The genes that determine of susceptibility to pneumonia.

Application deadline: Applications accepted all year round

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Funding: Self-funding only

Summary
Infectious diseases are a serious, global threat to human health. One of the most important agents of these diseases is Streptococcus pneumoniae, being the main cause of pneumonia, which is associated with millions of deaths each year. Individuals vary in their susceptibility to infection and this susceptibility has a strong genetic component. Work in the supervisor’s group has discovered genetic loci that are significantly associated with susceptibility to pneumococcal disease. Now we aim to explain how the identified genes function in determining susceptibility or resistance to infection. Identification of the gene(s) determining susceptibility/resistance, and how they explain susceptibility, could form the basis for new approaches to therapy of pneumococcal disease by providing new targets for host defence therapeutic strategies and offering the possibility of targeting therapy or prophylaxis to those most at-risk. Such a targeted approach also could extend the effective lifespan of new antimicrobial agents by restricting their use to those most at risk.

PhD opportunities also are available to study virulence factors of bacterial pathogens or the responses of bacterial pathogens to their environments.

References: