A-02 : A GENETIC AND IMMUNOLOGICAL INVESTIGATION OF PLASMODIAL ANTIGEN: PFG 27/25 OF *Plasmodium falciparum*

Sunil Premawansa, Pietro Alano**, Asoka Gamage-Mendis*,*
*Lisa Ranford-Cartwright**, K L R L Perera*,Kamini N Mendis*, Richard Carte*
**Dept. of Parasitology, Faculty of Medicine, University of Colombo and **Dept.*
Animal Genetics,University of Edinburgh, Scotland.

The gene coding for the gametocyte specific cytoplasmic protein Pfg 27/25 *falciparum* was amplified by Polymerase Chain Reaction (PCR). In PCR anal oligonucleotide primers derived from the extremities of the coding sequence used to amplify a region of 618 base pairs of the gene from the laboratory cul parasite isolates of 3D7A, HB3A and 7G8. The results of PCR experi

indicated that there was no size difference of the gene in different isolates tested. In an immunological study, the presence of antibodies was demonstrated against Pfg 27/25 antigen in 35 out of 36 human immune sera (from an endemic area of Sri Lanka) by immunoprecipitation and SDS-PAGE analysis. Pfg 27/25 is an internal gamete antigen and is not considered as a target antigen of transmission blocking immunity. This non-target antigen showed its ability of triggering an immune response in almost all *P. falciparum*- infected patients tested. In contrast, previous studies have shown that the immunological recognition of target antigens of transmission blocking immunity of *P. falciparum* is greatly restricted in endemic populations.

It appears from these findings that parasite proteins that are not targert of anti-parasite immunity tend to be both invariant (conserved) immunologically and genetically and also universally recognized by the human sera. This contrasts with the findings on several antigens which are important targets of anti parasite immunity and which are highly polymorphic and subjected to highly restricted conserved nature.