Imperial College London
Department of Mechanical Engineering
PhD Studentship in Spine Biomechanics

Applications are invited for a research studentship in the field of spine biomechanics, leading to the award of a PhD degree. The post is supported by a bursary and fees (at the UK/EU student rate) provided by an EPSRC CASE conversion studentship with industry sponsorship. EPSRC candidates should fulfil the eligibility criteria for the award. Please check your suitability at the following web site:
http://www.epsrc.ac.uk/skills/students/help/Pages/eligibility.aspx

The research involves biomechanical assessment of a novel spinal surgery aimed at patients with low back pain. Currently, the most common spinal surgery for patients with low back pain is a fusion which involves rigid fixation of vertebra. Unfortunately, fusion surgery can lead to adjacent segment disease that can put the patient into more pain and discomfort. This provides an opportunity for novel surgical approaches, such as nucleus replacements (partial replacement of the intervertebral disc) to be developed. The aim of this PhD is to assess the biomechanical behaviour of the IVD following nucleus replacement surgery using both conventional, and novel approaches. The project will involve experimental assessment of the different surgical approaches, and investigate the effect the surgery has on the normal function of the intervertebral disc.

You will be an enthusiastic and self-motivated person who meets the academic requirements for enrolment for the PhD degree at Imperial College London. You will have a 2:1 degree or higher in mechanical engineering or a related subject, and an enquiring and rigorous approach to research together with a strong intellect and disciplined work habits. An interest in medical devices, good team-working, and observational and communication skills are essential.

To find out more about research at Imperial College London in this area, go to:
http://www3.imperial.ac.uk/mechanicalengineering

For information on how to apply, go to:
http://www.imperial.ac.uk/mechanical-engineering/study/phd/how-to-apply/

For further details of the post contact Dr Nic Newell n.newell09@imperial.ac.uk. Interested applicants should send an up-to-date curriculum vitae to Dr Newell. Suitable candidates will be required to complete an electronic application form at Imperial College London in order for their qualifications to be addressed by College Registry.

Closing date: 4th February
If shortlisted interviews will be held week commencing 11th February

Imperial Managers lead by example.

Committed to equality and valuing diversity. We are also an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Two Ticks Employer, and are working in partnership with GiRES to promote respect for trans people.