



Position Title	PhD Studentship in SoDHA (solution deposit of Hydroxyapatite)
Project Abstract	<p>This proposal details the investigation of the incorporation of additives to solution deposited hydroxyapatite (SoDHA) coatings for orthopaedic implants, to promote appositional bone growth and to discourage bacterial growth. The main reason for the failure of orthopaedic implants are poor fixation and infection. By increasing the appositional bone growth, the fixation of implants will be improved. By discouraging bacterial growth the levels of infection will be reduced.</p> <p>The research will include the incorporation of anti-microbial ions and/or drugs that promote bone growth within and on the SoDHA coating. Characterisation of the coating will include morphological and chemical analysis, plus measurements of surface energy and bio-activity.</p> <p>The potential impact of success in this project would be the identification of a technology that would provide a clear improvement in joint replacement surgical outcomes. Patient lives would be improved by a reduction in revision surgeries and a longer lifetime of the orthopaedic implants.</p>
Experience	The PhD position is funded for 4 years, including a monthly stipend and materials and travel budget. Applicants should hold a minimum of an honours bachelor's degree at 2:1 level or equivalent in a relevant subject such as Chemistry/Materials Science/Engineering. Candidates should also have a strong interest in Biomaterials.
Funding	The studentship will cover fees up to €5,500 pa and a stipend of €18,500 pa
Location	TCD
Closing Date	Friday 29 th June 2018
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