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## Why are malaria parasites virulent?

Thursday 13 June 2013, 1pm

**Dr Margaret Mackinnon**, Nuffield Department of Clinical Medicine,  
University of Oxford, UK

**Slatyer Seminar Room**, Building no. 46, Linnaeus Rd, ANU



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Malaria parasites have an extraordinary ability to adapt, and this underlies their persistent devastation of human health in the tropics. In order to design better and long-term solutions to malaria, we need to understand the selection pressures that create more virulent and more transmissible parasites. We then need to dissect the molecular basis of these adaptive traits. My research takes a 'natural genetics' approach towards identifying the parasite's adaptive genes by examining gene expression levels in parasite populations in Africa which have evolved under different levels of host selection pressures, particularly human immunity. By understanding the molecular adjustments made by the parasite to cope with their strongly selective host environment, we hope to identify molecular targets for vaccines and drugs that will last long into the future.

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