Malaria parasites change behaviour

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PRESS ASSOCIATION

Malaria parasites can detect when they are being threatened and change their behaviour to survive, new research has suggested.

The insight into the behaviour of the disease may explain how malaria is able to resist drug treatment, according to scientists in Edinburgh.

The study could lead to better control of the disease.

Caused by a parasite called Plasmodium, malaria is spread through the bites of infected mosquitoes and kills around a million people in the world each year.

Some of the parasites multiply in the bloodstream and others change into a specialised transmission form, which enables the disease to spread.

The researchers found that when exposed to low doses of anti-malarial drugs, this delicate balance of replicating and transmitting is upset.

The parasites respond by increasing their chances of survival through a safety-in-numbers strategy: they produce fewer transmission forms and concentrate more on replication.

Dr Sarah Reece, from the University of Edinburgh's school of biological sciences, said: "This study uncovers a new way that parasites are able to resist the effects of drugs. This is also likely to have important implications for human disease control strategies.

"If drugs push parasites into producing more replicating stages, which cause the symptoms, then this may lead to more serious illness."

The research findings are published in the journal Proceedings Of The Royal Society B.