

Description of additional supplementary files

Supplementary Data 1

Significantly differentially expressed genes in all cell types and conditions identified using the hurdle (two-part generalized regression) model from the MAST package. P-values, logfoldchange values, and false discovery rate (FDR) obtained from Benjamini-Hochberg method are reported.

Supplementary Data 2

Significant GO-terms for HBMEC in iRBC-egress, schizont and trophozoite conditions and for pericytes and astrocytes in iRBC-egress condition. P-values, Benjamini-Hochberg adjusted p-values, and upregulated genes in respective GO-term are provided.

Supplementary Data 3

List of oligonucleotides used as primer sequences in qPCR experiments on 3D-BBB microvessels or the *P. falciparum* HB3var03 line.