

Project Title: Gonorrhoea: antibiotic resistance and genomic epidemiology in The Gambia.

Director of Study : Dr Lori Snyder

2nd Supervisor: Dr Ruth Griffin

Other members of supervisory team: Dr Sarah Burr, MRC: The Gambia

School: Life Sciences

Any requirements from applicant (eg degree in specific subject area) :

Applicants should have taken some microbiology and genetics as an undergraduate. An ideal applicant would have an association with the MRC: The Gambia. Field work in The Gambia will be required.

Project summary:

Gonorrhoea infections may soon become untreatable according to the World Health Organisation, leading to infertility and infant blindness. Antibiotic resistance in the bacteria *Neisseria gonorrhoeae* continues to rise, yet in The Gambia cases are often treated according to symptoms in the clinic alone, with very few centres able to send samples for microbiology culture. Patients receive penicillin, potentially in a background of high resistance, although no recent studies have been done in The Gambia to assess the antibiotic resistance or epidemiological situation for *N. gonorrhoeae*. In this PhD, field work will include sample collection and culturing at the MRC: The Gambia and antimicrobial testing. Genomics and epidemiological investigations will be explored at Kingston University. Using this data, a better understanding of the diversity of circulating gonococcal isolates will be gained with the view to developing a strategy for disease control and elimination.