

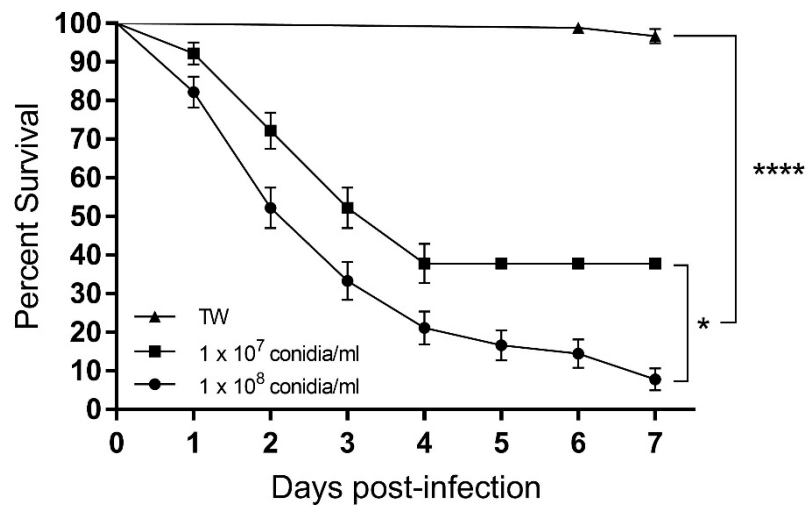
**Table S1.** Kaplan-Meier analysis of all survival curves (all treatments), pair-wise comparisons of *M. anisopliae*-treated blood-fed and sucrose-fed female *A. aegypti* and comparisons of fungus-treated insects to their respective controls.

Treatments	All Treatments + Controls	Blood fed +Fungus $\nu$ Sucrose fed + Fungus	Blood fed +Fungus $\nu$ Blood fed controls	Sucrose fed +Fungus $\nu$ Sucrose fed controls
$\chi^2$	26.22	24.07	2.19	14.14
<i>p</i> value	< 0.0001	< 0.0001	0.1381	0.0002
df	3	1	1	1

**Table S2.** Summary of results from analysis of the immune related genes with different feeding regimes following fungal infection.

Tissues	MIDGUT		FAT BODY	
Condition / Genes	Suc + F	Blood + F	Suc + F	Blood + F
Cactus	+	-	+	-
REL 1	+	+	-	+
REL 2	-	+	-	+
IMD	+	+	-	+
CASPAR	-	+	-	-
PIAS	-	-	+	-
STAT	+	-	+	+
Defensin A	-	+	-	+
Cecropin G	+	+	-	+
Attacin	-	-	+	+
<b>Index</b>	<b>5</b>	<b>6</b>	<b>4</b>	<b>7</b>

**Suc + F:** sucrose fed and exposed to fungus; **Blood + F:** blood fed and exposed to fungus; **Index:** sum of positives.



**Figure S1.** Effects of *Metarhizium anisopliae* conidia on the survival rates of adult female *Aedes aegypti* exposed to two concentrations of the fungus. TW – sucrose-fed adult female *A. aegypti* treated with Tween 80 (control);  $1 \times 10^7$  – sucrose-fed adult female *A. aegypti* infected with *M. anisopliae* conidial suspensions ( $1 \times 10^7$  conidia/mL);  $1 \times 10^8$  – sucrose-fed adult female *A. aegypti* and infected with *M. anisopliae* conidial suspensions ( $1 \times 10^8$  conidia/mL).  $n = 45$  insects per treatment. The graph represents three independent experiments and data were analyzed with Kaplan-Meier survival analysis (GraphPad Prism 6 software). Error bars indicate the SEM. Conidia at both concentrations significantly increased mosquitoes mortality compared to each other and to the control treatment (\*:  $p < 0.05$ ; \*\*\*\*  $p < 0.0001$ ).