



Title of PhD project	<b>Microbiomics and genetics of human attractiveness to malaria mosquitoes</b>	
Supervisor	<a href="#">Professor James Logan</a>	LSHTM
Co-Supervisor	<a href="#">Dr Rachel Allen</a>	SGUL
Brief description of project	<p>There is great variation in attractiveness to mosquitoes among people and this largely depends on the production of specific body odour volatiles by the human body. Differential attractiveness is thought to be mediated by the presence of bacteria living on our skin as well as by heritable genetic differences between people. This project will decipher the respective roles and potential interactions between the skin microbiome and human genetic factors in attractiveness to mosquitoes using metagenomics coupled with existing genomic data from twins. The project will complement a larger programme of work investigating mosquito-host-parasite interactions, with the potential to assess the additional effect of <i>P.falciparum</i> infection by combining behavioural assays, chemical ecology and metagenomics.</p>	
Particular <i>prior</i> educational requirements for a student undertaking this project	<p>Knowledge in entomology, microbiology, molecular biology and/or next-generation sequencing would be desirable. Interest in disease control or chemical ecology would also be desirable.</p>	
Skills we expect a student to develop/acquire whilst pursuing this project	<p>Designing and conducting experiments with mosquitoes, preparing DNA samples for high-throughput sequencing, metagenomics analysis.</p>	
Key Words	<ul style="list-style-type: none"> <li>• Malaria</li> <li>• Mosquito</li> <li>• Genomics</li> <li>• Bacteria</li> <li>• Chemical ecology</li> </ul>	