Project proposal

Project title	Assessment of bacterial colony movement in solids and liquids
First Supervisor	Dr Alison kelly
Second Supervisor	Prof Andy Augousti
School	Life Sciences
Other member of supervisory team (no more than three KU supervisors in total)	Prof David Wertheim Prof Mark Fielder
Specific requirements beyond 2:1 degree	

Project summary

(max 4,000 characters)

MSc by Research

Improved understanding of the mechanisms of bacterial colony movement may help to limit their spread and hence help to reduce resultant infection rates. The aim of this multidisciplinary study is to develop a system to investigate the motility of bacterial colonies. A bacterial growth chamber system will be developed in order to investigate how bacteria move in response to factors including nutrient gradient, temperature and chemo-attractants. The system will be used to investigate the efficacy of barriers in preventing bacterial dissemination in solids and liquids. A combination of spot measurements and high resolution microscopy will be used to study the colonies; mathematical models will be developed, tested and applied in order to try to further understand factors that may affect motility.