

Anti-Inflammatory Drugs May Help Patients With Severe Malaria, Study

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<http://www.asianscientist.com/in-the-lab/innate-defense-regulator-peptides-severe-malaria-2012/>

AsianScientist (Jun. 6, 2012) - In a new publication in the *Science Translational Medicine*, researchers from the Walter and Eliza Hall Institute describe a new class of anti-inflammatory agents which may help to increase survival from severe clinical malaria when used in combination with antimalarial drugs.

Malaria kills up to one million people worldwide every year, particularly children under five and pregnant women, and they often develop severe clinical symptoms such as brain damage and multiple organ failure.

According to senior author Prof. Louis Schofield, up to 25 percent of severe clinical malaria cases are fatal even with access to the best health care, as antimalarial drugs are effective only when given before serious clinical symptoms develop.

“The most severe forms of malaria, such as cerebral malaria which causes brain damage, are actually the result of the immune system trying to fight infection and causing collateral damage,” said lead author Dr. Ariel Achtman.

Innate defense regulator (IDR) peptides are a new class of anti-inflammatory agent developed by Professor Robert Hancock and colleagues at the University of British Columbia, Canada, which enhance beneficial aspects of the initial immune response while dampening harmful inflammation.

Using mouse models infected with the malaria parasite *Plasmodium berghei*, the team showed that the IDR peptides could prevent inflammation in the brains of mice with malaria and improve their survival.

This study is an example of a 'host-directed' therapy – a treatment intended to act on the host not the parasite, explained co-author Dr. Sandra Pilat-Carotta.

"IDR peptides are also relatively cheap to produce and easy to use, making them a good option for medical treatments in developing countries," Schofield said.

The article can be found at: [Achtman AH et al. \(2012\) Effective Adjunctive Therapy by an Innate Defense Regulatory Peptide in a Preclinical Model of Severe Malaria.](#)

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