

**Postdoctoral Research Associate in Computational Biology –
*Computational tools for interactive and immersive multi-cellular design***

Applications are invited for a Postdoctoral Research Associate (PDRA) position based in the School of Biological Sciences at the University of Bristol, UK. The successful candidate will join the Biocompute Lab (www.biocomputelab.org) and BrisSynBio (www.bristol.ac.uk/brissynbio), a BBSRC/EPSRC funded Synthetic Biology Research Centre. They will also work closely with the newly formed Virtual Reality for Synthetic Biology Laboratory at the University of Bristol.

The PDRA's main role will be to lead the development of a new computational framework to enable interactive simulations of huge growing and evolving multi-cellular systems that can be observed and manipulated in virtual reality (VR). To make this possible, the agent-based simulations produced will exploit existing general-purpose physics engines to tap into the vast computational resources contained within modern computers, e.g. multi-core processors and highly-parallel graphics processing units (GPUs). This project will open completely new avenues for the rational engineering of multi-cellular biological systems. To explore the potential impact and establish this new research direction it is expected that the PDRA's research will extend to include: engagement with the public through outreach sessions in local schools, organization of an international agent-based modelling in bioengineering meeting (funding already secured), and to contribute to grant applications and develop fellowship proposals of their own to grow this research long-term.

Candidates should hold an undergraduate degree and PhD in a discipline relevant to high-performance computing (e.g., computer science, engineering, physics, mathematics, or a related subject), have a strong interest in biological systems and high-performance computing/simulation, and a proven track record of developing scalable and reusable code. They will also need to be highly motivated, collaborative, an excellent communicator, and have a desire to learn new skills and work within a diverse interdisciplinary team.

Online applications can be made at: <http://goo.gl/1MD7xD>

The deadline for applications is the 28th February 2018 and interviews are planned to take place late the following week. The position is scheduled to start on the 1st May 2018 (although earlier start dates may be possible) and will initially run for 14 months.

For further information or informal enquires please contact Dr Thomas Gorochofski (thomas.gorochofski@bristol.ac.uk)