

Insight into parasite family planning could help target malaria

March 16 2011

Fresh insight into the way the parasite that causes malaria reproduces could lead to new treatments to help curb the spread of the disease.

Scientists studying the disease have found that upsetting the parasite's reproductive strategy could prevent infections from transmitting from person to person.

Researchers at the Universities of Edinburgh and Oxford examined the parasite at a stage of its development in which it produces male and female forms in the [bloodstream](#) of its victims. These parasites then breed inside [mosquitoes](#) to produce fresh [offspring](#) that are transmitted when the insects feed on other people or animals.

The study showed that killing either the male or female forms was ineffective at stopping the spread of the disease, because the parasites replace those which are lost. However, the researchers were able to overcome this by damaging the male and female forms instead of killing them. This meant that although the [parasites](#) were able to reproduce, their offspring did not survive.

Malaria affects people and animals and is spread by the bite of the mosquito. The disease kills approximately one million people each year, mainly children in sub-Saharan Africa, and affects hundreds of millions more.

The study, published in *PLoS* [Pathogens](#), was funded by the Portuguese

Foundation for Science and Technology, the Royal Society, Balliol College Oxford and the Wellcome Trust.

Ricardo Ramiro, of the University of Edinburgh's School of Biological Sciences, who took part in the study, said: "Our studies show that inflicting just the right amount of damage could be the best way to interrupt the malaria parasite's development in the mosquito and help prevent the spread of disease."

Provided by University of Edinburgh

Citation: Insight into parasite family planning could help target malaria (2011, March 16) retrieved 27 April 2024 from

<https://medicalxpress.com/news/2011-03-insight-parasite-family-malaria.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.