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## Plasmodial enzymes in metabolic pathways as therapeutic targets and contemporary strategies to discover new antimalarial drugs: A review (Review)

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### Abstract

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Malaria continues to pose imminent threat to the world population, as the mortality rate associated with this disease remains high. Current treatment relies on antimalarial drugs such as Artemisinin Combination Therapy (ACT) are still effective throughout the world except in some places, where ACT-resistance has been reported, thus necessitating novel approaches to develop new anti-malarial therapy. In the light of emerging translational research, several plasmodial targets, mostly proteins or enzymes located in the parasite's unique organelles, have been extensively explored as potential candidates for the development of novel antimalarial drugs. By targeting the metabolic pathways in mitochondrion, apicoplast or cytoplasm of Plasmodium, the possibility to discover new drugs is tremendous, as they have potentials as antimalarial therapeutic targets. This literature review summarizes pertinent information on plasmodial targets, especially enzymes involved in specific metabolic pathways, and the strategies used to discover new antimalarial drugs. © 2019, University of Malaya. All rights reserved.

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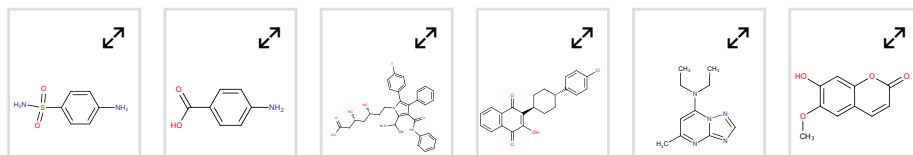
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