PROJECT NUMBER

22015, 23632, 23633

Synthetic immunogens for blood stage malaria vaccine against plasmodium falciparum

Researchers have engineered synthetic vaccine immunogens containing key epitopes that elicit potent growth-inhibitory antibodies against malaria targets RH5 and CyRPA, including PfRH5-34EM, PfRH5-top and PfCyRPA-BD.

Applications: Synthetic polypeptides, treatment of malaria, prevention of malaria

Features	Benefits
Novel, rationally designed synthetic immunogens targeting a specific region of RH5 or CyPRA to which most growth-neutralising antibodies bind	Overcomes the mixed immune response that is typically elicited when RH5 or CyRPA immunogens are used for vaccination
Use of structure-guided design to ensure optimised folding of the specified region	Presents the most effective epitope to the immune system
Immunogen series is validated and shown to be efficacious in a pre-clinical rat model	Generates a higher quality antibody response when used for immunisation compared to current vaccines

Features	Benefits
Could be used by itself, as part of sequence of immunisations with other immunogens or as part of a multi-stage vaccine program	Adaptability in vaccine delivery and program design

Awaiting patent and Available for

- Co-development
- Licensing

To find out more, contact enquiries@innovation.ox.ac.uk and quote the project number.