BLOOD STAGE *PLASMODIUM FALCIPARUM* ANTIGENS INDUCE IMMUNOGLOBULIN CLASS SWITCHING IN HUMAN ENRICHED B CELL CULTURE

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Abstract. This study aimed to demonstrate class switch recombination (CSR) in heavy chain expressing immunoglobulin G (IgG) and IgE in human B cells after exposure to *Plasmodium falciparum* schizont lysate. Human B cells ($CD20^+CD27^-$) were cultured with crude *P. falciparum* antigen (cPfAg) and anti-CD40. On Day 4 post-exposure, total RNA from B cells was prepared and the occurrence of CSR from IgM to IgG and/or IgE was investigated by reverse transcription-polymerase chain reaction. Molecular markers to detect active CSR included enzyme activation-induced cytidine deaminase mRNA, γ and ε-germline transcripts (γ, ε-GLT), circle transcript (CT) and mature transcript (γ and ε-mRNA) expression. On Day 7 and Day 14 after exposure, levels of Igs in the culture supernatant were determined by enzyme-linked immunosorbent assay. Our findings showed that we could demonstrate cPfAg-stimulated B cells undergoing CSR by use of the expressed CSR markers and the increase in specific IgG and IgE indicating the potential of this approach in the study of CSR in *P. falciparum*-stimulated B cells.

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