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Recruitment-Postdoctoral fellows in epidemiology, mathematical modelling and health economic evaluation of vaccine-preventable diseases

The research group of Prof Hongjie Yu in the School of Public Health, Fudan University, China, seeks to recruit several full-time postdoctoral research fellows to work on epidemiology, mathematical modelling and health economic evaluation of vaccine-preventable diseases. The positions are linked to projects funded by a prestigious Global Health Research award from the United Kingdom's National Institute for Health Research, as well as funding from Prof Yu's grants at Fudan University. They are co-supervised by Prof Hongjie Yu at Fudan University, and Profs Mark Jit, Marc Baguelin and other key academics at the London School of Hygiene & Tropical Medicine (LSHTM). The postdocs will have a unique opportunity to interact with academics and public health professionals in both China and the United Kingdom.

Institutional summary

The research group of Prof Hongjie Yu in the School of Public Health, Fudan University, Shanghai, China

Professor Hongjie Yu is a doctoral supervisor in the School of Public Health of Fudan University. He received the National Science Fund for Distinguished Young Scholars in 2015. He was also elected as one of Changjiang Scholars, Ministry of Education of the People's Republic of China. He is a member of The WHO Advisory Group of the Global Action Plan (GAP AG) for Influenza Vaccines, member of the WHO Strategic Advisory Group of Experts on Immunization (SAGE) Working Group on influenza vaccines and immunization.

Prof Yu has decades of experiences in multidisciplinary researches in infectious diseases, including the transmission dynamics, epidemiological parameters, disease burden, evaluation of interventions, as well as vaccine efficacy, effectiveness, safety, and cost effectiveness for emerging and re-emerging infectious diseases with public health importance, e.g. Ebola, SARS, novel animal influenza virus infections, Hand, Foot, and Mouth Disease, Dengue, Rabies, Brucellosis, seasonal influenza, pneumococcal and Hib diseases. He has published over 135 articles (IF: 1226) in international peer-review journals, including 5 papers published in *The Lancet*, 2 in *BMJ*, 4 in *PLoS Medicine*, 4 in *Lancet Infectious Disease*, and 1 in *Nature Communications* as the first author or senior corresponding author. Of them, 12 articles were published with editorial comments, and 9 articles were published in fast-track.

The research team led by Prof Yu is an interdisciplinary group tied closely to infectious diseases with great public health importance, and focuses on four research areas: spatial epidemiology; dynamics, evolution and control of emerging/re-emerging infectious diseases; clinical epidemiology; and vaccines. In the field of vaccines, the research team aims to undertake targeted, policy-focused research including estimates of disease burden, test of vaccines for safety, immunogenicity, efficacy, and effectiveness, evaluation of cost effectiveness, demand forecasting, and budget impact analysis to accelerate new vaccine introduction into Chinese National Immunization Program and to inform evidence-based vaccine policy making.

For more information on Prof Hongjie Yu, please see <http://sph.fudan.edu.cn/t/174>

London School of Hygiene & Tropical Medicine, London, UK

The London School of Hygiene & Tropical Medicine (LSHTM) is a world-leading centre for research and postgraduate education in public and global health. The School's multidisciplinary expertise includes clinicians, epidemiologists, statisticians, social scientists, molecular biologists and immunologists, and work with partners worldwide to support the development of teaching and research capacity.

The School's education programmes have grown to more than 1,000 London-based Master's and Research students, 2,900 studying Master's by distance learning and 1,000 on short courses and continuous professional development. The School has also launched a series of free online courses, and more than 15,000 people registered on the first of these, Ebola in context. Staff, students and alumni work in more than 150 countries in government, academia, international agencies and health services.

The School is highly ranked in various university league tables. It was named the world's leading research-focused graduate school in the Times Higher Education World Rankings in 2013, and was the Times Higher Education University of the Year in 2016. In 2014, it was ranked in the top 10 universities in the world for citation rate by the new EU-supported U-Multirank database, fourth in the world for impact in medical sciences by the Leiden Ranking and third in the world for social science and public health in the US News Best Global Universities Ranking. According to the results of the UK government's Research Excellence Framework, published in December 2014, the School was ranked second overall (after the Institute for Cancer Research) on the key measure of impact.

For more information on LSHTM, please see <http://www.lshtm.ac.uk/>.

Position overview

The postdoctoral positions will focus on mathematical modelling and health economic evaluation of vaccine-preventable diseases including *Streptococcus pneumoniae*, hand-foot-mouth disease, human papillomavirus infection and influenza.

Essential Duties:

- Designing and conducting original economic evaluation studies;
- Evaluating the economic (eg. conducting costing studies) and health burden (e.g.

- conducting studies to measure QALYs and DALYs) of infectious diseases;
- Analyzing data bases as needed to support development of economic models;
- Conducting reviews and evidence syntheses to feed into the economic models;
- Designing and developing economic models (decision analysis, Markov models, budget impact models, return on investment models, cost-utility, cost-effectiveness and cost-benefit models, etc.) for vaccination strategies;
- Modelling transmission of infectious diseases and potential impact of vaccination programmes;
- Undertaking quantitative analysis and evaluation of the impact of vaccination strategies on financial budgets, and health outcomes;
- Presenting scientific findings to colleagues and at conferences, and publishing as technical reports or manuscripts for high quality journals.

Required Qualifications:

- Background: Postgraduate degree in a relevant quantitative subject (eg. economics, health economics, econometrics, biostatistics, epidemiology, applied mathematics, computer science). Candidates with a master degree but no PhD will be expected to have extensive research experience and publications to the level of a PhD.
- Previous and proven research experience;
- 1-2 years of experience in health economic modelling of infectious diseases; experience of using health economic analytical packages, e.g. R.
- Scientific written skills;
- Native language should be Chinese, or be able to speak, read and write Chinese to the level of a native speaker;
- Strong command of spoken and writing English;
- Curious and interested in learning new knowledge and skills;
- Detail-oriented;
- Highly motivated, ambitious, enthusiastic;
- Creative and solutions focused, a real problem-solver.

Applicants who are highly motivated, ambitious, enthusiastic and have interests in modelling infectious diseases are especially preferred.

In addition, postdocs will be assessed on their ability in English during the interviews in China. Interviews will be conducted in English.

How to apply

Review of applications will be conducted on a rolling basis and continue until the positions are filled. Submit the following, with the subject line of “Infectious diseases modelling Post doc application” to cfetpyhj@vip.sina.com and 12307120268@fudan.edu.cn.

- Curriculum vitae
- A one-page cover letter explaining why you are interested in this position and what you expect to get out of it

Shortlisted candidates will be invited for interview in September 2017.