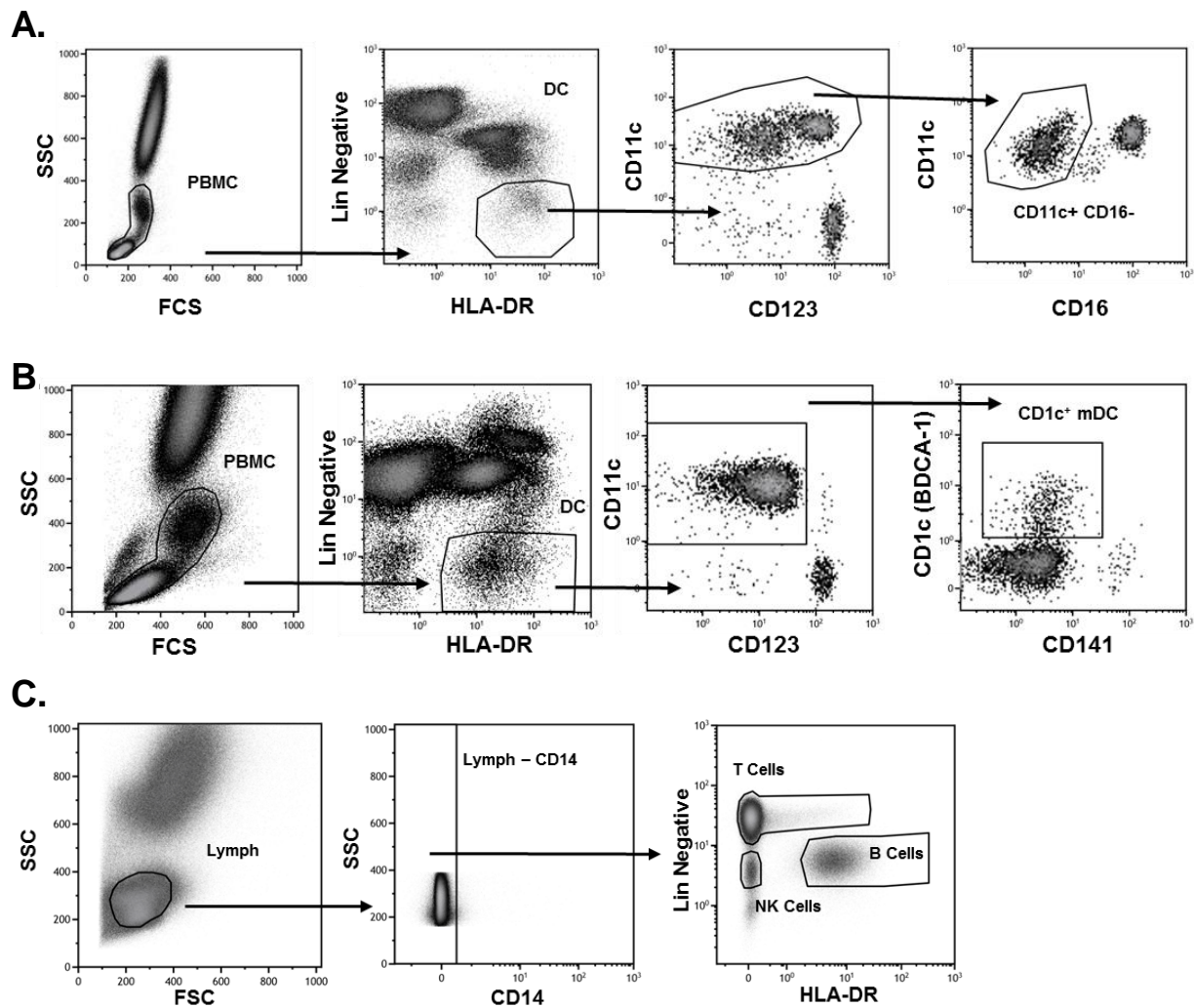


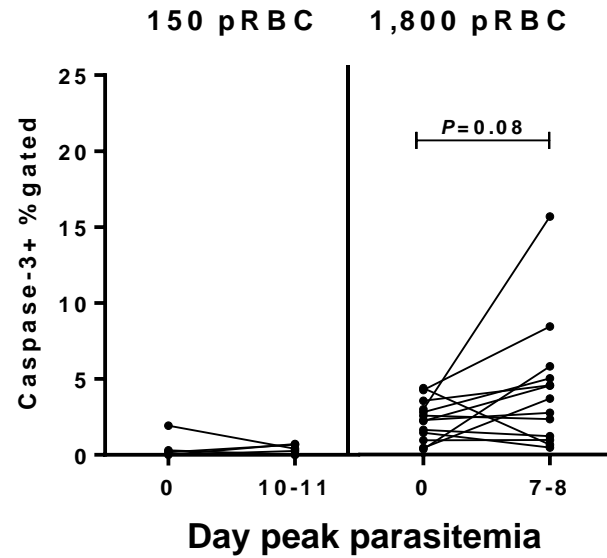
Supplementary Table 1: Longitudinal cell counts in 150 and 1,800 pRBC infection.

Values show the median and [interquartile range]. * significance $p \leq 0.05$, ** $p \leq 0.005$, *** $p < 0.0001$ compared to day 0 (baseline).

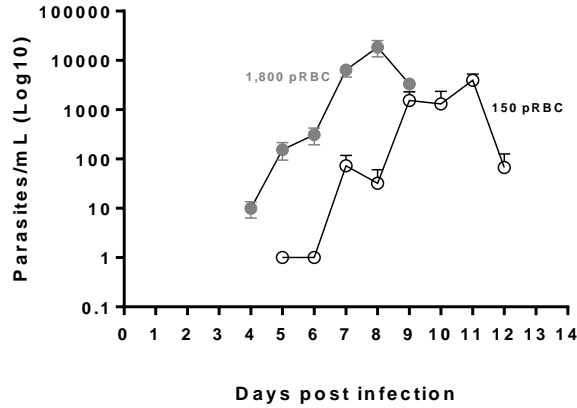
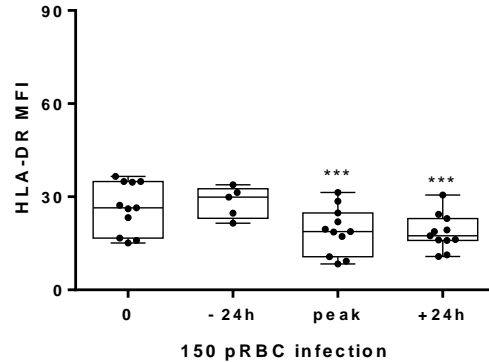
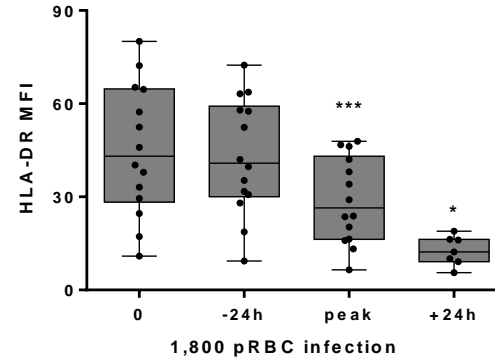
| | 150 pRBC | | | | | | 1,800 pRBC | | | | |
|---|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|------------------|
| | Day 0 | Day 7 | Day 9 | Day 10 | Day 11 | 24h post Rx | Day 0 | Day 6 | Day 7 | Day 8 | 24h post Rx |
| Participants | 6 | 6 | 6 | 6 | 6 | 6 | 21 | 7 | 21 | 14 | 14 |
| WCC (10^3/mL) | 7.35 [6.1-8.0] | 6.75 [6.4-7.4] | 6.95 [6.1-7.8] | 6.9 [6.4-7.4] | 6.1 [5.6-7.2] | 6.2 [5.0-7.2] | 5.5 [4.8-6.5] | 5.8 [4.5-9.3] | 5.75 [5.0-6.4] | 5.0 [4.1-6.3] | 5.0* [3.9-5.6] |
| Monocyte (10^3/mL) | 0.3 [0.9-0.4] | 0.88* [0.6-1.3] | 0.48 [0.3-0.6] | 0.55 [0.3-0.7] | 0.68 [0.5-1.3] | 0.4 [0.2-0.6] | 0.46 [0.4-0.6] | 0.40 [0.3-0.6] | 0.45 [0.4-0.6] | 0.50 [0.4-0.7] | 0.50 [0.3-0.5] |
| Lymphocyte (10^3/mL) | 2.1 [1.7-2.3] | 2.05 [1.9-2.6] | 2.15 [1.9-2.6] | 2.05 [2.0-2.3] | 1.85 [1.5-2.1] | 1.55 [1.3-1.8] | 1.98 [1.6-2.3] | 2.1 [1.8-2.2] | 1.8 [1.6-1.9] | 1.4** [1.2-1.8] | 1.2*** [0.8-1.7] |
| CD4⁺ T cells/ μL blood | 843 [724-1112] | 891 [766-1200] | 926 [801-1169] | 945 [844-1033] | 771 [712-944] | 734 [530-806] | 800 [687-1100] | 973 [673-1101] | 798 [597-1012] | 727** [517-808] | 505*** [425-753] |
| B cells/ μL blood | 247 [171-345] | 246 [170-355] | 292 [172-403] | 278 [182-373] | 254 [159-339] | 158 [120-300] | 263 [186-382] | 274 [212-359] | 277 [152-323] | 251 [119-448] | 167*** [86-229] |
| NK cells/ μL blood | 218 [97-273] | 195 [111-302] | 235 [190-370] | 215 [164-248] | 144 [91-221] | 165 [105-276] | 114 [75-126] | 131 [119-197] | 92 [67-196] | 47* [22-119] | 27*** [16-90] |



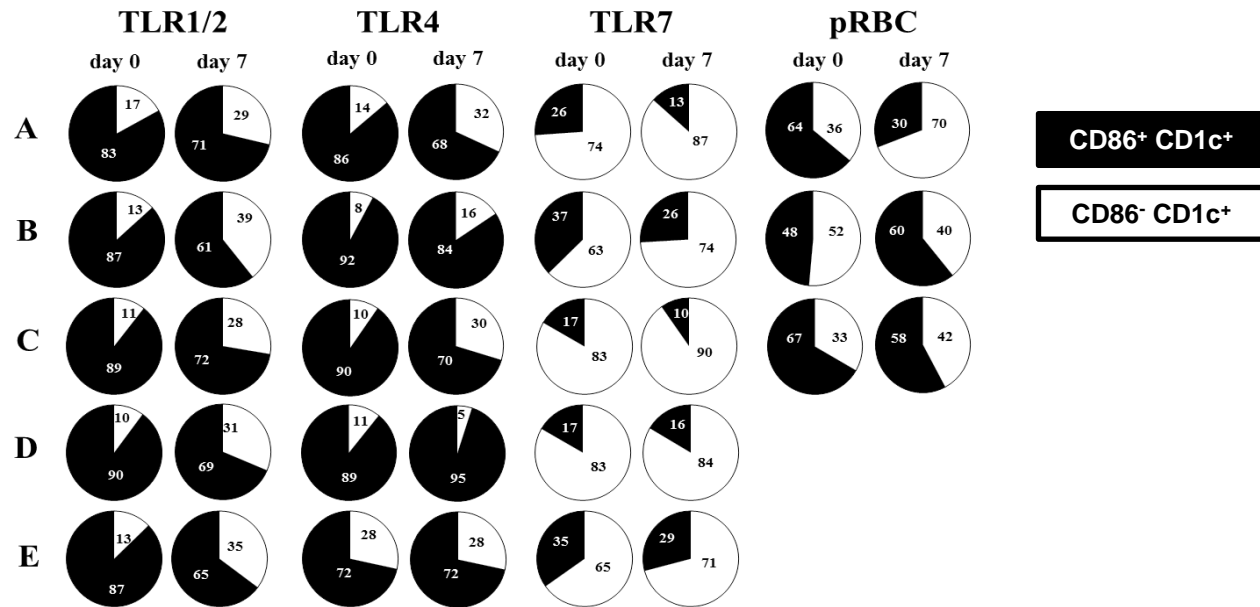
S1 Fig. CD1c⁺ mDC whole blood gating strategy. **A.** In the 150 pRBC cohort CD1c⁺ mDC were identified as negative for lineage markers (CD3, 14, 19, 20, 56 and 34), HLA-DR⁺ (2nd panel), CD11c⁺ (3rd panel), CD16⁻ (4th panel), back gating was also used to ensure CD11c⁺ CD16⁻ cells were not CD141⁺ (data not shown). **B.** In the 1,800 pRBC cohort CD1c⁺ mDC were identified as negative for lineage markers (CD3, 14, 19, 20, 56 and 34), HLA-DR⁺ (2nd panel), CD11c⁺ (3rd panel) and CD1c⁺ (4th panel). **C.** T cells, B cells and NK cells were gated by FSC and SSC properties (left panel), CD14 negative (middle panel) and differentiated by HLA-DR expression (right panel).



S2 Fig. Active caspase-3 staining. Percentage of CD1c⁺ mDC positive for active caspase-3 after 150 pRBC (12 participants) or 1,800 pRBC (13 participants) experimental infection. The Wilcoxon matched-paired test was used for comparison between day 0 and day 10-11 or day 7-8.

A.**B.****C.**

S3 Fig. Longitudinal HLA-DR expression. **A.** Parasitemia of participants whom longitudinal HLA-DR expression on CD1c⁺ mDC was assessed. Mean parasitemia +/- standard error is presented, 150 pRBC (white circles) or 1,800 pRBC (grey circles). **B.** Longitudinal HLA-DR MFI on CD1c⁺ mDC post 150 pRBC infection (n=12), -24h mean parasitemia 1307/mL, median parasitemia 87/ mL [IQR 1-719]. **C.** Longitudinal HLA-DR MFI on CD1c⁺ mDC post 1,800 pRBC infection (n=14; except +24h, n=7), -24h mean parasitemia 6651/mL, median parasitemia 4511 [943-12900]. Box plot show the minimum, maximum, median and interquartile range for data from all subjects. The Wilcoxon matched-paired test was used for comparison between day 0, -24h, peak and +24h.



S4 Fig. CD86 expression on CD1c⁺ mDC producing TNF to TLR ligands or pRBC. Pie charts show the proportion of TNF producing CD1c⁺ mDC which are CD86 positive (black fill) or CD86 negative (white fill) in participants administered 1,800 pRBC who had adequate CD1c⁺ mDC TNF production (≥ 30 events). CD86⁻ CD1c⁺ mDC increased in proportion on day 7, at peak parasitemia after TLR stimulation (exception pRBC), $p=0.06$. Each line of pie charts (A-E) represents one subject participating in the trial. Only A-C had adequate TNF events to be analysed for CD86 expression following pRBC stimulation. The Wilcoxon matched-paired test was used for comparison between day 0 and day 7.