

## **An Automated Live Imaging Platform for Studying Merozoite Egress-Invasion in Malaria Cultures**

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Automated Imaging of Egress-Invasion

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## Captions for Supplementary Movie Files

Supplementary Movie 1 (filename Supplementary\_Movie\_1\_new.avi):

Schizont exhibiting quiescent (Q-type) pre-egress behaviour. Cell exists in this form, unchanging, for up to 60 minutes prior to egress.

Supplementary Movie 2 (filename Supplementary\_Movie\_2.avi):

Time-lapse video (one frame = 60 seconds) of a dynamic (D-type) schizont form, showing extreme morphological changes over the final 10 minutes prior to egress.

Supplementary Movie 3 (filename Supplementary\_Movie\_3.avi):

Schizont exhibiting dynamic (D-type) pre-egress behaviour, including extreme morphological changes, bulging and exovesiculation, shown in real time about 10 seconds prior to egress.

Supplementary Movie 4 (filename Supplementary\_Movie\_4.avi):

Schizont exhibiting dynamic (D-type) pre-egress behaviour, specifically the clear retraction of a large vesicle structure occurring 2 seconds prior to egress.

Supplementary Movie 5 (filename Supplementary\_Movie\_5.avi):

Egress event, shown in real time for an example quiescent (Q-type) schizont form. Eversion ("curling") of the host cell membrane can be observed during the egress process. Egress commences at frame 206.

Supplementary Movie 6 (filename Supplementary\_Movie\_6.avi):

Time-lapse video (one frame = one second) of an egress-invasion sequence from a dynamic (D-type) schizont form. Invasion of cell in lower-left of frame occurs at around frame 65. The ring-form of the incorporated parasite is seen variably as a circular outline or dark body following focussing changes resulting from cell motions.