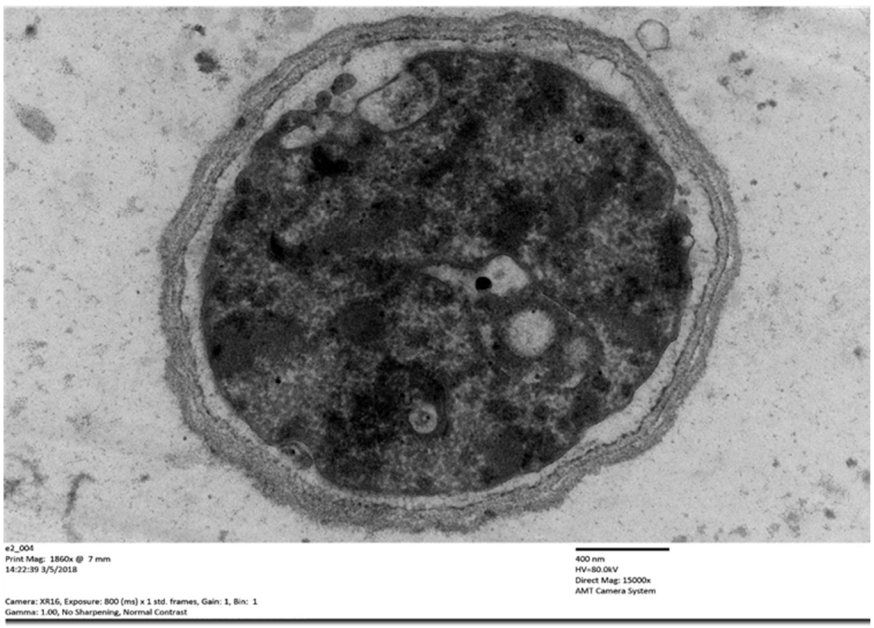
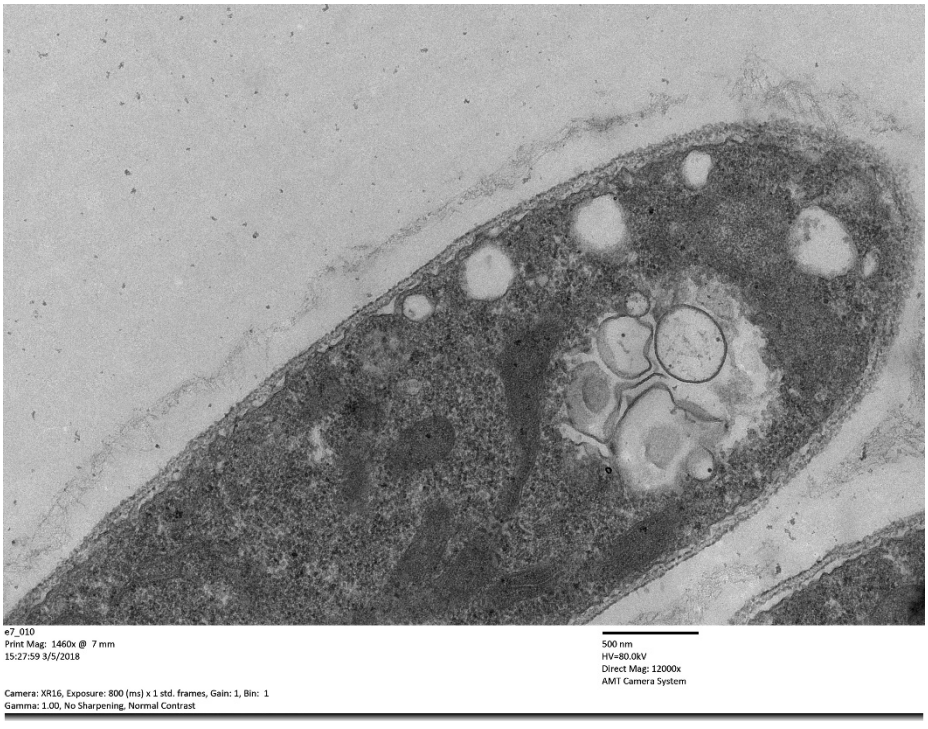
Supporting Information S11 Fig. Full size TEM micrographs used for the photoplate in Fig 3.

Representative TEM micrographs showing the hyphal ultrastructure of strains including the wild-type strain of *T. guizhouense* (Tg), HFB2::mRFP-overexpressing strains of Tg, HFB4-overexpressing *T. harzianum* (Th), or hyphae of Tg and Th lacking HFB4 and HFB10. All images of the aerial hyphae were obtained from a two-day-old colony. Representative images were selected from a total of 695 images obtained for Tg (361) and Th (334). Samples for TEM were prepared with at least two mutants and 30 images studied per genotype. Mutants are listed in Table 2.

Tg



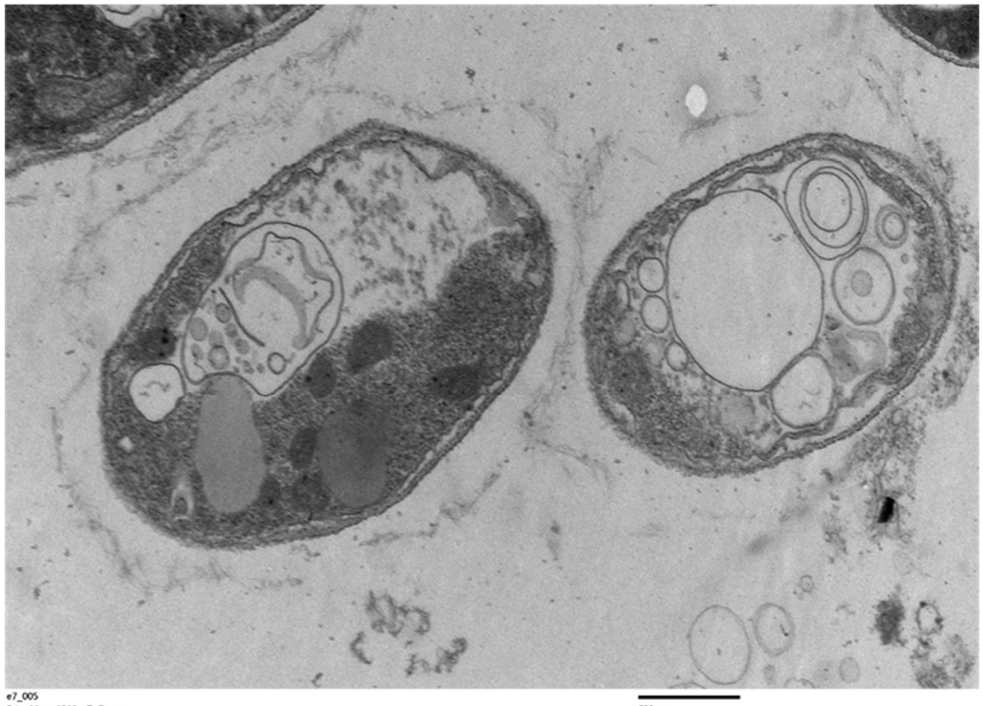
$_{Tg}$OE*hfb2*::*mrfp*



e7_006
Print Mag: 1210x @ 7 mm
15:23:44 3/5/2018

Camera: XR16, Exposure: 800 (ms) x 1 std. frames, Gain: 1, Bin: 1
Gamma: 1.00, No Sharpening, Normal Contrast

600 nm
HV=80.0kV
Direct Mag: 10000x
AMT Camera System



e7_005
Print Mag: 1210x @ 7 mm
15:23:16 3/5/2018

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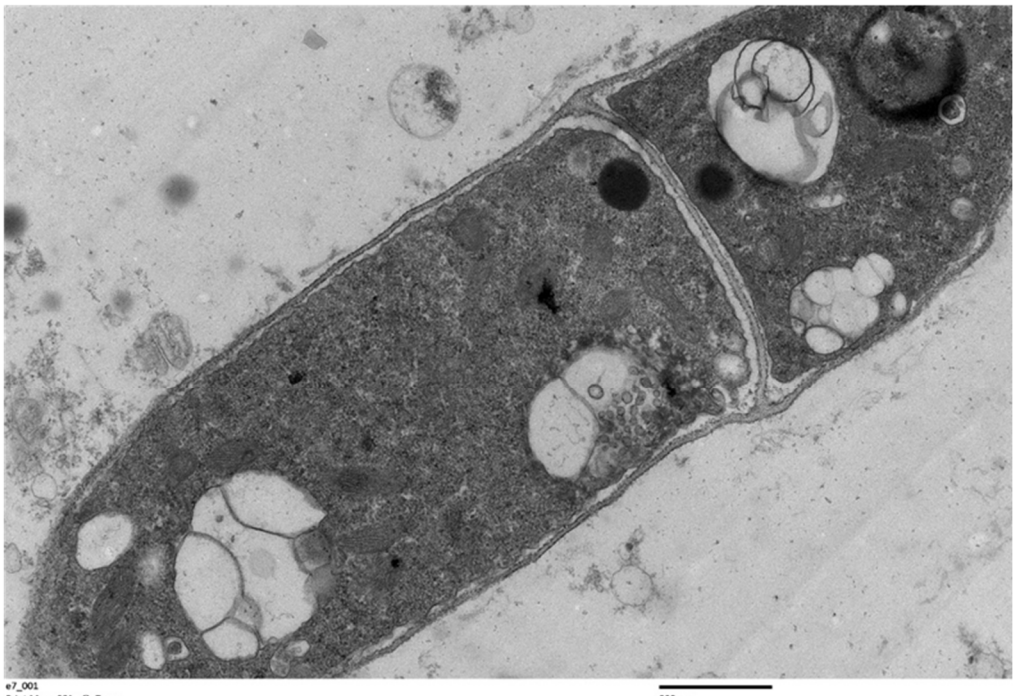
Gamma: 1.00, No Sharpening, Normal Contrast

600 nm
HV=80.0kV
Direct Mag: 10000x
AMT Camera System

e7_011
Print Mag: 1460x @ 7 mm
15:28:43 3/5/2018

Camera: XR16, Exposure: 800 (ms) x 1 std. frames, Gain: 1, Bin: 1
Gamma: 1.00, No Sharpening, Normal Contrast

500 nm
HV=80.0kV
Direct Mag: 12000x
AMT Camera System



e7_001
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15:18:54 3/5/2018

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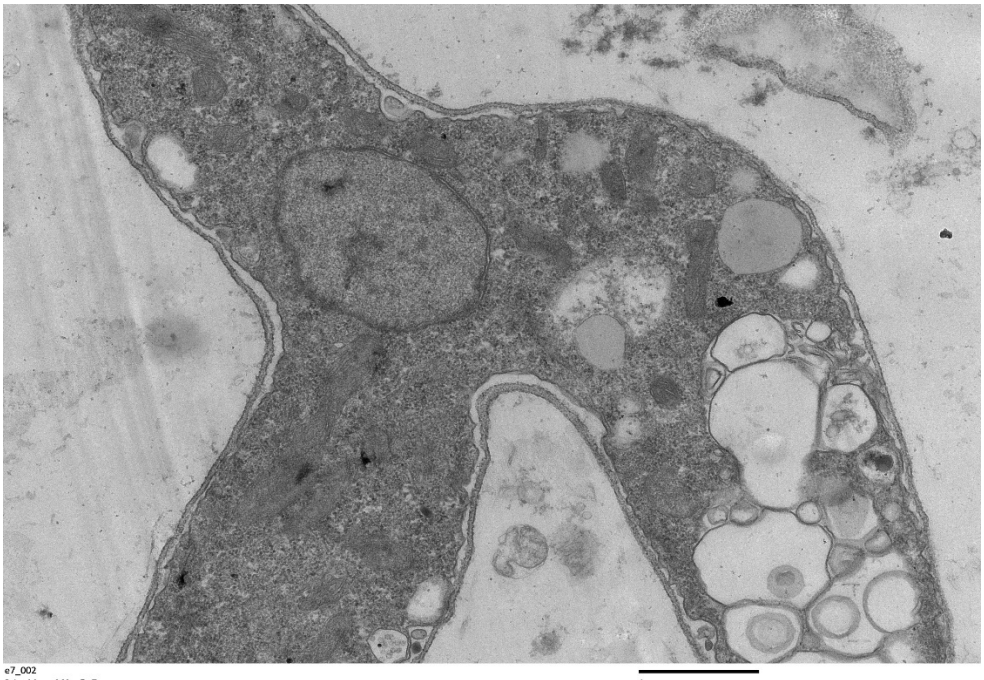
Gamma: 1.00, No Sharpening, Normal Contrast

800 nm
HV=80.0kV
Direct Mag: 8000x
AMT Camera System



e7_002
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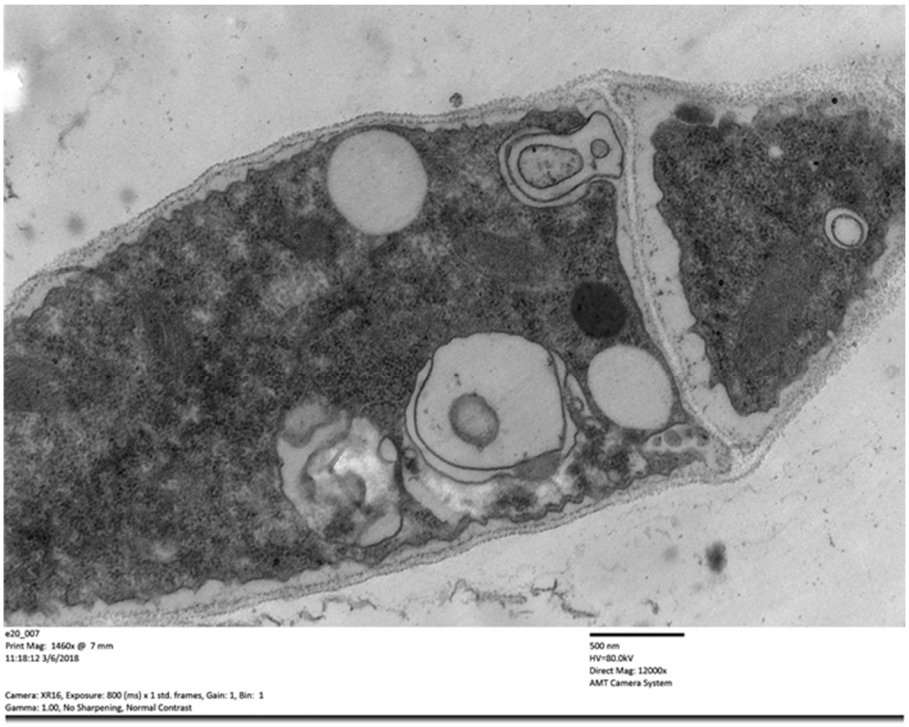
15:20:00 3/5/2018

Camera: XR16, Exposure: 800 (ms) x 1 std. frames, Gain: 1, Bin: 1
Gamma: 1.00, No Sharpening, Normal Contrast

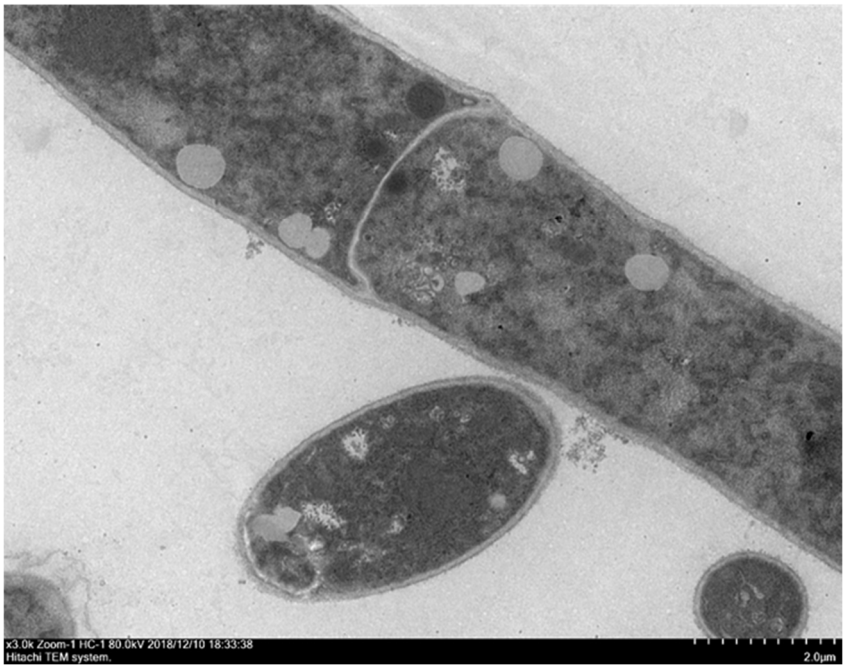
1 µm
HV=80.0kV
Direct Mag: 7000x
AMT Camera System

Th OE*hfb4*


e20_007
Print Mag: 1460x @ 7 mm
11:18:12 3/6/2018
Camera: XR16, Exposure: 800 (ms) x 1 std. frames, Gain: 1, Bin: 1
Gamma: 1.00, No Sharpening, Normal Contrast
500 nm
HV=80.0kV
Direct Mag: 12000x
AMT Camera System


e15_009
Print Mag: 737x @ 7 mm
10:22:01 3/6/2018
Camera: XR16, Exposure: 800 (ms) x 1 std. frames, Gain: 1, Bin: 1
Gamma: 1.00, No Sharpening, Normal Contrast
1 µm
HV=80.0kV
Direct Mag: 6000x
AMT Camera System

$_{Tg}\Delta hfb4$-$_{Tg}\Delta hfb10$



$_{Th}\Delta hfb4$-$_{Th}\Delta hfb10$