

Supplementary Table 1. Species employed for bioinformatic analyses in the present study

Species	JGI code	Phylum name	Class name	Reference / Source
<i>Cryptococcus neoformans</i>	Cryne_H99_1	Basidiomycota	Tremellomycetes	(Loftus et al., 2005)
<i>Schizophyllum commune</i>	Schco_LoeD	Basidiomycota	Agaricomycetes	(Ohm et al., 2010)
<i>Pleurotus ostreatus</i>	PleosPC15_2	Basidiomycota	Agaricomycetes	(Alfaro et al., 2016)
<i>Coprinopsis cinerea</i>	Copci1	Basidiomycota	Agaricomycetes	(Stajich et al., 2010)
<i>Laccaria bicolor</i>	Lacbi2	Basidiomycota	Agaricomycetes	(Martin et al., 2008)
<i>Amanita muscaria</i>	Amamu1	Basidiomycota	Agaricomycetes	(Kohler et al., 2015)
<i>Ustilago maydis</i>	Ustma1	Basidiomycota	Ustilaginomycetes	(Kamper et al., 2006)
<i>Puccinia graminis</i>	Pucgr2	Basidiomycota	Pucciniomycetes	(Duplessis et al., 2011)
<i>Magnaporthe grisea</i>	Maggr1	Ascomycota	Sordariomycetes	(Dean et al., 2005)
<i>Neurospora crassa</i>	Neucr2	Ascomycota	Sordariomycetes	(Galagan et al., 2003)
<i>Colletotrichum graminicola</i>	Colgr1	Ascomycota	Sordariomycetes	(O'Connell et al., 2012)
<i>Fusarium graminearum</i>	Fusgr1	Ascomycota	Sordariomycetes	(Cuomo et al., 2007)
<i>Trichoderma reesei</i>	Trire2	Ascomycota	Sordariomycetes	(Martinez et al., 2008)
<i>Botrytis cinerea</i>	Botci1	Ascomycota	Leotiomycetes	(Amsellem et al., 2011)
<i>Xylona heveae</i>	Xylhe1	Ascomycota	Xylonomycetes	(Gazis et al., 2016)
<i>Stagonospora nodorum</i>	Stano2	Ascomycota	Dothideomycetes	(Hane et al., 2007)
<i>Leptosphaeria maculans</i>	Lepmu1	Ascomycota	Dothideomycetes	(Rouxel et al., 2011)
<i>Cochliobolus heterostrophus</i>	CocheC4_1	Ascomycota	Dothideomycetes	(Condon et al., 2013)
<i>Alternaria alternata</i>	Altal1	Ascomycota	Dothideomycetes	(Zeiner et al., 2016)
<i>Cladosporium fulvum</i>	Clafu1	Ascomycota	Dothideomycetes	(de Wit et al., 2012)
<i>Histoplasma capsulatum</i>	Hisca1	Ascomycota	Eurotiomycetes	(Sharpton et al., 2009)
<i>Talaromyces marneffei</i>	Talma1_2	Ascomycota	Eurotiomycetes	NCBI
<i>Talaromyces stipitatus</i>	Talst1_2	Ascomycota	Eurotiomycetes	NCBI
<i>Penicillium chrysogenum</i>	Pench1	Ascomycota	Eurotiomycetes	(van den Berg et al., 2008)
<i>Eurotium herbatorum</i>	Eurhe1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus aculeatus</i>	Aspac1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus brasiliensis</i>	Aspbr1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus carbonarius</i>	Aspca3	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus flavus</i>	Aspfl1	Ascomycota	Eurotiomycetes	(Arnaud et al., 2012)
<i>Aspergillus luchuensis</i>	Aspfo1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus fumigatus</i>	Aspfu1	Ascomycota	Eurotiomycetes	(Galagan et al., 2005)
<i>Aspergillus niger</i>	Aspni7	Ascomycota	Eurotiomycetes	(Andersen et al., 2011)
<i>Aspergillus nidulans</i>	Aspnid1	Ascomycota	Eurotiomycetes	(Galagan et al., 2005)
<i>Aspergillus oryzae</i>	Aspor1	Ascomycota	Eurotiomycetes	(Galagan et al., 2005)
<i>Aspergillus sydowii</i>	Aspsy1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus terreus</i>	Aspte1	Ascomycota	Eurotiomycetes	(Arnaud et al., 2012)
<i>Aspergillus tubingensis</i>	Asptu1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus versicolor</i>	Aspve1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus wentii</i>	Aspwe1	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)

<i>Aspergillus zonatus</i>	Aspz01	Ascomycota	Eurotiomycetes	(de Vries et al., 2017)
<i>Aspergillus fischeri</i>	Neofi1	Ascomycota	Eurotiomycetes	(Arnaud et al., 2012)
<i>Monascus ruber</i>	Monru1	Ascomycota	Eurotiomycetes	JGI, (Grigoriev et al., 2014)
<i>Cladonia grayi</i>	Clagr3	Ascomycota	Lecanoromycetes	JGI, (Grigoriev et al., 2014)
<i>Arthrotrichia oligospora</i>	Artol1	Ascomycota	Orbiliomycetes	(Yang et al., 2011)
<i>Tuber melanosporum</i>	Tubme1	Ascomycota	Pezizomycetes	(Martin et al., 2010)
<i>Saccharomyces cerevisiae</i>	Sacce1	Ascomycota	Saccharomycetes	(Goffeau et al., 1996)
<i>Candida albicans</i>	Canalb1	Ascomycota	Saccharomycetes	(Jones et al., 2004)
<i>Pichia pastoris</i>	Picpa1	Ascomycota	Saccharomycetes	(De Schutter et al., 2009)
<i>Schizosaccharomyces pombe</i>	Schpo1	Ascomycota	Schizosaccharomycetes	(Wood et al., 2002)
<i>Phycomyces blakesleeana</i>	Phybl2	Zygomycota	Incertae sedis	(Corrochano et al., 2016)
<i>Rhizopus delemar</i>	Rihor3	Zygomycota	Incertae sedis	(Ma et al., 2009)
<i>Mucor circinelloides</i>	Mucci2	Zygomycota	Incertae sedis	(Corrochano et al., 2016)

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