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## PhD Studentship in Bioengineering, University of Leicester, UK

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Improving understanding and treatment of AF via ablation: The frequency domain, objective measurements of fractionation and entropy

The Department of Engineering and the Department of Cardiovascular Sciences are pleased to offer this fully-funded studentship for October 2013 entry to the Doctor of



Philosophy (PhD) programme. The studentship will pay UK/EU tuition fees for three years and includes each year a stipend worth £13,726 and appropriate laboratory expenses.

#### **Research** Areas and Supervision

Atrial Fibrillation (AF) is a serious problem as it can lead to stroke and heart failure, with increased mortality. To further complicate the problem, the precise <u>electrical</u> mechanisms underlying AF are still, despite intensive research, not well understood (Fuster et al. 2006).

One effective treatment for AF is catheter ablation, whereby areas in the atria and/or nearby locations are targeted and ablated (or "burned") (Jais, Haissaguerre, et al. 1997, Kumagai et al. 2009). However, results are variable, with a number of patients requiring repeated procedures if AF recurs in the short term. Long term results are even less encouraging.

One of the main issues with ablation is the decision on where to ablate for maximum efficacy and safety. Improving understanding of the precise electrical mechanisms underlying AF is key to minimising the amount of "burning" with ablation and maximizing the gain. It is important that information is available to aid ablation decision and strategy either before or during the ablation procedure. It is also important that techniques and technologies to characterize and map candidate locations for ablation are developed up to the stage when they can be implemented in real-time.

Learn more – read the project description.

The successful applicant will be supervised by <u>Dr Fernando Schlindwein</u> and <u>Dr G Andre Ng</u>.

#### **Entry Requirements**

Applicants must have a first-class or high upper second-class honours <u>degree</u> (or equivalent qualification) in a relevant biological and/or <u>molecular</u> discipline and meet the University's standard <u>English language entry requirements</u>. It is desirable that applicants will have a relevant Masters degree or be able to show evidence that they will achieve this before October 2013.

This studentship is open to suitable UK/EU and International (i.e., outside the EU) applicants. Please note though that the award covers tuition fees at the UK/EU rate only. International applicants (and those not eligible to pay UK/EU tuition fees) must demonstrate at the time of their application that they can fund the difference in tuition fee rates.

The studentship is for full-time study only and applicants must be able to commence their studies in October 2013.

#### Informal Enquiries

Informal enquiries are welcome – please contact Dr Fernando Schlindwein:

- fss1@le.ac.uk
- +44 (0)116 252 5053

#### **Apply Now**

To apply, simply follow our three-point checklist:

- Draft a brief (up to 1,000 words) personal statement explaining why you would like to work in this area and describing any relevant research experience, including any research projects that you have undertaken – for example, as part of a previous degree – and listing any academic work you have published or which is currently in press awaiting publication
- 2. Prepare your supporting documents
- 3. Submit your online application or apply by post

The closing date for receipt of applications in **3 April 2013**. Applications that do not include a full personal statement and the required supporting documents will not be considered.

IMPORTANT – In the Fees and Financial Support section of the application, you must state that you wish to be considered for the "October 2013 Funded PhD Studentship in Bioengineering (Ref. Schlindwein)"

For more information please visit our website: http://scholarshipsbank.com/phd-studentship-in-bioengineering-university-of-leicester-uk/

Last updated: 27 March 2013