

Genetic decoding raises hopes against malaria

A team of scientists from the United Kingdom and the United States has cracked the code of the malaria genome. After six years of effort and a cost of US\$20 million, the genome of *Falciparum*, one of the four species of malarial parasite, has been decoded by the scientists led by Dr. Malcom J. Gardner at the Institute for Genomic Research in Rockville and by Dr. Neil Hall and Dr. Bart Barrell at the Sanger Centre near Cambridge, England.

The scientists have made their research results available to other researchers looking for the genes that govern the various stages of the parasite's life cycle. The data will provide new and crucial targets for researchers designing drugs and vaccines. The parasite's genome contains some 25 million units of DNA, encoding information for some 5,600 genes. Although some genes have been found by conventional means, the genome sequence can reveal many more with a simple computer search instead of experiments that take days. Dr. Daniel E. Goldberg of Washington University in St. Louis studied the enzymes the parasite uses to degrade hemoglobin. He found two enzymes using standard methods and two by scanning the DNA sequence when that became available. The genome has helped throw light on one of the most cunning tricks of the parasite – its stratagem for preventing the cells it infects from being destroyed in the spleen, the graveyard of aging red blood cells. (The Times of India, 13 February 2002)