## University of Keele

\*Funded PhD studentship at Keele University - Deadline Monday 7th August 2017\*

We are looking to recruit a PhD student with a strong statistical background to develop methodology within a multidisciplinary research environment on a project hosted within the Institute for Primary Care and Health Sciences (iPCHS) at Keele University.

\*Title:\* Trends and determinants of survival for patients on renal replacement therapy over time.

## \*Project details\*

End Stage Renal Disease (ESRD) is the severe end of the spectrum of Chronic Kidney Disease, requiring renal replacement therapy (RRT) in the form of peritoneal dialysis, haemodialysis or renal transplantation, to stay alive. This PhD project will utilize, and extend when required, advanced statistical methods for the analysis of longitudinal data collected from the UK Renal Registry. These will include multistate modelling to describe how ESRD and its management in RRT patients evolve through different stages over the patient's lifetime, including transitions between different treatment modalities, the occurrence of other health events, hospitalisation, recovery of kidney function, or death.

Further, graphical Markov models will be utilized to build causal diagrams to describe relationships among patient factors and treatment modalities underlying longer survival time. The statistical modelling will be guided by strong clinical knowledge and experience from experts in the field of nephrology based at the Institute for Clinical Sciences (iACS) at Keele University, so that clinical insight from the analyses can be demonstrated and communicated meaningfully. In addition, the student will benefit from the methodological expertise provided by the iPCHS.

The iPCHS is the largest and most successful Research Institute at Keele (<a href="http://www.keele.ac.uk/pchs/">http://www.keele.ac.uk/pchs/</a>). It is dedicated to undertake research that will improve the quality of care for people with arthritis, chronic musculoskeletal pain, mental health problems and associated comorbidities.

It hosts the Arthritis Research UK Primary Care Centre-of-Excellence, is a current member of the NIHR School for Primary Care Research and holds the Queen's Anniversary Prize for Pioneering the early prevention and treatment of chronic pain. 91% of Keele's research in Primary Care has been judged world leading or internationally excellent (Ref 2014).

\*Informal enquiries\* are welcome and should be directed to the project supervisors: Dr Mark Lambie (<a href="mailto:lambiem@doctors.net.uk">lambie@keele.ac.uk</a>) or Dr Ivonne Solis-Trapala (<a href="mailto:i.solis-trapala@keele.ac.uk">i.solis-trapala@keele.ac.uk</a>).

\*Eligibility:\* Applicants should have a good first degree (2:1 or above) in Statistics, Mathematics or related discipline, and a Master's degree in Medical Statistics or related discipline is desirable.

\*Studentship:\* Funding is available for three years to cover fees for PhD registration (2017/18 home/EU rates: £4,121) and a research studentship stipend of currently £14,553 per annum for 2017/18. Non-EU students would be required to pay the balance (currently approximately £11,179 per annum) of the overseas fees themselves. A programme of research training will also be provided and it is anticipated that students will be involved in a number of Keele and institute-wide activities including research seminars, journal clubs and an annual student conference.

\*How to apply\*

Please ensure that you reference the studentship number (RPCH2017/06) throughout your application. Please apply here:

http://www.keele.ac.uk/pgresearch/studentships/

\*Closing date for applications\* is **Monday 7th August 2017** 

For any queries relating to the application process, please contact Miss Zara Richards (z.richards2@keele.ac.uk)

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