



PhD STUDENTSHIP – UK/EU

Closing date Wednesday 21 December 2011

Full studentship basis (fees plus stipend) for 36 month duration leading to a PhD qualification.

Applications not meeting the eligibility conditions will not be considered.

Innovation in forensic anatomical identification – combating the sexual exploitation of children

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Sponsored by ISEC, European Commission Directorate General Home Affairs.

Background. This project is interdisciplinary, combining anatomy and forensic human identification, by focussing on the assessment of variation in body regions that are frequently presented in offender images.

The aim of the full research proposal was to address innovative research potential which has been developed following high profile investigations into child sexual abuse. The basis of the work undertaken has a solid anatomical underpinning but the rigorous statistical interrogation of data and the strength of admissibility criteria require to be addressed before the full discriminatory capability of this approach can be realised prior to national and international testing, implementation and adoption.

This research will involve anatomical body mapping that is directed by aetiological intelligence. The project addresses three areas of human anatomy – the hand, male external genitalia and children's faces. This PhD opportunity relates only to the analysis of hands as the other PhD and PDRA vacancies have been filled.

Proposed research.

We have a unique opportunity to build on our pilot to achieve results which could have high impact for child sexual abuse investigations. The successful candidate will:

- Review large numbers of hand images from data sets already collected;
- Continue to augment and develop the hands database;
- Further develop an existing, bespoke map of the hand;
- Prepare a full descriptor of what will be recorded and how that will be achieved for each factor type available;
- Undertake quantitative research on the database to determine likelihood match ratios and discriminatory capacity of the approach;
- Assess the admissibility of the method developed;
- Upon completion of the project, assist in the determination of training level required;

- Prepare a training manual.

Challenges and extensions to this basic scheme include the reliable measurement of features of the hand in crime scene images, acquired in uncontrolled conditions and hence not directly comparable with images of suspects, and the creation of a statistically meaningful database within the study.

Candidate profile.

The ideal candidate will:

- have completed a first degree in anatomy with, at least, a global 2.1 grade (high B, or minimum of 65%); or experience or master-level degree in anatomy;
- they should have experience of full body dissection;
- have good initiative, be enthusiastic about research, and be prepared to work independently as well as within an inter-disciplinary research group;
- be prepared to collaborate with a department of anatomy under forensic guidelines;
- be able to maintain strict confidentiality with project data;
- have excellent written and oral communication skills.

Eligibility

Those without a background in gross anatomy at undergraduate or postgraduate degree level are not eligible for this studentship. Knowledge of multivariate statistics and biometric identification modalities would be advantageous.

How to apply

Submit details online to www.lifesci.dundee.ac.uk/phdprog/phdapplications under the section entitled 'Divisional PhD programme' and tick the box for Centre for Anatomy and Human Identification. Informal enquiries may be made to Professor Sue Black (s.m.black@dundee.ac.uk). The successful candidate must be available to commence the project as soon as possible after the interview process which will occur in January 2012.

The Centre for Anatomy and Human Identification (CAHID)

CAHID is a part of the College of Life Sciences. The blend of research focuses on the symbiotic duality of anatomy and forensic human identification. This Centre has many awards in recognition of the achievements of individuals and groups both in terms of research and learning and teaching. The Centre currently has 13 academic staff, 15 PhD students, 5 MSc students by research and approximately 450 undergraduate students in medicine, dentistry, anatomy and forensic anthropology. The Centre has an active forensic caseload that spans across the UK. Researchers currently hold an FP7 grant for development with INTERPOL and an EPSRC in relation to identity matters. Two DPMF grants are examining new aspects of clinical and surgical collaboration. The staff in the Centre have been responsible for training of the UK national Disaster Victim Identification team and in due course this will be rolled out to the international community. Staff have published 8 textbooks in the last 3 years, 25 chapters for textbooks and 36 peer reviewed publications. <http://www.lifesci.dundee.ac.uk/cahid>.

The University of Dundee

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the best university experiences.” (Sunday Times University Guide, 2010). We are also one of the world's top 200 universities (*Times Higher Education World University Rankings*, 2010) with much of our research described as 'world leading' or 'internationally excellent', according to the most recent Research Assessment Exercise (2008).

A £200-million campus redevelopment programme, including award-winning teaching accommodation, the prize-winning Queen Mother Building hosting the School of Computing, high-quality student housing, and major extensions to the library and Institute of Sport & Exercise, has recently been completed. City attractions, including a vibrant music scene, galleries, cinemas and theatre, are only a few minutes away. Dundee is big enough to have a great buzz about it (both on and off campus), yet small enough to be friendly and accessible. Dundee University Students Association (DUSA) is regarded as one of the best Students' Unions in the UK and was the 2010 runner-up in the Club Mirror Students' Union of the Year Award. www.dundee.ac.uk.