

## PhD Studentship in the Physical Stability of Therapeutic Peptides at The University of Cambridge

A fully-funded 4-year PhD studentship is available at The University of Cambridge, in the Department of Chemistry in the group of Dr Sophie Jackson. The student will be enrolled in the Centre for Doctoral Training in Sensor Technologies and Applications (<http://cdt.sensors.cam.ac.uk>). The first year involves a highly interdisciplinary programme consisting of lectures, practicals and research projects covering a wide range of technologies and applications in sensing and imaging. Successful completion of the first year will lead to a Master of Research qualification (MRes) and optimal preparation for the PhD project in years 2-4.

We are seeking a highly motivated PhD student with a strong academic background in natural sciences and an interest in biophysical methods to study the physical stability of therapeutic peptides. The successful applicant will be undertaking research in partnership with a leading drug discovery company based in Cambridge - MedImmune Limited (the biopharmaceutical subsidiary of AstraZeneca).

This PhD project will focus on studying the chemical and organic impurities arising during MEDI0382 Drug Substance (DS) and Drug Product (DP) manufacture under different process conditions exploring the relationship between these impurities and the physical stability of the peptide. The aim will be to gain a better understanding of the mechanisms underlying gel and fibril formation and how this relates to the different processing conditions. We will aim to identify predictors of early fibril formation and physical instability in the formulated Drug Product. To identify predictors of early fibril formation leading to physical instability in synthetic peptide formulations. The project will use a wide range of biophysical techniques with particular focus on mass spectrometry and solid-state NMR.

The successful candidate must:

1. Be highly motivated and able to work independently.
2. Have an excellent academic basis in physics/chemistry/biochemistry or a related subject. The project will be interdisciplinary with emphasis on physical methods to study peptide purity, structure and aggregation.
4. Have excellent communication and interpersonal skills to facilitate collaborative work.
5. Obtain (or be about to obtain) a First Class or high 2.1 degree in a relevant field from a UK institution or the equivalent from a non-UK university. (If you hold a non-UK degree, please see: <http://www.graduate.study.cam.ac.uk/international-students/international-qualifications> to determine if your final grade/mark

will satisfy that requirement).

6. The standing needed to meet the graduate admissions entrance requirements of the University of Cambridge, as the successful candidate will be expected to formally apply for admission: <http://www.admin.cam.ac.uk/students/gradadmissions/prospec/studying/entryreq/>

The studentship is to start in October 2017.

For informal enquiries please contact Dr Sophie Jackson ([sej13@cam.ac.uk](mailto:sej13@cam.ac.uk))

The deadline for applications is [four weeks from advertisement date - please amend before sending out].

To apply for this position please email Emma Lee ([ell36@cam.ac.uk](mailto:ell36@cam.ac.uk)) with the following:

1. Cover letter.
2. CV.
3. Academic transcripts from all previous degrees.
4. Contact details for at least two academic referees.