

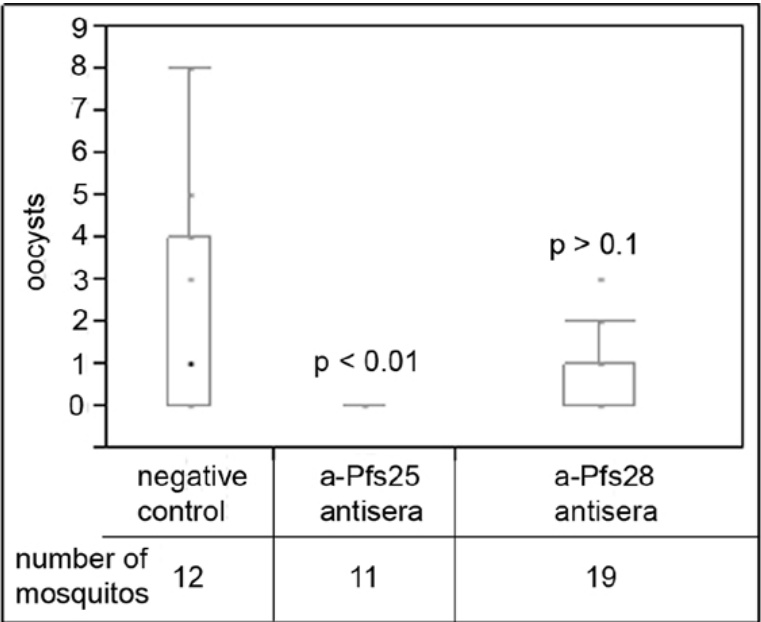
# Production of Malarial Surface Proteins in Algae for Use as Transmission Blocking Vaccine Candidates

Tech ID: 23648 / UC Case 2011-360-0

## BACKGROUND

*P. falciparum* surface proteins have been shown to block transmission of malaria. Producing them in algae results in proteins that are correctly folded and not glycosylated, so they are more similar to the native proteins than those produced in bacterial or mammalian systems. In order to produce them for use as vaccine candidates, they will need to be produced in an inexpensive expression system that does not require much, if any, post-production modification and algae chloroplasts provide a viable approach.

SAMPLE DATA



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## INVENTORS

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## OTHER INFORMATION

### CATEGORIZED AS

- **Biotechnology**
- Health
- **Medical**
- Disease: Infectious Diseases

### RELATED CASES

2011-360-0

## STATE OF DEVELOPMENT

Proof of concept: Multiple proteins have been produced in algal chloroplasts. Two have been tested and demonstrated correct folding and present the authentic antigen.

## RELATED MATERIALS

- [Steps toward a globally available malaria vaccine: harnessing the potential of algae for future low cost vaccines. Mayfield SP and Jones CS; Bioengineered 2013 May-June: 4\(3\) 164-7 PMID: 23090388 - 06/01/2013](#)

## PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	<a href="#">9,422,347</a>	08/23/2016	2011-360

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