**PhD Scholarship Advertisement**

Fully Funded PhD Scholarship in Advancing Bio-Inspired Materials for Enhanced Bone Repair and Regeneration

College of Science and Engineering / School of Biological and Chemical Sciences / Chemistry

Application(s) are invited from suitably qualified candidates for full-time funded PhD scholarship(s) starting in September 2024 affiliated to the College of Science and Engineering / School of Biological and Chemical Sciences / Chemistry at the University of Galway.

**University of Galway**

Located in the vibrant cultural city of Galway in the west of Ireland, the University of Galway has a distinguished reputation for teaching and [research excellence](https://www.universityofgalway.ie/our-research/)

For information on moving to Ireland please see [www.euraxess.ie](http://www.euraxess.ie)

**Detailed Project Description** Progress has been made in developing materials that mimic natural bone, but perfecting a method to replicate bone's complex structure on a large scale remains a challenge. Recent advances in collagen processing offer promising opportunities. These methods allow for the creation of collagen-based frameworks with detailed designs, using natural collagen without artificial binders. This innovation could significantly enhance the development of materials that mimic bone for medical uses.

The new role involves developing a novel mineralization strategy. This entails creating bone-like materials that match the size and mineral content of natural bone and include features that make them even more bone-like. These materials will undergo tests to determine if they can improve bone regeneration, potentially leading to new medical treatments.

This opportunity offers a chance to contribute to significant research in biomaterials, with potential implications for improving treatments for bone injuries and diseases.

**Living allowance (Stipend):** €22,000 per annum (€1,833 per month).

**University fees**: Fees are waived by the College.

**Start date**: September, 2024

**Academic Entry Requirements:**

**Preferred Qualifications for the Candidate:**

**- Educational Background:** A Bachelor of Science (BSc) degree in Chemistry is required. However, preference will be given to candidates holding a Master’s degree (MSc or equivalent) in Chemistry or Materials Science.

**- Research Experience:** Applicants should have prior research experience, particularly in inorganic chemistry or materials chemistry.

**- Technical Skills:** It is highly desirable for the candidate to have experience in one or more of the following techniques: electron imaging techniques such as Scanning Electron Microscopy (SEM), Transmission Electron Microscopy (TEM); Nuclear Magnetic Resonance (NMR) spectroscopy; Vibrational spectroscopy techniques including Fourier-Transform Infrared (FT-IR) spectroscopy or Raman spectroscopy.

**To Apply for the Scholarship:** Interested applicants are invited to submit their application materials to Dr. Stan Von Euw at stanislas.voneuw@universityofgalway.ie. Please compile the following items into a single PDF document:a current CV;a brief personal statement detailing your motivation and relevant technical skills related to the project and thecontact information for two references.

**Contact Name:** Dr. Stan Von Euw

**Contact Email:** stanislas.voneuw@universityofgalway.ie

**Application Deadline:** 30/06/2024and time [12:00] (Irish time 24hr format)

**Primary Supervisor name** : Stan Von Euw