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PhD exit seminar: Identifying the minimal number of mutations required for chloroquine transport via the malaria parasite's 'chloroquine resistance transporter'

Thursday 5 December 2013 1 – 1:30pm

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Slatyer seminar room R.N. Robertson Building (Bldg. 46), Linnaeus Way, ANU



Humans have been suffering from malaria for more than 500,000 years. As resistance to our last-line antimalarial drug spreads through the malaria parasite population, alternatives are desperately needed. One avenue is to re-examine previously efficacious antimalarials that have fallen out of use due to widespread resistance. Of these, chloroquine is particularly promising.

In this talk I will present work carried out for my Master of Philosophy on the roles of 8 chloroquine resistance-associated mutations in the protein responsible for chloroquine resistance, PfCRT. I show that just two mutations are sufficient to induce a low level of chloroquine transport via PfCRT and as few as 4 mutations confer a high level of chloroquine transport. These findings provide novel and unexpected insights into the workings of a protein that is a key determinant of drug resistance in the malaria parasite.

Presented by

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This lecture is free and open to the public

BSB Seminar information:

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