



PhD in Pharmacometrics / Pharmacoeconomics

Applications are invited for a Medical Research Council funded PhD studentship at the [Centre for Health Economics and Medicines Evaluation](#), Bangor University. This full-time, 3-year studentship provides full support for tuition fees, all associated research costs and a tax-free annual stipend of £17,726.

In collaboration with the University of Liverpool and Pfizer, this PhD will be to develop and apply linked pharmacometric-pharmacoeconomic analyses in clinical drug development.

How to Apply

Interested candidates are advised to discuss the project with Professor Dyfrig Hughes d.a.hughes@bangor.ac.uk before the 17th November 2014. Further details on eligibility and how to apply are available from:

http://www.methodologyhubs.mrc.ac.uk/about_us/phd2015.aspx

Project details

Model-based drug development uses pharmacometric (quantitative pharmacology) approaches to inform trial design and optimise compound development strategies. This approach aims to reduce late-stage failure and improve the efficiency of drug development. This PhD project will aim to develop case studies for application in clinical drug development. The project will improve methods for strategic, clinical and pricing decisions during phase II/III drug development.

Case studies of marketed drugs for which publicly available data are available will be identified to develop appropriate population pharmacokinetic–pharmacodynamics (PPKPD) models and /or pharmacological model-based meta-analyses that describe the time-course of drug action on relevant biomarkers or condition-specific outcome measures. Using standard pharmacoeconomic modelling approaches for defining relevant health states, applying NHS costs, and discounting to net present value, the analysis will reveal the price of the drug which would result in it being cost-effective. Using value of information analyses a trial will be considered worth undertaking if the expected value of sample information is greater than the cost of the trial. The accumulation of evidence supporting pharmacometric/economic modelling will increase confidence in its application.

http://www.methodologyhubs.mrc.ac.uk/pdf/Q25_Hughes.pdf