have a good honours BSc, BEng, MSc degree in mathematics, computer science, electronic engineering, computer engineering, or related subjects and will meet the English Language requirements of University. Strong analytical and mathematical skills are required, as well as good programming skills. Outstanding biology graduates with proven bioinformatics skills are also encouraged to apply. Knowledge of bioinformatics and basic understanding of biology are desirable but not essential.