We welcome applications for a funded PhD position in the Biocomputation Research Group at the University of Hertfordshire. The successful applicant will work on a project related to the detailed modelling of neuronal dynamics arising through dendritic processing and/or the analysis of morphological and circuit data. Potential projects in the fields of neuroinformatics and computational neuroscience include (but are not limited to):

- Analysis of neuronal morphology and micro-circuitry.
- Simulation of development of neuronal morphologies and tissues.
- Simulation of dendritic processing on hardware.
- Sensory processing and behaviour generation in individual invertebrate neurons.
- Development of experimental robot controllers based on dendritic computation.
- Structural plasticity at the single neuron and micro-circuitry level.

More project ideas can be found here: http://www.dendrites.club/Positions.html

The successful candidate will have extensive programming experience, preferably in Python (and/or other programming languages depending on the precise project). Depending on the project, experience with parallel programming (MPI, ZMQ) and meshing software (VTK, CGAL, ITK, ...), or statistical analysis in R or Python are an advantage. In addition, we greatly value curiosity and a personal motivation to find out how things work.

We collaborate closely with leading experimentalists and theoreticians all over the world, such as Prof. Adrian Moore (RIKEN, Japan), Prof. Erik De Schutter (OIST, Japan) and Dr. Marylka Uusisaari (Erasmus Medical Center Rotterdam, The Netherlands).

The student will be based in the Biocomputation Group (biocomputation.herts.ac.uk) at the University of Hertfordshire and will be supervised by Drs. Ben Torben-Nielsen and Volker Steuber to whom informal enquiries can be sent.

Successful candidates are eligible for a research studentship award from the University (approximately GBP 14,250 per annum bursary plus the payment of the student fees). Application forms can be obtained from Mrs Lorraine Nicholls, Research Student Administrator, STRI, University of Hertfordshire, College Lane, Hatfield, Herts, AL10 9AB, Tel: 01707 286083, l.nicholls @ herts.ac.uk. The short-listing process will begin on 30 May 2016.