

Applications are invited for a PhD studentship for the following project:

Polypeptide hybrid materials for 3D printing applications in tissue engineering

The position will be based within the Polymer Chemistry Group (Prof. Heise) at the Royal College of Surgeons in Ireland (RCSI) within the Advanced Materials and Bioengineering Research Centre (AMBER) centre.

The aim of the project is the development of a new class of biomaterials based on synthetic polypeptides. We have previously for the first time developed 3D printable polypeptides and demonstrated their excellent biocompatibility. In order to further advance these materials and include desirable biomaterial properties such as antimicrobial and cell binding properties, hybrid system will be explored by incorporation functional polymers into the polypeptides. This project has a strong synthetic polymer chemistry approach but will also use methodologies of biomaterial science as well as 3D printing and tissue engineering (through collaborations). Strong expertise in organic chemistry and/or polymer chemistry will be required for this project as well as the ability to work in interdisciplinary groups.

The ideal applicants will have a First Class Honours Bachelor's degree in Chemistry or Polymer Chemistry. Previous experience in the field of biomaterials would be advantageous but not essential. Specific skills that would enhance a candidate's application for the position might include experience in some of the following areas: 3D printing; mechanical testing of materials; advanced microscopy.

The researcher will work closely with other members of a multidisciplinary project team including PIs, postdoctoral and postgraduate researchers within the Polymer Chemistry & AMBER research cluster. Excellent written and oral communication skills are essential.

How to apply:

CVs with the names and addresses of three referees should be submitted to:

Prof Andreas Heise (andreasheise@rcsi.ie); use subject line "AMBER PhD 2020"

Positions will remain opened until filled but preferred start date is *September 2 2020*. Only short-listed applications will be acknowledged.

This position is funded by AMBER, SFI Research Centre for Advanced Materials and BioEngineering Research & CRANN Institute. The AMBER research centre, as a community of researchers, welcomes its responsibility to provide equal opportunities for all. We are actively seeking diversity in our research teams and particularly encourage applications from underrepresented groups.