Department of Chemistry

Fully Funded PhD Studentship

Prof. Matthew I. Gibson

PhD project: Biophysical Studies of Protein-Glyconanoparticle Interactions
Supervisors: Prof. Matthew I. Gibson
Funding availability: Fully Funded for 3 years - Marie Curie Mobility rules apply
Deadline: Until Filled (to Start March 2019 or as close as possible)

Project description:
The GibsonGroup has a vacancy for an ambitious PhD student with a background in biology, biochemistry or synthetic biology, to join a large EU consortium (NanoCarb). The aim of the project is to develop new carbohydrate (glycan) functionalised nanoparticles and to evaluate their biological properties; from protein binding to their potential for disease targeting. The PhD will involve the recombinant expression (in bacterial and mammalian cell lines) of human-disease relevant lectins and the biophysical analysis of their interactions with carbohydrates (glycans). A wide range of bioanalytical methods including ITC, biolayer interferometry and SPR will be employed. See some of our recent papers for background; ACS MacroLetters 2018, 7, 178; Nanoscale Horizons, 2017, 2, 106; J. Mater. Chem. B., 2016, 4, 3046. Full training will be provided in the relevant skills and you will be actively encouraged to present your results at conferences and symposia.

The GibsonGroup is jointly between the Department of Chemistry and Warwick Medical School, providing world-class facilities and environment for cutting-edge biomaterials science. We have five laboratories for synthetic, analytical, cell biology and synthetic biology/microbiology, and the successful candidate will sit within a large multidisciplinary team (see www.warwick.ac.uk/go/gibsongroup)

Requirements:
Good degree (2.1 or 1st class) in biochemistry, synthetic biology or related subject. Must be willing to engage in interdisciplinary research as part of a diverse team of chemists and biologists.

Specific Eligibility Criteria valid at time of recruitment on the H2020 Marie Sklodowska Curie programme: The applicants should be within the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. The applicants should not have resided or carried out main activity (studies, work, etc.) in UK for more than 12 months in the 3 years prior to the recruitment date. The successful applicant will receive an attractive salary in accordance with the MSCA regulations for Early Stage Researchers http://ec.europa.eu/research/mariecurieactions/.

How to apply:
In the first instance please contact Prof. Matthew I. Gibson by email at m.i.gibson@warwick.ac.uk. Include in your email a CV and your current/predicted grades. Details on how to apply formally can be found at http://www.go.warwick.ac.uk/pgapply.