

# Malaria parasites are 'good survivors'

## STUDY SHEDS NEW LIGHT ON DISEASE

MALARIA parasites are skilled survivors, developing sophisticated strategies to fight off rival infections, scientists have found.

New research has shed light on the ability of the disease to thrive in the human body.

Malaria, which is spread by mosquito bites, kills around one million people every year and accounts for one in five of all child deaths in Africa.

The study by a team at Edinburgh University has found its virulent nature owes much to the parasites' competitive streak.

When they enter the bloodstream of their victims, they alter their plan of attack if they face competition from other competing strains of the infection.

The malaria parasites focus on producing cells that replicate quickly to cause infection, rather than cells capable of being taken up by a feeding mosquito and spreading the disease.

Since malaria infections usually consist of multiple competing strains of the parasite, this attack strategy is the best way to beat the competition, scientists say.

The parasites pay a high price, however, as it means they have fewer resources left to spread the disease.

Laura Pollitt, of the School of Biological Sciences, said: "Our results explain a long-standing puzzle of parasite behaviour.

"We found that when parasites compete with each other, they respond with a sophisticated strategy to safeguard their long-term survival.

"They opt to fight it out in the bloodstream rather than risk everything on the chance of infecting mosquitoes in the short term."

The research, published in the *American Naturalist*, was funded by the Wellcome Trust, the Biotechnology and Biological Sciences Research Council and the Natural Environment Research Council.

