

Description of Additional Supplementary Files

Filename: Supplementary Movie 1_C. neoformans timelapse

Description: Melanization response in hemolymph in response to *C. neoformans*.

Filename: Supplementary Movie 2_C. neoformans timelapse

Description: Melanization response in hemolymph in response to *C. neoformans*

Filename: Supplementary Movie 3_Melanin Ghost vs heat killed

Description: Melanization response in hemolymph in response to heat-killed *C. neoformans* and isolated fungal melanins.

Filename: Supplementary Movie 4_Melanin ghost without hemocytes

Description: Melanization response in hemolymph in response to isolated fungal melanins.

Filename: Supplementary Movie 5_Melanin ghost timelapse

Description: Melanization response in hemolymph in response to isolated fungal melanin.

Filename: Supplementary Movie 6_Hemocyte-ghost interactions

Description: Timelapse of the interactions between the insect hemocytes and isolated fungal melanins

Filename: Supplementary Movie 7_In situ nodule projection

Description: 3D Rendering of a fungal nodule within *G. mellonella* using different Z-stacked microscopy images.

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Filename: Supplementary Movie 8_ Melanin Bloom Candida

Description: Melanization response in hemolymph in response to *C. albicans* yeast and hyphal forms.

Filename: Supplementary Movie 9_ *Candida albicans* escape

Description: Examples of *C. albicans* surviving and growing through immune melanin-encapsulation.

Filename: Supplementary Movie 10_ *Candida auris* pseudohyphae.

Description: Melanization response in hemolymph in response to *C. auris* yeast and pseudohyphal forms.

Filename: Supplementary Movie 11_ *C. neoformans* Anticoagulation Buffer

Description: Timelapse of hemocytes and hemolymph interacting with *C. neoformans* in an anticoagulation buffer to prevent coagulation and melanization.

Filename: Supplementary Movie 12_ No fungus timelapse

Description: Timelapse of hemocytes and hemolymph with no fungus or fungal component added.