

SUPPLEMENTARY MATERIAL

corresponding to:

Drosophila metamorphosis involves hemocyte mediated macroendocytosis and efferocytosis

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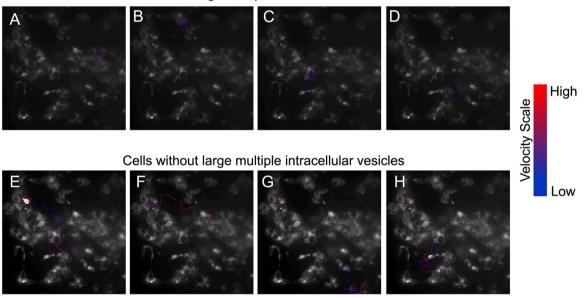
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Full text for this paper is available at: https://doi.org/10.1387/ijdb.190215lm

Supplementary Movie 1. Live imaging employing Light Sheet microscopy of pupal plasmatocyte demonstrate an engulfment of a cargo of $\sim 20 \,\mu m$ in diameter from surrounding space via macro-endocytosis.

Supplementary Movie 2. Live imaging employing Light Sheet microscopy reveals the sequence that a bulky plasmatocyte with large intracellular vesicles employs to extend pseudopodia in order to phagocytose cargo of 5 µm in diameter.

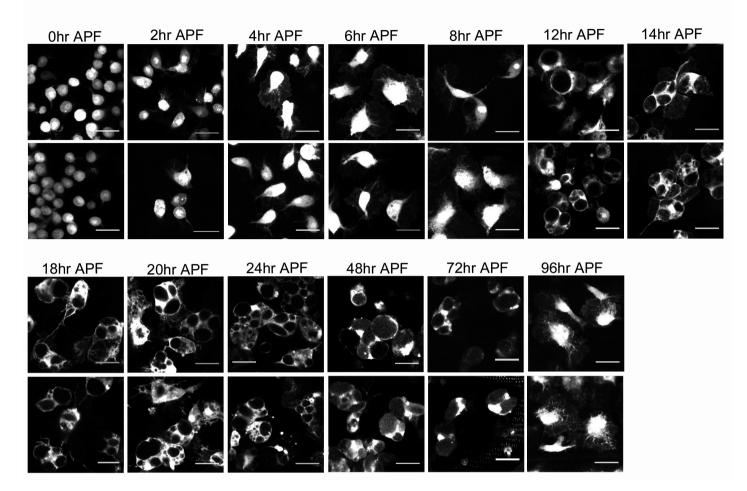
Supplementary Movie 3. Live imaging shows the directed migration of hemocytes to the dying DEOM.



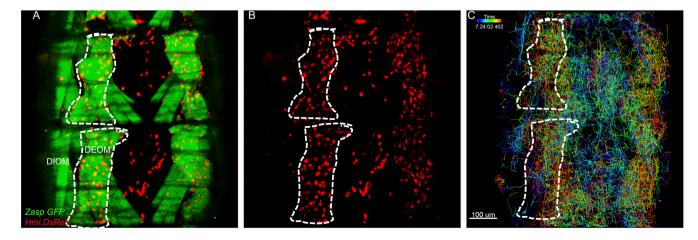
Cells with large multiple intracellular vesicles

Supplementary Fig. S1. Velocity heat map for big cells and small cells. To represent the difference in velocity of two different migrating hemocytes, Velocity heat map was created using four representative cells of each group (refer to Figure 10-P). The color-coded 'velocity scale' denote high velocity as red and lower one with blue. During the entire migration path, the red highlighted region depicts the cells travelling with highest velocity whereas the blue showed where the cells lowered down the speed. Compared to hemocytes with large intracellular vesicles (A-D), the small size cells showed much longer distance covered with high velocity (E-H).

hml-Gal4>UAS-GFP



Supplementary Fig. S2. Pupal hemocytes undergo transition in their morphology. *High-resolution image of the pupal plasmatocytes (visualized by* hml-Gal4.UAS-GFP) *throughtout the entire span of pupation (0 h after puparium formation (APF) to 96 h APF). Our results suggest that at the rounded hemocytes in 0 h APF changed over to irregularly shaped cell loaded with multiple intracellular vesicles by 24 h APF. These large vesicle laden hemocytes were observed majorly during 24 and 48 h APF, but few persisted till 72 h APF. By 96 h APF, the hemocytes were majorly devoid of any apparent intracellular vesicles.*



Supplementary Fig. S3.Time Projection map of the hemocyte recruitment on the dying DEOM. The color codes represent different time point of the migrating cells like in 'time index' the blue shows the initial time (0 h APF) where cells were located majorly at the center where as red shows the final destination of cells which was the dying DEOM around 7 h APF. The time projection map of hemocytes (C) clearly revealed that the cells migrated over time and finally the cells were colonized over the apoptotic DEOM. See also Supplementary Movie 3