

## 2017 Seminar Series



**Wednesday 23<sup>rd</sup> of August**  
**12-1pm**  
**Bio21 Institute Auditorium**  
**30 Flemington Road, Parkville**

### **Dr Simon Cobbold**

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Molecular Biology, University of  
Melbourne.

### ***Investigating antimalarial drug resistance using mass spectrometry***

The malaria parasite has repeatedly found ways to overcome the best interventions of its human host. Antimalarial drug resistance is a constant and heightened problem which potentially undermines the progress made in combating this disease. Understanding how resistance emerges is crucial for future drug design and for exploiting potential resistant-driven synergism. ***How can mass spectrometry, untargeted metabolite profiling and kinetic flux profiling help our understanding of antimalarial resistance?*** Given that most antimalarials target metabolic processes, the mode of action and resistance mechanism can often be detected and studied using these techniques. Here I will present some brief examples of how mass spectrometry techniques can provide insight into antimalarial drug resistance, provide plausible mechanisms of resistance and generate clear testable hypotheses. These examples will hopefully illustrate how mass spectrometry can complement whole genome sequencing and traditional biochemistry to answer a variety of questions within molecular biology.

*ALL WELCOME. Please join us for a light lunch after the seminar!*  
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