Malaria

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ABSTRACT

Malaria is an infectious disease caused by the protozoan of the genus Plasmodium. It is a major problem in third-world countries, with hundreds of millions of infections and millions of fatalities annually. Current attempts at controlling this disease, which include pesticides and drugs, are unsatisfactory. New techniques of malaria prevention and treatment are currently in development, including vaccines. We propose a technique that combines two different technologies that are under development. The first aspect of this technology involves the use of antibodies against the enzyme aminopeptidase, which exists in the stomach of the Anopheles mosquito and is essential in the lifecycle of the parasite. The second aspect is the genetic engineering of algae, a food source of mosquito larvae, to make it produce these antibodies so that they will be introduced into the digestive system of the mosquito.

Keywords : plasmodium, a parasitic protozoan.

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Introduction

Humans and other animals can contract malaria, an infectious disease spread by mosquitoes, from protists, a type of microbe belonging to the Plasmodium genus. It starts with a bite from a female mosquito carrying the infection, whose saliva transfers the protists into the bloodstream. System, finally arriving at the liver, where they develop and proliferate.symptoms that usually consist of headache and fever, although in extreme situations can also either in a coma or dead. A wide range of tropical and subtropical regions are affected by malaria. Centered around the equator, including a large portion of Asia, the Americas, and Sub-Saharan Africa. Mala aria, which means "bad air"

in medieval Italian, is where the word malaria first appeared. The illness was known as marsh fever or ague in the past because of its connection to marshes and wetlands.

EPIDEMIOLOGY

Susceptible species: Of the more than 1,000 different species of birds, about 65 Plasmodiun sp. have been isolated. A small number of the Plasmodium species that have been found seem to be native parasites of domestic chickens. Several additional Plasmodia species, which are found mostly in Passerine birds have the ability to infect domestic poultry or have been exposed to them in experiments.Susceptible host: Domestic fowl, penguins, ducks, canaries, and other birds may be pathogenic for Plasmodium. pigeons, falcons, and other birds, however passerine birds are the most common asymptomatic carriers. birds, non-human primates, humans, reptiles, and other mammals.Age of susceptibility: Children under the age of 15 account for the majority of cases (65%). Sexually susceptible: Additionally, pregnant women are particularly at risk: over 125 million expectant Every year, women are susceptible to illness.

Malaria

LARIA TYPE There are five types of malaria: The most serious form of the disease is Plasmodium falciparum, sometimes referred to as P. faliparum. It is most common in Africa, especially sub-Saharan Africa. Recent data indicates that instances are now being reported in parts of the world where it was previously thought that been taken out. P. vivax, the common name for the milder form of Plasmodium vivax, is typically not fatal. However, sick animals still need to be taken care of since, if they don't get better, their condition could may cause a number of health problems. Geographically speaking, this variety is the most widely dispersed. globally. About 60% of infections in India are caused by P. vivax. The parasite in question has a stage and do not do any harm to the body

ASSESSMENT OF MALARIA

Patients with malaria can typically expect a full recovery when treated appropriately.

Severe malaria, on the other hand, can advance very quickly and result in death in a matter of hours or days. Even with extensive treatment, death rates from the disease's most severe instances can reach 20%.attention and medical care. In the long run, developmental disabilities have been reported.particularly young patients who have experienced severe malaria bouts. During a time of fast brain growth, malaria not only results in widespread anemia but also

direct harm to the brain. Children who contract cerebral malaria are the cause of this brain impairment. are more susceptible. Certain cerebral malaria survivors are more susceptible to epilepsy, behavioral abnormalities, and deficiencies in the nervous system and cognition. prevention of malariawas demonstrated to enhance academic achievement and cognitive function in

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