

## Supplementary Information

**Title:** Rosettes integrity protects *Plasmodium vivax* of being phagocytized

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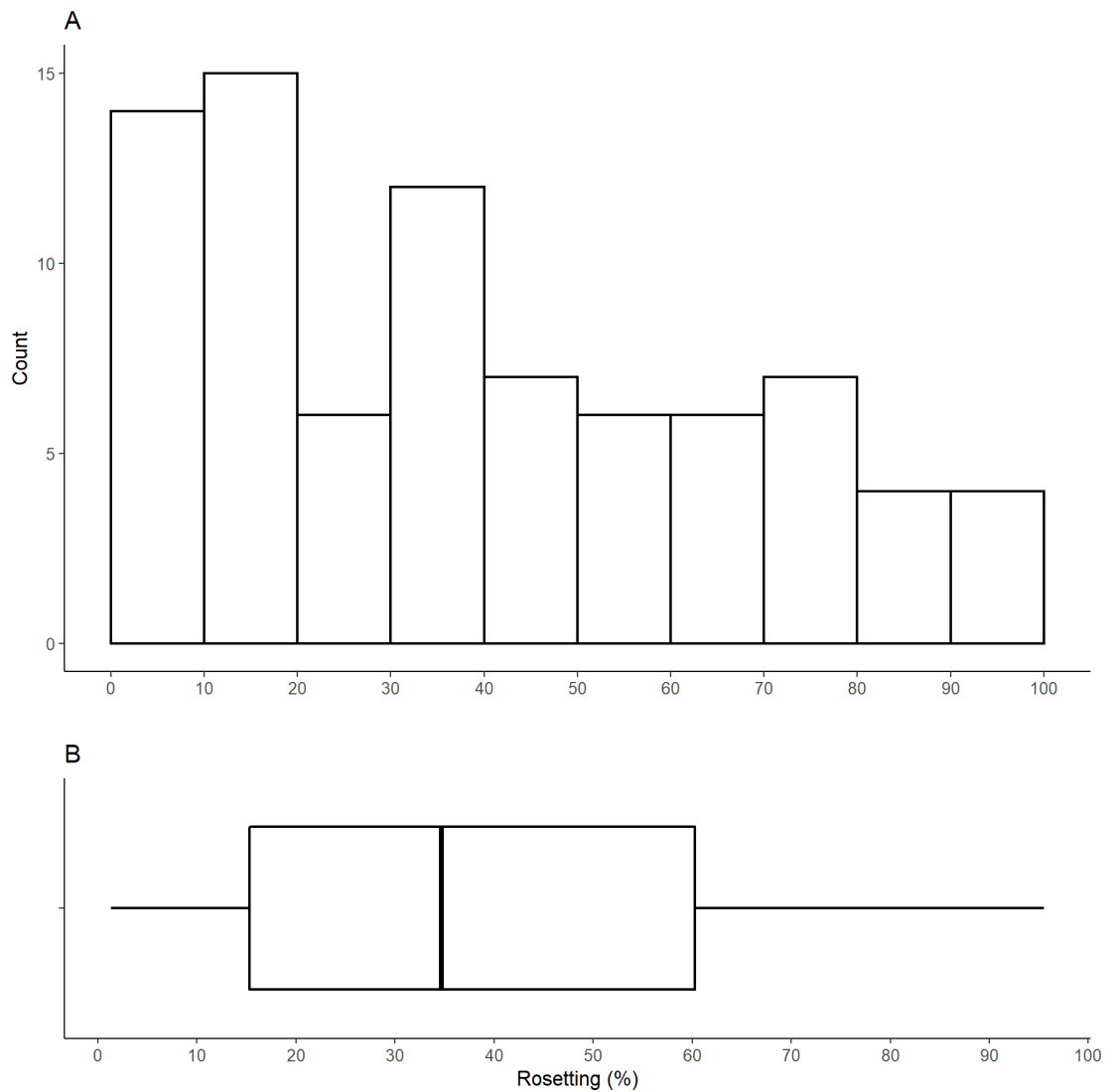
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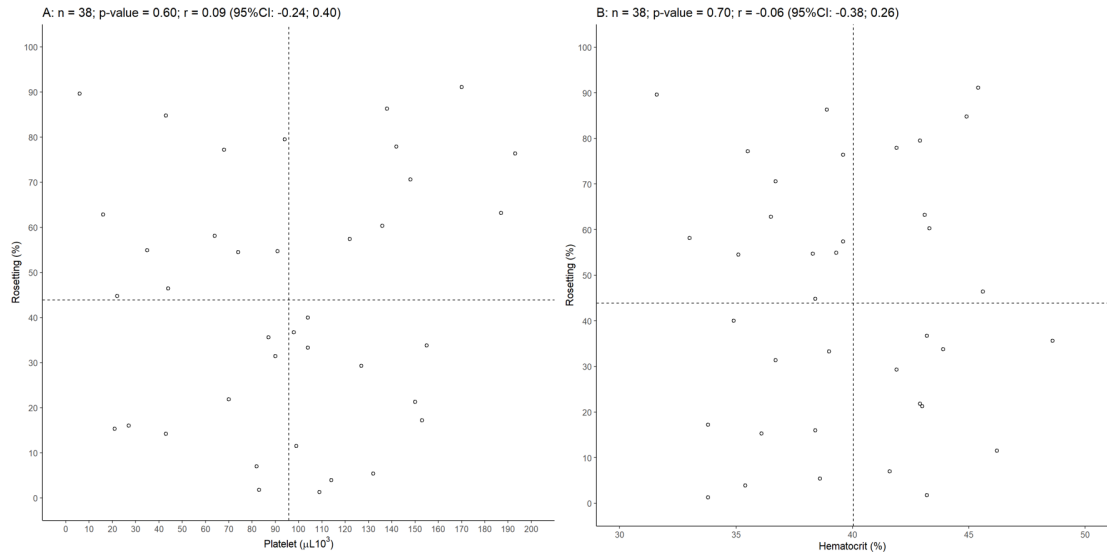
## Supplementary Information

**Supplementary Figure S1 - *P. vivax* rosetting frequency.** Rosetting rates in 81 *P. vivax* isolates in the presence of autologous plasma. **(A)** Frequency distribution of rosettes among the isolates. **(B)** Boxplot showing median and interquartile ranges of rosetting rates.

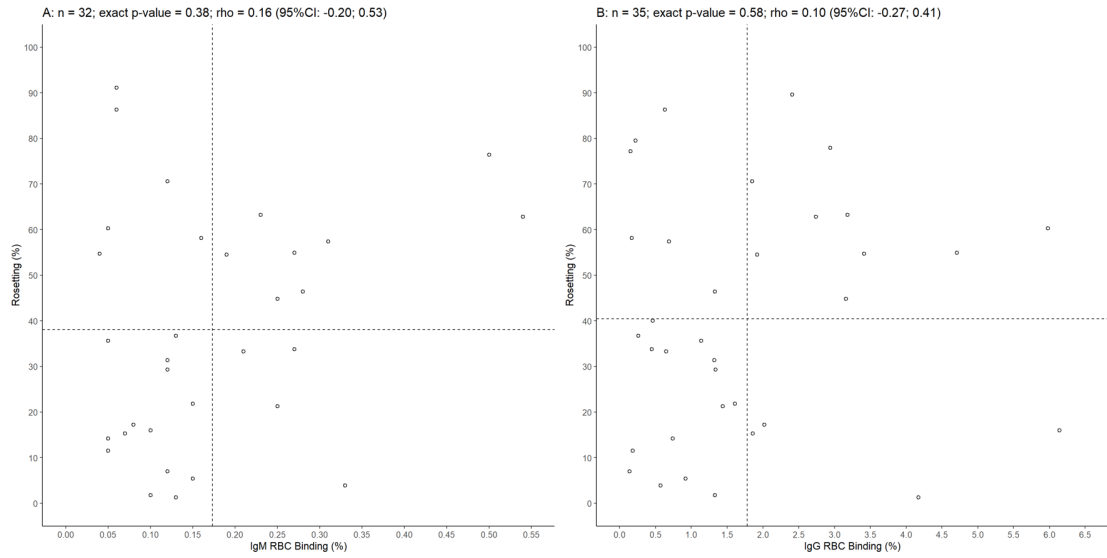


**Supplementary Figure S2 - Platelet and haematocrit levels of patients infected**

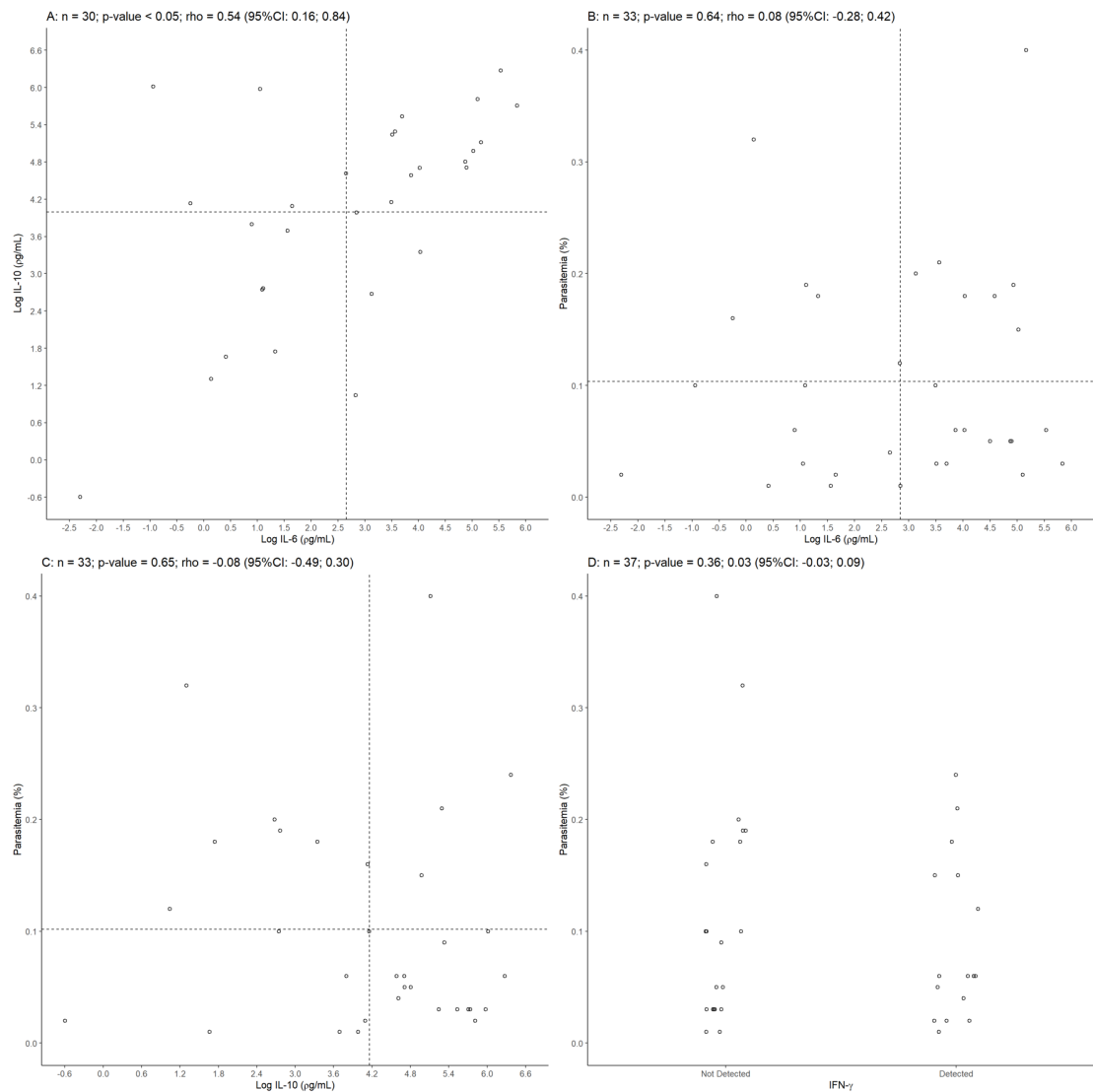
**with *P. vivax*.** (A) No statistical correlation was observed when rosetting rates were compared with platelet (Pearson correlation coefficient  $r = 0.09$ ,  $p = 0.60$ ,  $n = 38$ ) or (B) haematocrit levels (Pearson correlation coefficient  $r = -0.06$ ,  $p = 0.70$ ,  $n = 38$ ) of patients infected with *P. vivax*.



**Supplementary Figure S3. (A)** The binding of IgM and **(B)** IgG to red blood cells (Spearman's correlation coefficient  $\rho=0.16$ ,  $p = 0.38$ ,  $n = 32$ , and  $\rho= 0.10$ ,  $p = 0.58$ ,  $n = 35$ , respectively).



**Supplementary Figure S4 - Correlation between cytokine levels and parasitemia.** (A) Correlation between IL-6 and IL-10 plasmatic levels (Spearman's test,  $\rho = 0.54$ ,  $p < 0.05$ ,  $n = 30$ ). (B) Correlation between log IL-6 and parasitemia (Spearman's test,  $\rho = 0.08$ ,  $p = 0.64$ ,  $n = 33$ ). (C) Correlation between log IL-10 and parasitemia (Spearman's test,  $\rho = 0.08$ ,  $p = 0.65$ ,  $n = 30$ ). (D) Parasitemia in patients with detectable or not detectable IFN- $\gamma$  (Student's t-test,  $p = 0.36$  and  $n = 37$ ).



**Supplementary Figure S5 - Representative images of *P. vivax* rosettes.** Parasites were stained with acridine orange and visualized in optical microscopy. **(A)** Non-rosetting *P. vivax* parasite bound to only one red blood cell (RBC), not characterizing a rosette. **(B-C)** More than two non-infected RBCs binding to an infected RBC, forming a rosette.

