

Project proposal

<i>Project title</i>	<input type="text" value="Gonorrhoea antibiotic resistance, genomic changes, and evolution."/>
<i>First Supervisor</i>	Dr <input type="text" value="Lori Snyder"/>
<i>Second Supervisor</i>	<input type="text" value="Prof. Mark Fielder"/>
<i>School</i>	<input type="text" value="Life Sciences"/>
<i>Other member of supervisory team (no more than three KU supervisors in total)</i>	<input type="text"/>
<i>Specific requirements beyond 2:1 degree</i>	<input type="text" value="Strength in microbiology and genetics."/>

Project summary (max 4,000 characters)

Antibiotic resistance in the bacteria *Neisseria gonorrhoeae* is at a level where the WHO warn it may become untreatable. Alternatives are urgently needed. Dr. Snyder has been investigating a number of mechanisms of antibiotic resistance in this species since her PhD studies with Prof. Bill Shafer at Emory University in the USA. Through advances in genome sequencing technologies, we have been able to explore how the *N. gonorrhoeae* genome changes over time and hypothesise as to the role of these in the evolution of antibiotic resistance. This PhD will further investigate these discoveries, as well as ongoing advances in the field as epidemiological and genomic projects reveal more about the diversity of the worldwide population and scope of *N. gonorrhoeae* antibiotic resistance mechanisms.