Up to 4 PhD Positions in Macromolecular Cryoprotectants

Professor Matthew Gibson

**PhD project:** New Materials to Transport Biologic Therapies

**Supervisor:** Professor Matthew Gibson

**Funding availability:** Fully Funded

**Deadline:** Until filled

**Project description:**
The GibsonGroup ([www.warwick.ac.uk/go/gibsongroup](http://www.warwick.ac.uk/go/gibsongroup)) has pioneered the study and application of polymer materials which can reproduce the function of antifreeze proteins (AFPs) (Nature Communications, 2017, 1546). We have recently received €2M of funding to explore how these materials can be used to store biologics—cell and protein-based therapies. Biologics are capable of producing complex therapeutic effects but are expensive to produce and challenging to store; put simply the cells and proteins require freezing (or cooling) but the cryoprotectants themselves can cause damage. We will explore how synthetic polymer materials can be used to stabilize biologics and make real impact in this huge area of pharmaceutical science. There will be opportunities for synthetic chemistry, cell biologists and microbiologists. The GibsonGroup had dedicated labs (see webpage) for each of these, providing a truly multidisciplinary environment.

**Requirements:**
Applicants should have an honors degree (at least II.1 or equivalent) in chemistry, cell biology, microbiology or other relevant discipline. Eligibility requirements may be in places, as this is funded from EU sources. Please discuss with Professor Gibson.

**How to apply:**
Please direct informal enquiries, including a 2 page (Max) CV and requests for further information to Professor Gibson  m.i.gibson@warwick.ac.uk

Details on the formal application procedure can be found at [http://www.go.warwick.ac.uk/pgapply](http://www.go.warwick.ac.uk/pgapply)