

Scientists pinpoint gene linked to drug resistance in malaria

12 October 2010

Scientists have shed light on how malaria is able to resist treatment with a leading drug. Provided by University of Edinburgh

Researchers have identified a gene that enables the parasite that causes the infection to resist treatment with the plant-based remedy artemisinin.

In many countries where the parasite has developed resistance to previously effective common treatments such as [chloroquine](#), artemisinin remains the only effective treatment against the infection. However, malarial resistance to artemisinin appears to be developing, potentially creating problems in controlling malaria.

Identification of this gene paves the way for further studies that could eventually help control the development of resistance to artemisinin and lead to more effective drugs for human malaria.

The study, by scientists from the University of Edinburgh and the Universidade Nova de Lisboa, used emerging technology to scan the genetic fingerprint of drug resistant parasites that infect rodents. This technology allows rapid identification of [genes](#) that enable the parasite to withstand existing drug treatments.

There are estimated to be between 300 and 500 million cases of malaria each year, occurring in over 90 different countries, according to the World Health Organisation.

Dr Paul Hunt, from the University of Edinburgh's School of Biological Sciences, said: "This knowledge from rodent malaria [parasites](#) opens up new directions that will allow this gene to be investigated in human [malaria](#). This may help track the evolution of [drug resistance](#) and may eventually enable the design of alternative, effective drugs."

More information: The study is published in *BMC Genomics*.

APA citation: Scientists pinpoint gene linked to drug resistance in malaria (2010, October 12) retrieved 12 June 2021 from <https://phys.org/news/2010-10-scientists-gene-linked-drug-resistance.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.