

## **Exploiting the utilisation of coenzyme A and pantothenate by the malaria parasite *P. falciparum* as an antimalarial drug target.**

Pantothenate (vitamin B5) is an essential nutrient for the intraerythrocytic stage of the human malaria parasite *P. falciparum*, as it serves as sole precursor to the important enzyme cofactor coenzyme A (CoA), which is involved in central and fatty acid metabolism. The goal of this project is to identify compounds that potently inhibit the growth of the intraerythrocytic stage of *P. falciparum* by specifically inhibiting the parasite's ability to either biosynthesise CoA from pantothenate, or to utilise CoA. We will set out to achieve this by two approaches: first, by performing structure activity relationship studies on a recently discovered class of pantothenate analogues called pantothenamides to identify a potent antimalarial, and second, by revisiting historic studies that identified pantothenate analogues as potential antimalarials against avian malaria, but were never tested as potential inhibitors of the growth of the human parasite, *P. falciparum*.

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