RESEARCH SUMMER PLACEMENTS 2019

The Faculty is offering a number of research summer placements in 2019. The internships are aimed at high calibre undergraduate students who are contemplating a career in research. A limited number of positions may be available for masters students. If you are considering doing a PhD after your degree, then participating in the scheme is a great way to gain some practical experience to undertake a piece of research with academic guidance.

<table>
<thead>
<tr>
<th>Duration and payment:</th>
<th>Each full time placement will pay a tax free stipend of £250 per week (£125 per week, part time) for up to 8 weeks. No additional expenses will be paid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dates:</td>
<td>Monday 3rd June 2019 to Friday 26th July.</td>
</tr>
<tr>
<td>Locations:</td>
<td>Cambridge and Chelmsford</td>
</tr>
<tr>
<td>Eligibility:</td>
<td>You must be registered on a full time programme of study, preferably within FHEMS, and have not taken part in the scheme before</td>
</tr>
<tr>
<td></td>
<td>Applicants will normally be in their penultimate year of study</td>
</tr>
<tr>
<td></td>
<td>Your registration with the University should not expire before the placement end date.</td>
</tr>
<tr>
<td></td>
<td>If you are a tier 4 student and have any working restrictions alongside your study time you will not be eligible to apply.</td>
</tr>
<tr>
<td>How to apply:</td>
<td>Application in each case is by CV with supporting letter and 1 academic referee via email to the project supervisor by 14:00 on Tuesday 7th May 2019. If you have not received a response within 2 weeks of the deadline you should assume that your application was unsuccessful.</td>
</tr>
</tbody>
</table>
The effectiveness of Helicopter Emergency Medical Services in reducing patient mortality and morbidity following critical illness and injury: A systematic literature review

Supervisors: Dr Sarah McLachlan and Dr Hilary Bungay

Placement type: Undergraduate/Masters student: Part time, 8 weeks, 2.5 days per week

Location: Chelmsford

Details: Helicopter Emergency Medical Services (HEMS) provide enhanced care to critically ill and injured patients in the pre-hospital setting. This care is often provided by a pre-hospital care doctor and critical care paramedic team and includes interventions that cannot be delivered by ambulance services, such as thoracotomy and anaesthesia. HEMS are often described as “bringing the hospital to the patient”. Anecdotal evidence suggests that patients benefit from this enhanced care but there is a need to formally evaluate the effect of HEMS on patient mortality and morbidity. Several systematic literature reviews have been published on the impact of HEMS, but these have been limited in terms of their focus on particular patient groups (e.g., traumatic injury, Butler et al., 2010), types of incident (e.g., major incidents, Johnsen et al., 2013), or outcomes (e.g., mortality, Butler et al., 2010). The current review will assess literature on the effectiveness of HEMS in reducing patient mortality and morbidity following critical illness and injury. Findings of the literature review will be used in the development of a funding application for a project exploring the impact of Essex & Herts Air Ambulance Trust (EHAAT) – a local HEMS Charity – on patient mortality and morbidity.

Programme of student study:

Task:& Summary by Week:

1. Induction, initial development of search terms (including meeting with research librarian), agreement on inclusion and exclusion criteria and selection of databases
2. Refinement of search terms with supervisors and literature searching
3. Literature searching
4. Literature searching
5. Literature screening (in collaboration with supervisors)
6. Literature screening (in collaboration with supervisors)
7. Sourcing of included studies and data extraction (supervisors will provide data extraction table)
8. Data extraction and assessment of bias (in collaboration with supervisors)

Anticipated outcomes:

a) for the student
The placement will equip the student with the skills to conduct a systematic literature review, increase their familiarity with databases of references and abstracts, enhance their ability to critically appraise literature and provide experience of using reference management software. Working alongside the supervisors, the student will gain valuable experience of working in a research team in addition to knowledge of the subject area (Helicopter Emergency Medical Services). The placement will also increase the student’s knowledge of randomised controlled trials and other research
designs. Further, the student will be named as a co-author on the associated publication.

b) for the project/research area
Sarah McLachlan and Hilary Bungay are working on a series of projects with EHAAT and SM is funded by the Charity. EHAAT is interested in assessing the effectiveness of their Helicopter Emergency Medical Service in reducing patient mortality and morbidity following critical illness or injury. This literature review will provide the basis for a such a project and be used to inform a future funding application. In addition to strengthening the collaboration between EHAAT and ARU, this is likely to bring funding to the Faculty and lead to impactful publications that could be submitted in the REF.

c) Likely publication(s)
The systematic literature review will be submitted to the Emergency Medicine Journal, with the student named as a co-author.

For further information or to apply: sarah.mclachlan@anglia.ac.uk