Metro (UK)

October 27, 2011 Thursday   
Edition 1;   
Scotland

**Scientists develop** **malaria vaccine**  
**BYLINE:** Stephen Deal  
  
**SECTION:** NEWS; Pg. 15  
  
**LENGTH:** 288 words

SCIENTISTS have developed a malaria vaccine to tackle different forms of the disease, it was revealed yesterday.

The 'multiple malaria vaccine' is different from other developments that target single strains of the disease, which is spread by mosquito bites and affects people and animals principally in sub-Saharan Africa.

The vaccine could be developed to help those most vulnerable to infection, including children.

Developed by researchers at Edinburgh University, it is designed to trigger production of a range of antibodies to fight the many different types of parasite causing the disease.

It was created by combining multiple versions of a key protein found in many types of the malaria parasite, which is known to trigger production of antibodies upon infection.

Dr David Cavanagh, of Edinburgh University's school of biological sciences, who led the study, said that, because malaria parasites exist in many forms, the only way to gain natural immunity against all strains is by having multiple bouts of the illness.

A vaccine that overcomes this could be especially useful in children and other vulnerable groups of people, he said.

Many previous vaccines against malaria have had limited success because they target only a limited part of the parasite population.

The new vaccine has also shown to be effective in animals.

A study supported by the European Commission and published yesterday revealed the results from the tests in blood samples from children in endemic areas.

The scientists are now hoping to carry out full-scale human trials.

Dr Cavanagh said: 'Our approach is novel because it combines multiple antibody targets from different parasite types, giving broader protection.

'This could prove to be a useful vaccine.'

27 October 2011 Last updated at 00:52

**BBC**

**Protein key for multiple malaria vaccine**

A new malaria vaccine could be the first to tackle different forms of the disease and help those most vulnerable to infection, a study has suggested.

The vaccine is designed to trigger production of a range of antibodies to fight different types of parasite causing the disease.

An Edinburgh University study combined multiple versions of a protein found in many types of malaria parasite.

The key protein is known to trigger production of antibodies on infection.

The researchers who developed the vaccine said that because malaria parasites exist in many forms, the only way to gain natural immunity against all strains is by having multiple bouts of the illness.

A vaccine which overcomes this could be especially useful in children and other vulnerable groups of people.

Human trials

Many previous vaccines against malaria have had limited success because they target only a limited part of the parasite population.

The new vaccine has also shown to be effective in animals.

Tests in blood samples from children in endemic areas showed that the antibodies against this key protein offered improved protection against the disease.

Scientists now hope to carry out full-scale human trials.

Malaria is spread by mosquito bites and affects people and animals, mostly in sub-Saharan Africa.

According to the World Health Organisation, in 2009 the disease affected 225 million people and caused an estimated 781,000 deaths, mostly among African children.

The study, published in PLoS One, was supported by the European Commission.

Dr David Cavanagh, of Edinburgh University's school of biological sciences, said: "Our approach is novel because it combines multiple antibody targets from different parasite types, giving broader protection.

"This could prove to be a useful vaccine."