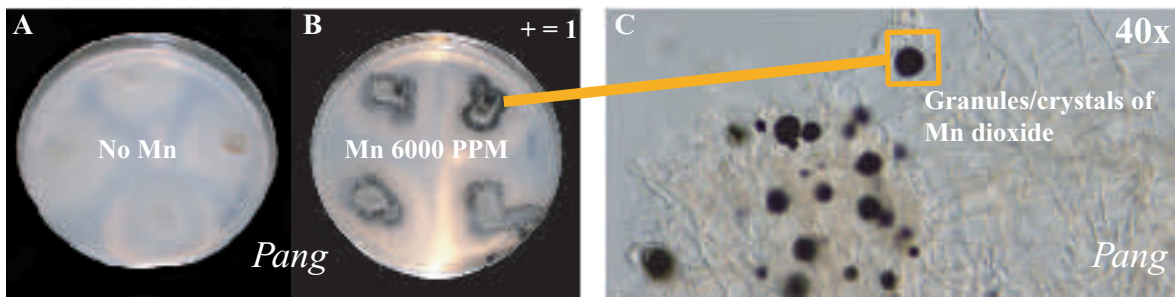
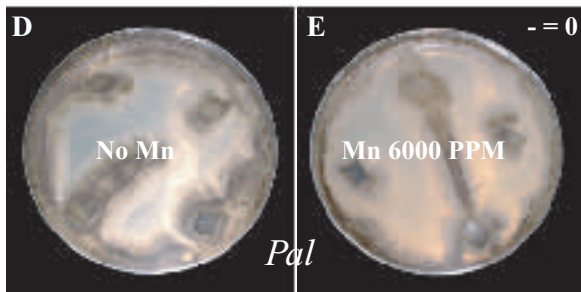


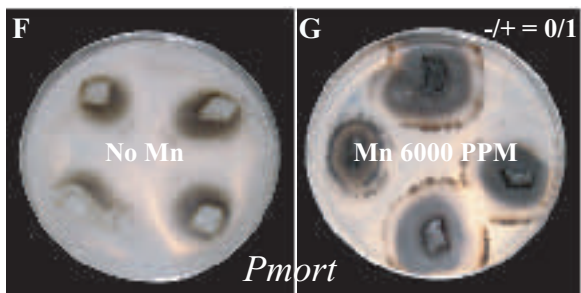
## Manganese oxidation by Petri disease fungi as a novel taxonomic character.



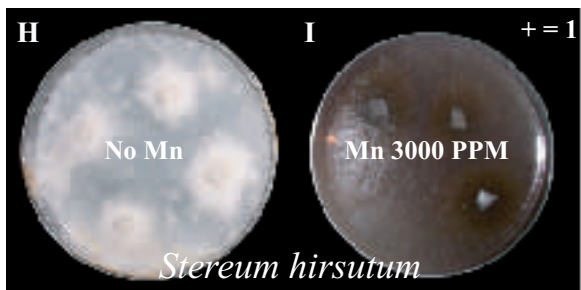
A--C.) *Phaeoacremonium angustius* culture 316 (Pang). Crystals are visible in PDA amended with Mn sulfate, but not control (no Mn sulfate). No brown pigment production. Assay is scored as positive for Mn oxidation (1).



D--E.) *Phaeoacremonium aleophilum* culture 287 (Pal). No pigment production or crystals are visible in PDA amended with Mn sulfate. Assay is scored as negative for Mn oxidation (0).



F--G.) *Phaeoacremonium mortoniae* culture 170 (Pmort). Brown rust colored reaction near hyphal tips in PDA amended with Mn sulfate but no crystals of Mn dioxide visible. This reaction is scored as -/+ (0/1) result because cultures also produced a brown pigment in the control (PDA with no Mn sulfate). However in the control, the pigment was not produced near the hyphal tips. The ex-type culture of *P. mortoniae* did not produce pigment near the hyphal tips.



H--I.) *Stereum hirsutum* culture HHB-4401-Sp. Rust colored pigment production in culture amended with Mn sulfate, but not control. Assay is scored as positive for Mn oxidation (1). *Stereum hirsutum* has a well characterized Mn-dependent peroxidase involved in lignin degradation. Note the strong reaction in the assay.

**Conclusion:** Petri disease fungi show a differential response to Mn sulfate amended media that could be utilized in taxonomic studies.