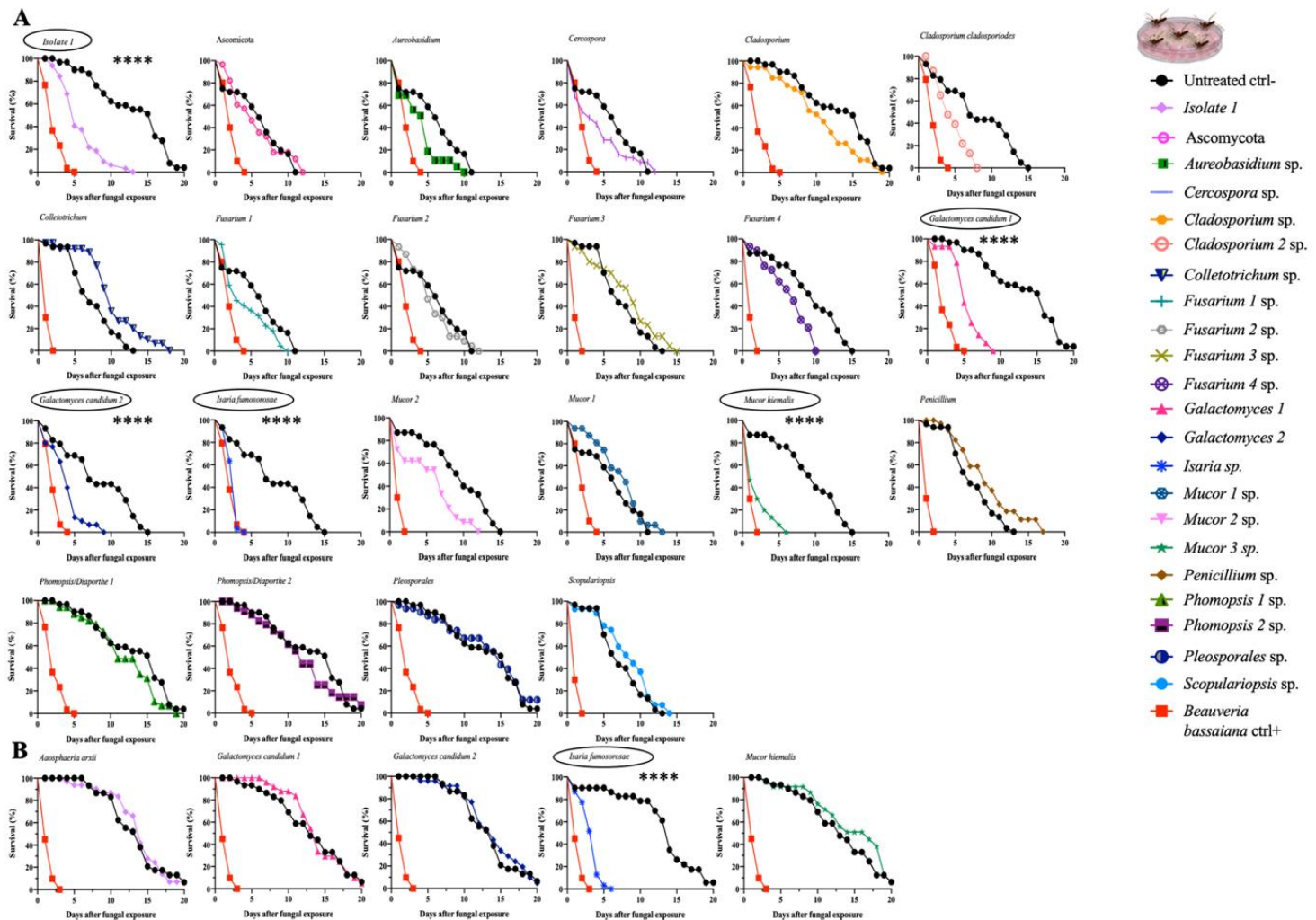


Supplementary Table 1: List of sequence primers and combination primers, used for ITS, LSU and SSU amplification.

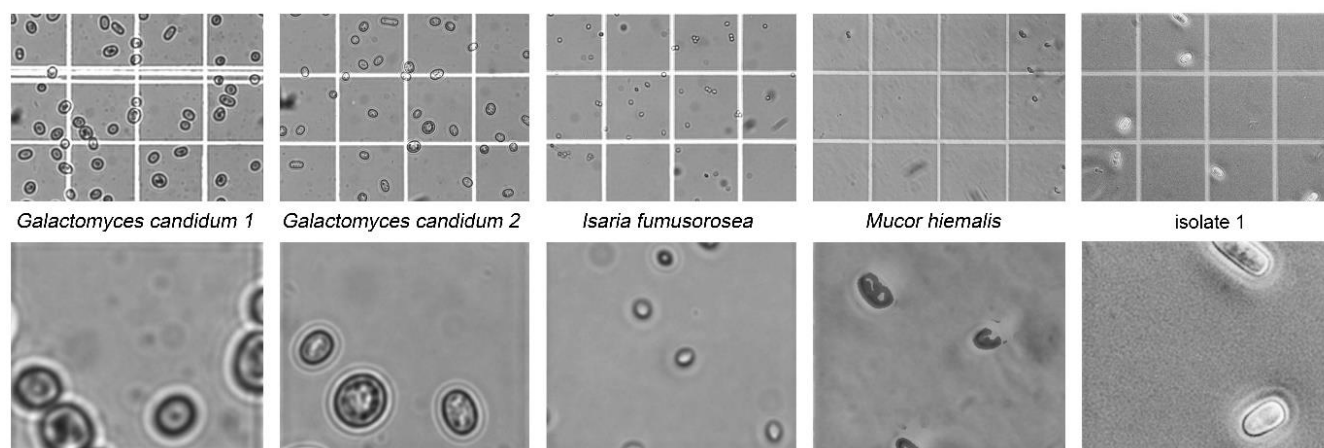
Gene	Primer Name	Sequence
ITS	ITS1 Forward	CTHGGTCATTTAGAGGAASTAA
ITS	ITS3 Forward	AHCGATGAAGAACRYAG
ITS	ITS4 Reverse	TCCTCCGCTTWTTGWTWTGC
LSU	LROR Forward	ACC CGC TGA ACT TAA GC
LSU	LR6 Reverse	CGC CAG TTC TGC TTA CC)
SSU	NS1 Forward	GTAGTC ATATGCTTGTCTC
SSU	NS4 Reverse	ACC CGC TGA ACT TAA GC
	Fungal isolate	Primers used for ITS amplification and sequencing
	<i>Isolate 1</i>	ITS3-ITS4
	<i>Ascomycota</i>	ITS1-ITS4
	<i>Aureobasidium</i>	ITS3-ITS4
	<i>Cercospora</i>	ITS1-ITS4
	<i>Cladosporium</i>	ITS3-ITS4
	<i>Cladosporium 2</i>	ITS1-ITS4
	<i>Colletotrichum</i>	ITS3-ITS4
	<i>Fusarium 1</i>	ITS3-ITS4
	<i>Fusarium 2</i>	ITS1-ITS4
	<i>Fusarium 3</i>	ITS1-ITS4
	<i>Fusarium 4</i>	ITS1-ITS4
	<i>Galactomyces 1</i>	ITS1-ITS4
	<i>Galactomyces 2</i>	ITS1-ITS4
	<i>Isaria</i>	ITS3-ITS4
	<i>Mucor 1</i>	ITS3-ITS4
	<i>Mucor 2</i>	ITS1-ITS4
	<i>Mucor 3</i>	ITS1-ITS4
	<i>Penicillium</i>	ITS1-ITS4
	<i>Phomopsis 1</i>	ITS3-ITS4
	<i>Phomopsis 2</i>	ITS1-ITS4
	<i>Pleosporales</i>	ITS3-ITS4
	<i>Scopulariopsis</i>	ITS3-ITS4

Supplementary Figure 1. Mosquitoes were directly exposed to a 2-weeks-old fungal plate and shaken for 30 seconds, the mosquito survival was monitored for 20 days. Data is here presented for the species *An. gambiae* (A) and *Ae. aegypti* (B). As a negative control, mosquitoes were shaken on a sterile BHI agar and as a positive control on a *B. bassiana* plate. These graphs represent one replicate. Statistical significance of survival was calculated for each fungus compared to its negative control using the long rank Mantel Cox test and p values are presented in Table1.



Supplementary Figure 2. Spore pictures of the 5 most potent fungi.

Spores of the 5 most potent fungi (*Galactomyces candidum* 1 and 2, *Isaria fumusorosea*, *Mucor hiemalis* and isolate 1) were obtained from two week old fungal cultures. PBS was added to the agar plate and the fungi was scraped loose, filtered through glass wool and transferred to Eppendorf tubes. Samples were centrifuged and the supernatants were analysed under bright field microscope. Photos of spores were taken at a 40x magnification using a Leica DM2500 microscope and a DFC310 FX Digital Color Camera (Leica Microsystems).



Supplementary file 1: ITS sequences of the 22 fungal isolates used for Blast search and the generation of phylogenetic trees

Isolate 1

```
GATCATCGAATCTTTGAACGCACATTGCGCCCCTCGGTATTCCGTGGGGCATGCC
TGTTTCGAGCGTCATTTAACCCCTCAAGCCTAGCTTGGTATTGGGTGCTTGTCCCGC
CTCTCGCGCGGCGACTCACCTCAAAGTCATTGGCAGCCCGCATCTCGCCGGCCGT
GAGCGCAGCACAGACGCGCTCTTGGAACGACGGATCGGCTCTCCAAAAGCTTA
TTCAACCACTGACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATAACA
AAAAAGCGGAGGAA
```

Isolate 2: Ascomycota

```
TGCGGAGGGATCATTACTGAGTCTATCTCAAACCCCTTTGTGAACCTTTATAACC
TGTTGCTTCGGCGGCGCGGCCCGGGTCGTGCCCGCCGGTATCATCAGAATCTC
TGTTTCGAACCCGACGATACTTCTGAGTGTCTAAGCGAACTGTAAACCTTTCAA
CAACGGATCTCTTGGCTCCAGCATCGATGAAGAACGCAGCGAAACGCGATATGT
AATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATGGCGCCT
TCCAGTATCCTGGGAGGCATGCCTGTCCGAGCGTCGTTTCAACCCCTCGAGCCCTC
GTGGCCCGGCGTTGGGGATCTGCCAGGCAGGCCCGGAAAACCAAGTGGCGGACC
CGTCCGGGACCTCTCCTTGCGTAGTAGCATCAGCCTCGCATCGGGAGCCGGCGGG
CCTTCCGGCCTCTAAACCCCCACAAGTCCGCTCCGGCGGCATCAAGGTTGACCT
CGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAAGCGGAGGAA
```

Isolate 3: Aureobasidium sp.

ATCATCGAATCTTTGAACGCACATTGCGCCCCCTTGGTATTCCGAGGGGGCATGCCT
GTTGAGCGTCATTACACCACTCAAGCTATGCTTGGTATTGGGTGCCGTCCTTAG
TTGGGCGCGCCTTAAAGACCTCGGCGAGGCCTCACCGGCTTTAGGCGTAGTAGA
ATTTATTGGAACGTCTGTCAAAGGAGAGGACTTCTGCCGACTGAAACCTTTTATT
TTTTCTAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATATCA
AAAAGCGGAGGAA

Isolate 4: Cercospora sp.

GTGAGGGCCTTCGGGCTCGACCTCCAACCCTTTGTGAACACAACCTTGTTGCTTCG
GGGGCGACCCTGCCGTTTCGACGGCGAGCGCCCCCGGAGGCCTTCAAACACTGC
ATCTTTGCGTCGGAGTTTAAGTAAATTAACAAAACCTTTCAACAACGGATCTCTT
GGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATTGCA
GAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCCCTTGGTATTCCGA
GGGGCATGCCTGTTTCGAGCGTCATTTACCACTCAAGCCTCGCTTGGTATTGGGC
GCCGCGGTGTTCCGCGCGCCTCAAAGTCTCCGGCTGAGCTGTCCGTCTTAAGCG
TTGTGATTTCAATTAATCGCTTCGGAGCGCGGGCGGTGCGGGCCGTTAAATCTTTT
ACAAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATAACAAT
AAGCGGAGGA

Isolate 5: Cladosporium 1 sp.

CATGCCTGTTTCGAGCGTCATTTACCACTCAAGCCTCGCTTGGTATTGGGCAACG
CGGTCCGCCGCGTGCCTCAAATCGACCGGCTGGGTCTTCTGTCCCCTAAGCGTTG
TGGAACCTATTTCGCTAAAGGGTGCTCGGGAGGCTACGCCGTAAAACAAACCCAT
TTCTAAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATATCAA
TAAGCGGAGGAA

Isolate 6: Cladosporium 2 sp.

TACAAGTGACCCCGGTCTAACCACCGGGATGTTTCATAACCCTTTGTTGTCCGACT
CTGTTGCCTCCGGGGCGACCCTGCCTTCGGGCGGGGGCTCCGGGTGGACACTTCA
AACTCTTGCGTAACCTTTGCAGTCTGAGTAAACTTAATTAATAAATTAACAACTTTT
AACAACGGATCTCTTGGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAA
GTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGC
CCCCTGGTATTCCGGGGGGCATGCCTGTTTCGAGCGTCATTTACCACTCAAGCCT
CGCTTGGTATTGGGCAACGCGGTCCGCCGCGTGCCTCAAATCGACCGGCTGGGTC
TTCTGTCCCCTAAGCGTTGTGGAAACTATTCGCTAAAGGGTGTTCCGGGAGGCTAC
GCCGTAAAACAACCCCATTTCTAAGGTTGACCTCGGATCAGGTAGGGATACCCG
CTGAACTTAAGCATATCAAAAAGCGGAGGAA

Isolate 7: Colletotricum sp.

GAATCTTTGAACGCACATTGCGCCCCGCCAGCATTCTGGCGGGGCATGCCTGTTGCA
GCGTCATTTCAACCCTCAAGCACCGCTTGGCGTTGGGGCCCTACGGCTTCCGTAG
GCCCCGAAATACAGTGGCGGACCCTCCCGGAGCCTCCTTTGCGTAGTAACATACC
ACCTCGCACTGGGATCCGGAGGGACTCCTGCCGTAAAACCCCCCAATTTATCAAG
GTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAAGCG
GAGGA

Isolate 8: Fusarium 1 sp.

CTACTACGCTATGGAAGCTCGACGTGACCGCCAATCAATTTGGGGAACGCGATTT
GACTCGCGAGTCCCAACACCAAGCTGGGCTTGAGGGTTGAAATGACGCTCGAAC
AGGCATGCCCCGCCAGAATACTGGCGGGCGCAATGTGCGTTCAAAGATTTCGATGA
TTCCTGAATTCTGCAATTCACATTACTTATCGCATTTTGCTGCGTTCTTCATCGA
TA

Isolate 9: Fusarium 2 sp.

TTTACAACTCCCAAACCCCTGTGAACATACCTATCGTTGCTTCGGCGGGTCGCCC
CAGCGCCTTCGGGCCTGGACCCAGGCGCCCGCCGGAGGACCCAACTCTTGTTTT
TTTGAGTATCTTCTGAGTAAACAAGCAAATAAATTA AAAACTTTCAACAACGGATC
TCTTGTTCTGGCATCGATGAAGAACGCAGCGAAATGCGATAAGTAATGTGAATT
GCAGAATTCCGTGAATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGTATTC
TGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCCCCCGGGCTTGGTG
TTGGGGCTCGGCCCCGTCCCTAGCGGACGCGCCGTCCCCGAAACCTAGTGCGGGTC
TCGCTGTAGCCTCCTCTGCGTAGTAGCTAACACCTCGCAACGGGAACGCAGCGCG
GCCACGCCGTTAAACCCCCCACTTCTGAAGGTTGACCTCGGATCAGGTAGGAATA
CCCGCTGAACTTAAGCATATCAAAAAGCGGAGGA

Isolate 10: Fusarium 3 sp.

CCAATTGTTGCCTCGGCGGATCAGCCCGCTCCCGGTAAAACGGGACGGCCCCGCC
AGAGGACCCCTAAACTCTGTTTCTATATGTAACCTTCTGAGTAAAACCATAAATAA
ATCAAAACTTTCAACAACGGATCTCTTGTTCTGGCATCGATGAAGAACGCAGCA
AAATGCGATAAGTAATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAAC
GCACATTGCGCCCGCCAGTATTCTGGCGGGCATGCCTGTTTCGAGCGTCATTTCAA
CCCTCAAGCCCCCGGGTTTGGTGTTGGGGATCGGCGAGCCCTTGCGGCAAGCCG
GCCCCGAAATCTAGTGCGGTCTCGCTGCAGCTTCCATTGCGTAGTAGTAAAACC
CTCGCAACTGGTACGCGGCGCGGCCAAGCCGTTAAACCCCCCACTTCTGAATGTT
GACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAAGCGGAG
GAA

Isolate 11: Fusarium 4 sp.

TTACCGAGTTTACAACTCCCAAACCCCTGTGAACATACCTTAATGTTGCCTCGGC
GGATCAGCCCCGCGCCCCGTAAAACGGGACGGCCCGCCAGAGGACCCAAACTCTA
ATGTTTCTTATTGTAACCTTCTGAGTAAAACAAATAAATCAAAACTTTCAAC
AACGGATCTCTTGTTCTGGCATCGATGAAGAACGCAGCAAAATGCGATAAGTA
ATGTGAATTGCAGAATTCAGTGAATCATCGAATCTTTGAACGCACATTGCGCCCG
CTGGTATTCCGGCGGGCATGCCTGTTTCGAGCGTCATTTCAACCCTCAAGCCCTCG
GGTTTGGTGTTGGGGATCGGCTCTGCCTTCTGGCGGTGCCGCCCCCGAAATACAT
TGGCGGTCTCGCTGCAGCCTCCATTGCGTAGTAGCTAACACCTCGCAACTGGAAC
GCGGCGCGGCCATGCCGTAAAACCCCCAACTTCTGAATGTTGACCTCGGATCAGGT
AGGAATACCCGCTGAACTTAAGCATATCAAAAAGCGGAGGAGGGGCCTCCCAA
TAAATCATTCTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAACTTAAG
CATATCAATAAGCGGAGGA

Isolate 12: Galactomyces 1 sp.

ATCATTATGAATTATTAATATTTGTGAATTTACCACAGCAAACAAAAATCATACA
ATCAAAACAAAAATAATTA AAAACTTTTAACAATGGATCTCTTGGTTCTCGTATCG
ATGAAGAACGCAGCGAAACGCGATATTTCTTGTGAATTGCAGAAGTGAATCATC
AGTTTTTTGAACGCACATTGCACTTTGGGGTATCCCCCAAAGTATACTTGTTTGAG
CGTTGTTTCTCTCTTGGAATTGCTTTGCTCTTCTAAAATTTTGAATCAAATTCGTTT
GAAAAACAACACTATTCAACCTCAGATCAAGTAGGATTACCCGCTGAACTTAAG
CATATCAATAAGCGGAGGAA

Isolate 13: Galactomyces 3 sp.

ATCATTATGAATTATTAATATTTGTGAATTTACCACAACAAACATCAATCATACA
ATCAATAATTA AAAAAATTA AAAACTTTTAACAATGGATCTCTTGGTTCTCGTATCG
ATGAAGAACGCAGCGAAACGCGATATTTCTTGTGAATTGCAGAAGTGAATCATC
AGTTTTTTGAACGCACATTGCACTTTGGGGTATCCCCCAAAGTATACTTGTTTGAG
CGTTGTTTCTCTCTTGGAATTGCTTTGCTCTTCTAAAATTTTGAATCAAATTCGTTT
GAAAAACAACACTATTCAACCTCAGATCAAGTAGGATTACCCGCTGAACTTAAG
CATATCAATAAGCGGAGGAA

Isolate 14: Isaria sp.

ATCATCGAATCTTTGAACGCACATTGCGCCCGCCAGCATTCTGGCGGGCATGCCT
GTTTCGAGCGTCATTTCAACCCTCGACGTCCCCCGGGACGTCGGCCTTGGGGACCG
GCAGCACCCCGCCGGCCCTGAAATGGAGTGGCGGGCCCGTCCGCGGCGACCTCTG
CGAAGTACTACAGCTCGCACCGGAAACCCGACGCGGGCCCCGCCGTGAAACCCCC
AACTCTGAACGTTGACCTCGGATCAGGTAGGACTACCCGCTGAACTTAAGCATAT
CAAAAAGCGGAGGAA

Isolate 15: Mucor 1 sp.

CCTGTTTCAGTATCAACAACAACCCACATCCACAATTTTGTGTGAATGGAAGTG
AGAGTATCGATGTAAAAATTGAACTCTTTAAACTATTAGGCCTGAACTATTGTT
CTATTAGCCTGAACATTTTTTTTAATATAAAGGAATGCTCTAGTTAAAAGACTATC
TTGGGGGCCTCCCAAATAAATCATTTTTTTAACTTGATCTGAAATCAGGTGGGAT
TACCCGCTGAACTTAAGCATATCAATAAGCGGAGGAA

Isolate 16: Mucor 2 sp.

TTTTATTTATGGGAGGCCCTAAATAATAAGCTTTTTTTTTAAAACATTTGAACCTA
GAGCTTTTCCTTTATATTA AAAAAAAGTTTCAGGCAAATTTAAAAAACTAAAATT
TCAGGCCTAATATTTTTTAAAGAGAACGGCGAACAAATAAATGTCAACCGTAAAA
GTACTCTCAATTCCATCAGCAAAAATCTATCTAAAAAAAATAAATTTTTGGAT
GTGGGGGGTTTCTGATACTGAAACAGGCGTGCTCATTTGGAATACCAATGAGCGC
AAGTTGCGTTCAAAGACTCGATGATTCACTGAATATGCAATTCACACTAGTTATC
GCACTTTGCTACGTTCTTCATCGATGCGAGAACCAAGAGATCCGTTGTTAAAAGT
TGTTTTTATAGATTTCTTAGGTCTATGTTACAATATTTTATTCTGAATTCTTTTG

Isolate 17: Mucor 3 sp.

CGGAGGATCATTAATAATTTAGATGGCCTTTGCTAGTTTTCTAGCGAATGGTTC
ATTCCTTTTTTACTGTGAACGTGTTTTAATTTTTTCAGCGTCTGAGGAATGTCTTTTAGC
CATAGGGATAGGCTACTAGAATGTTAACCGAGCTGAAAGTCAGGCTTAGGCCTG
GTATCCTATTAATTATTTACCAAAAAGAATTCAGTATTATAATTGTAACATAAGCG
TAAAAAACTTATAAAACAACCTTTTAACAACGGATCTCTTGGTTCTCGCATCGATG
AAGAACGTAGCAAAGTGCGATAACTAGTGTGAATTGCATATTCAGTGAATCATC
GAGTCTTTGAACGCAACTTGCGCTCAATGGTATTCCATTGAGCACGCCTGTTTCA
GTATCAAAAACACCCCACATTCATAATTTTGTGTGAATGGAAATGAGAGTTTCG
GCTTTATTGCTGAATTCTTTAAAATTATTAGGCCTGAACTATTGTTCTTTCTGCCT
GAACATTTTTTTAATATAAAGGAATGCTCTAGTAAAAAGACTATCTCTGGGGCCT
CCCAAATAAATCATTCTTAAATTTGATCTGAAATCAGGCGGGATTACCCGCTGAA
CTTAAGCATATCAA

Isolate 18: Penicillium sp.

TTTAACGAACCTTTGTTGCTTCGGCGGGCCCCGCCTCACGGCCGCGGGGGGGCTTC
TGCCCCCGGGCCCGCGCCCGCCGAAGACCCCTGTGAACGCTGTCTGAAGTATGC
AGTCTGAGAACTAGCTAAATTAGTTAAAACCTTTCAACAACGGATCTCTTGGTTC
CGGCATCGATGAAGAACGCAGCGAAATGCGATAACTAATGTGAATTGCAGAATT
CAGTGAATCATCGAGTCTTTGAACGCACATTGCGCCCTCTGGTATTCCGGAGGGC
ATGCCTGTCCGAGCGTCATTGCTGCCCTCAAGCACGGCTTGTGTGTTGGGCCCCC
GTCCCCCCCCTCGTCGGGGGGACGGGCCCCGAAAGGCAGCGGCGGCACCGCGTCCG
GTCCTCGAGCGTATGGGGCTTCGTCACCCGCTCTTGTAGGCCCGGCCGGCGCCAG
CCGACCCCAACCCTAAATTTTTTTTCAGGTTGACCTCGGATCAGGTAGGGATAACC
GCTGAACCTTAAGCATATCAATAAGCGGAGGA

Isolate 19: Phomopsis 1 sp.

ATCTTTGAACGCACATTGCGCCCTCTGGTATTCCGGAGGGCATGCCTGTTGAGC
GTCATTTCAACCCTCAAGCATTGCTTGGTGTGTTGGGGCACTGCTTCTAACGAAGCA
GGCCCTGAAATCTAGTGCGGAGCTCGCCAGGACCCCGAGCGCAGTAGTTAAACC
CTCGCTCTGGAAGGCCCTGGCGGTGCCCTGCCGTTAAACCCCCAACTTCTGAAAA
TTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCATATCAAAAAGCG
GAGGAA

Isolate 20: Phomopsis 2 sp.

GCCTGTTTCGAGCGTCATTTCAACCCTCAAGCATTGCTTGGTGTGTTGGGGCACTGCT
TCTAACGAAGCAGGCCCTGAAATCTAGTGCGGAGCTCGCCAGGACCCCGAGCGC
AGTAGTTAAACCCTCGCTCTGGAAGGCCCTGGCGGTGCCCTGCCGTTAAACCCCC
AACTTCTGAAAATTTGACCTCGGATCAGGTAGGAATACCCGCTGAACTTAAGCAT
ATCAATAAGCGGAGGA

Isolate 21: Pleosporales sp.

CATGCCTGTTTCGAGCGTCATTTGTACCTTCAAGCTTTGCTTGGTGTGTTGGGCGTTTT
GTCTTTTTTATTTTCTAAATAGACTCGCCTCAAAGTAATTGGCAGCCAGTGTTTTG
GTAGTAAGCGCAGCACATTTTGCCTCTTCGTCTTCAAACAGCGGCATCCACAAAG
CCTCTTTCTCACTTTTGACCTCGGATCAGGTAGGGATAACCCGCTGAACTTAAGCA
TATCAAAAAGCGGAGGAA

Isolate 22: Scopulariopsis sp.

GGATCTACTACGCAGGGGGCGCCGCGGCTGGACCGCCACTACATTTCTGGGGACT
GCGGGGGGGACGAGCCCCACCCGTAGAGCCCCAACACCGGGCGACGGCAGGCC
CCGTAGGGCTAGCCGCGCTCGAGGGAAGAAATGACGCTCGGACAGGCATGCCCCG
GCAGATTGCTGCCGGGCGCAATGTGCGTTCAAAGATTGATGATTCACTGAATTC
TGCAATTCACATTACTTATCGCATTTTCGCTGCGTTCTTCATCGATGCCAGAACCAA
GAGATCCGTTGTTAAAAGTTTTGACTTGTTTTTTGTTTTGAATCAGAACGTGCAGT
ACGCTTTTTCAAATTTAGAGTTTGGCGCGGCCGGCGGGGACGGGGACGGGGA

Supplementary file 2: SSU and LSU sequences of the 5 most potent fungal isolates used for Blast search

LSU SEQUENCES:

Isolate 12: Galactomyces candidum 1

TGCCTTAGTAACGGCGAGTGAAGCGGCAAAAGCTCAAATTTGAAATCGGCCACC
AGGTCGAGTTGTAATTTGTAGATTGTATCTTGAGAGCGGATTAAAGTCTGTTGGA
ACACAGCGCCTTAGAGGGTGACAGCCCCGTAAAATCTATTCTCATTGTAAGATAC
TTTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCTAAGTGGGAGGTAAATTCCTT
CTAAAGCTAAATATTGACGAGAGACCGATAGCGAACAAGTACTGTGAAGGAAAG
ATGAAAAGCACTTTGAAAAGAGAGTGAAAAAGTACGTGAAATTGTTAAAAGGGA
AGGGTATTGAATCAGACTTGGTGCTGTTGTTCAACTGTGTTTTGGCACAGTGTAC
TCAGCAGTACTAGGCCAAGGTGGGGTGTTTGGGAGTGAAAAAGAAGTTGGAACG
TAACTCTTCGGAGTGTTATAGCCTACTTTTCATAGCTCCTCAGGCGCCTCAGGACT
GCGCTTCGGCAAGGACCTTGGCATAATGATTCTATAACCGCCCGTCTTGAAACACG
GACCAAGGAGTCTAACGTCTATGCGAGTGTTTGGGTGTAAAACCCGTACGCGTA
ATGAAAGTGAAACGTAGATAGGAGCAGTAATGCGCACTATCGACCGATCCTGATG
TTTTCAGATGGATTTGAGTAAGAGCATAGCTGTTGGGACCCGAAAGATGGTGAA
CTATGCCTGAATAGGGTGAAGCCAGAGGAAACTCTGGTGGAGGCTCGTAGCGGT
TCTGACGTGCAAATCGATCGTCGAATTTGGGTATAGGGGCGAAAGACTAATCGA
ACCATCTAGTAGCTGGTTCCTGCCGAAGTTTCCCTCAGGATAGCAGAAGCTCGTA
TCAGTTTTATGAGGTAAAGCGAATGATTAGAGGTACTGGGGTCTATGTGACCTTA
ACC

Isolate 13: Galactomyces candidum 2

TGCCTTAGTAACGGCGAGTGAAGCGGCAAAAGCTCAAATTTGAAATCGGCCACC
AGGTCGAGTTGTAATTTGTAGATTGTATCTTGAGAGCGGATTAAAGTCTGTTGGA
ACACAGCGCCTTAGAGGGTGACAGCCCCGTAAAATCTATTCTCATTGTAAGATAC
TTTCGAAGAGTCGAGTTGTTTGGGAATGCAGCTCTAAGTGGGAGGTAAATTCCTT
CTAAAGCTAAATATTGACGAGAGACCGATAGCGAACAAGTACTGTGAAGGAAAG
ATGAAAAGCACTTTGAAAAGAGAGTGAAAAAGTACGTGAAATTGTTAAAAGGGA
AGGGTATTGAATCAGACTTGGTGCTGTTGTTCAACTGTGTTTCGGCACAGTGTAC
TCAGCAGTACTAGGCCAAGGTGGGGTGTTTGGGAGTGAAAAAGAAGTTGGAACG
TAACTCTTCGGAGTGTTATAGCCTACTTTTCATAGCTCCTCAGGCGCCTCAGGACT
GCGCTTCGGCAAGGACCTTGGCATAATGATTCTATAACCGCCCGTCTTGAAACACG
GACCAAGGAGTCTAACGTCTATGCGAGTGTTTGGGTGTAAAACCCGTACGCGTA
ATGAAAGTGAAACGTAGATAGGAGCAGTAATGCGCACTATCGACCGATCCTGATG
TTTTCAGATGGATTTGAGTAAGAGCATAGCTGTTGGGACCCGAAAGATGGTGAA
CTATGCCTGAATAGGGTGAAGCCAGAGGAAACTCTGGTGGAGGCTCGTAGCGGT
TCTGACGTGCAAATCGATCGTCGAATTTGGGTATAGGGGCGAAAGACTAATCGA
ACCATCTAGTAGCTGGTTCCTGCCGAAGTTTCCCTCAGGATAGCAGAAGCTCGTA
TCAGTTTTATGAGGTAAAGCGAATGATTAGAGGT

Isolate 14: Isaria fumosorosea

GTAACGGCGAGTGAAGCGGCAACAGCTCAAATTTGAAATCTGGCCCCCGGGTCC
GAGTTGTAATTTGCAGAGGATGCTTCGGGCGAGGTGCCTTCCGAGTTCCCTGGAA
CGGGACGCCACAGAGGGTGAGAGCCCCGTCTGGTCGGACACCGAGCCCGTGTGA
AGCTCCTTCGAAGAGTCGAGTAGTTTGGGAATGCTGCTCAAAACGGGAGGTATA
TGTCTTCTAAAGCTAAATATTGGCCAGAGACCGATAGCGCACAAAGTAGAGTGAT
CGAAAGATGAAAAGCACTTTGAAAAGAGGGTTAAAAAGTACGTGAAATTGTTGA
AAGGGAAGCGCCCATGACCAGACTTGGGCCCGGTGAATCACCCGGCGTTCTCGC
CGGTGCACTTTGCCGGGCACAGGCCAGCATCAGTTTGGCGCGGGGGAGAAAGGC
TTCGGGAACGTGGCTCCCTCGGGAGTGTTATAGCCCGCTGCGCAATACCCTGCGC
CGGACTGAGGTACGCGCATCGCAAGGATGCTGGCGTAATGGTCATCAGCGACCC
GTCTTGAAACACGGACCAAGGAGTCGTCTTCGTATGCGAGTGTTGCGGTGTCAAA
CCCCTACGCGGAATGAAAGTGAACGCAGGTGAGAGCTTCGGCGCATCATCGACC
GATCCTGATGTTCTCGGATGGATTTGAGTAAGAGCATAACGGGGCCGGACCCGAA
AGAAGGTGAACTATGCCTGTATAGGGTGAAGCCAGAGGAACTCTGGTGGAAGC
TCGCAGCGGTTCTGACGTGCGAATCGATCGTCAAATATGGGCATGGGGGCGAAA
GACTAATCGAACCTTCTAGTAGCTGGTTTCCGCCGAAGTTTCCCTCAGGATAGCA
GTGTTGGACTCAGTTTTATGAGGTAAAGCGAATGATTAGGGACTCGGGG

Isolate 17: Mucor hiemalis

TGATTTCCCTAGTAACGGCGAGTGAAGAGGAAAGAGCTCAAAGTTGGAACCTGT
TTGGCTTAGCTAAACCGGATTGTAAACTGTAGAAGTGTTTTCCAGACACGCCTGG
TAAAAAAGTCCTTTGGAACAGGGCATCATAGAGGGTGAGAATCCCGTCATTGGC
CAGAGCTGTTGTCTTTTGTGATACATTTTCAAAGAGTCAGGTTGTTTGGGAATGC
AGCCTAAATTGGGTGGTAAATCTCACCTAAAGCTAAATATTTGCGAGAGACCGA
TAGCGAACAAGTACCGTGAGGGAAAGATGAAAAGAACTTTGAAAAGAGAGTTA
AACAGTATGTGAAATTGTTAAAAGGGAACCGTTTGGAGCCAGACTGGCTTAAC
GTAATCAATCTAGGCTTTGGCCTGGATGCACTTGCGGTTTATGCCGGCCAACGAC
AGTTTTGTTTGAGGGAAAAAATTACATTGAATGTGGCCCTTCGGGGTGTTATAGC
TTTGTAAAAAAATACCTTGGACTGGACTGAGGAACGCAGTGAATGCCTTTAGGCA
AGATTGCTGGGTGCTTTTCGCTAATAAATGCTAGAATTTCTGCTTCGGGTGGTGCT
AGTGTTTAAAGGAGGAACTCGCTTAGTATATTTTTTATTTCGCTTAGGTTGTTGGCT
TAATGACTCTAAATGACCCGTCTTGAAACACGGACCAAGGAGTCCACCATAAGT
GCGAGTATTTGGGTGACAAACCCATATGCGCAAGGAACTGATTGATACGAAGG
CTTTAAGCTGGCAGTATCACCCGGCGTTGACGTTTTATACTGAACTGACCGAGGT
AAAGCACTTATGATGGGACCCGAAAGATGGTGAACCTATGCCTGAATAGGGTGAA
GCCGGAGGAACTCCGGTGGAGGCTCGTAGCGATTCTGACGTGCAAATCGATCG
TCAAATTTGGGTATAGGGGCGAAAGACTAATCGAACCATCTAGTA

SSU SEQUENCES:

Isolate 12: Galactomyces candidum 1

GTGAAACTGCGAATGGCTCATTAAATCAGTTATCGTTTATTTGATATTACATTACT
ACTTGGATAACCGTGGTAATTCTAGAGCTAATACATGCTAAAACGGCCGGGTTCC
CGGCTGGTATTTATTAGATAAAAAACCAATGCCTTCGGGCTCTATGGTGAATCAT
AATAACTTGTCTGAATCGCATGGCCTTGTGCTGGCGATGGTTCATTCAAATTTCTG
CCCTATCAACTTTCGATGGTAGGATAGAGGCCTACCATGGTTTTAACGGGTAACG
GGGAATCAGGGTTCGATTCCGGAGAGGGAGCCTGAGAAACGGCTACCACATCCA
AGGAAGGCAGCAGGCGCGCAAATTACCCAATCCTGACACAGGGAGGTAGTGAC
AATAAATAACGATACGGGGCCTATTAGGTCTCGTAATTGGAATGAGAACAATTT
AAATACCTTAACGAGGAACAATTAGAGGGCAAGTCTGGTGCCAGCAGCCGCGGT
AATTCAGCTCTGATAGTATATATTAAAGTTGTTGCAGTTAAAAAGCTCGTAGTT
GAAACTTGGGTGTGTAGGGGCGGTCTCTTTTAGAGTACTACCCTGAAACATCTTT
CTTTGGTGTAACCTCTTTATTCATTAAGGAGTGTAACCAAACATTTACTTTGAA
AAAATTAGAGTGTTCAAAGCAGGCCTTTGCTCGAATATATTAGCATGGAATAATA
GAATAGGACGTATGGTTCTATTTTGTGGTTTCTAGGACCGTCGTAATGATTAAT
AGGGACGGTCGGGGGCATCAGTATTCAGTTGTCAGAGGTGAAATTCTTGATTGA
CTGAAGACTAACTACTGCGAAAGCATTTGCCAAGGACGTTTTTCATTAATCAAGAA
CGAAAGTTAGGGGATCGAAGACGATCAGATACCGTCGTAGTCTTAACCGTAAAC
TATGCCGACTAGGGATCGGAGGGCGTTATAATAACCTCTCCGGCA

Isolate 13: Galactomyces candidum 2

TATACAGTGAAACTGCGAATGGCTCATTAAATCAGTTATCGTTTATTTGATATTA
CATTACTACTTGGATAACCGTGGTAATTCTAGAGCTAATACATGCTAAAACGGCC
GGGTTCCCGGCTGGTATTTATTAGATAAAAAACCAATGCCTTCGGGCTCTATGGT
GAATCATAATAACTTGTCTGAATCGCATGGCCTTGTGCTGGCGATGGTTCATTCAA
ATTTCTGCCCTATCAACTTTCGATGGTAGGATAGAGGCCTACCATGGTTTTAACG
GGTAACGGGGAATCAGGGTTCGATTCCGGAGAGGGAGCCTGAGAAACGGCTACC
ACATCCAAGGAAGGCAGCAGGCGCGCAAATTACCCAATCCTGACACAGGGAGGT
AGTGACAATAAATAACGATACGGGGCCTATTAGGTCTCGTAATTGGAATGAGAA
CAATTTAAATACCTTAACGAGGAACAATTAGAGGGCAAGTCTGGTGCCAGCAGC
CGCGGTAATTCAGCTCTGATAGTATATATTAAAGTTGTTGCAGTTAAAAAGCTC
GTAGTTGAAACTTGGGTGCGTAGGGGCGGTCTCTTTTAGAGTACTACCCTGAAAC
ATCTTTCTTTGGTGTAACCTTTCTATTTATTTAGGAAGTGTAACCAAACATTTAC
TTTGAAAAAATTAGAGTGTTCAAAGCAGGCCTTTGCTCGAATATATTAGCATGGA
ATAATAGAATAGGACGTATGGTTCTATTTTGTGGTTTCTAGGACCGTCGTAATG
ATTAATAGGGACGGTCGGGGGCATCAGTATTCAGTTGTCAGAGGTGAAATTCTTG
GATTTACTGAAGACTAACTACTGCGAAAGCATTTGCCAAGGACGTTTTTCATTAAT
CAAGAACGAAAGTTAGGGGATCGAAGACGATCAGATACCGTCGTAGTCTTAACC
GTAAACTATGCCGACTAGGGATCGGAGGG

Isolate 14: Isaria fumosorosea

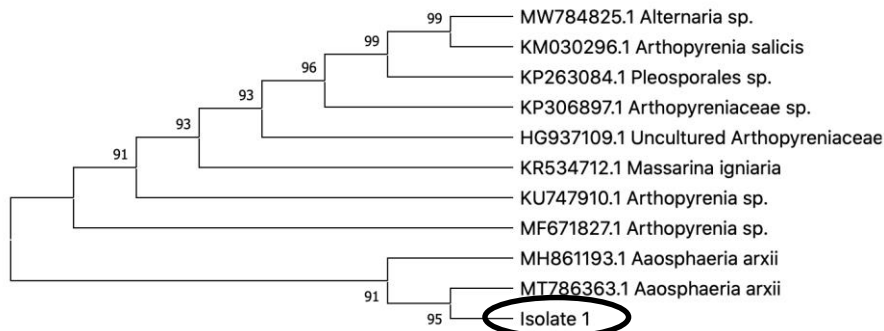
GCATTATACAGCGAAACTGCGAATGGCTCATTATATAAGTTATCGTTTATTTGAT
AGTACCTTACTACTTGGATAACCGTGGTAATTCTAGAGCTAATACATGCTAAAAA
TCCCGACTTCGGAAGGGATGTATTTATTAGATTAAAAACCAATGCCCTCTGGGCT
CCTTGGTGATTTCATGATAACTCTTCGAATCGCACGGCCTTGCGCCGGCGATGGTT
CATTCAAATTTCTTCCCTATCAACTTTCGATGTTTGGGTATTGGCCAAACATGGTT
GCAACGGGTAACGGAGGGTTAGGGCTCGACCCCGGAGAAGGAGCCTGAGAAAC
GGCTACTACATCCAAGGAAGGCAGCAGGCGCGCAAATTACCCAATCCCGATTCTG
GGGAGGTAGTGACAATAAATACTGATACAGGGCTCTTTTGGGTCTTGTAATTGGA
ATGAGTACAATTTAAATCCCTTAACGAGGAACAATTGGAGGGCAAGTCTGGTGC
CAGCAGCCGCGGTAATTCCAGCTCCAATAGCGTATATTAAAGTTGTTGTGGTTAA
AAAGCTCGTAGTTGAACCTTGGGCTGGCTGGCCGGTCCGCCTCACCGCGTGCAC
TGGTCCGGCCGGGCCTTTCCCTCTGTGGAACCCCATGCCCTTCACTGGGCGTGGC
GGGGAACAGGACGTTTACTTTGAAAAAATTAGAGTGCTCCAGGCAGGCCTATG
CTCGAATACATTAGCATGGAATAATGAAATAGGACGCGTGTTCTATTTTGTGG
TTTCTAGGACCGCCGTAATGATTAATAGGGACAGTCGGGGGCATCAGTATTCAAT
TGTCAGAGGTGAAATTCTTGGATTTATTGAAGACTAACTACTGCGAAAGCATTTG
CCAAGGATGTTTTCATTAATCAGGAACGAAAGTTAGGGGATCGAAGACGATCAG
ATACCGTCGTAGTCTTAACCATAAACTATGCCGACTAGGGATCGGACGATGTTAT
TTTTT

Isolate 17: Mucor hiemalis

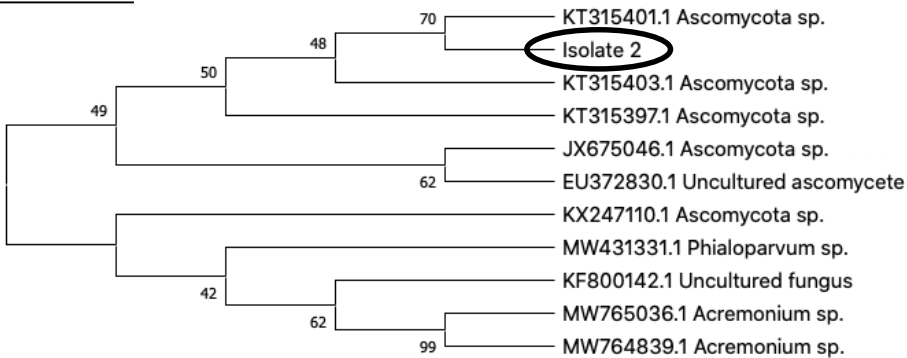
AATAAATTTATATTGTGAAACTGCGAATGGCTCATTAAATCAGTTATGATCTACG
TGACATATTCTTTACTACTTGGATAACCGTGGTAATTCTAGAGCTAATACATGCA
AAAAAACCCCTGACTTCGGAAGGGGTGCACTTATTAGATAAAGCCAACGCGGGGT
AAACCTGTTTTCCCTTGGTGATTTCATAATAATTAAGCGGATCGCATGGCCTTG
CTAGCGACGGTCCACTCGATTTTCTGCCCTATCATGGTTGAGATTGTAAGATAGA
GGCTTACAATGCCTACAACGGGTAACGGGGAATTAGGGTTCGATTCCGGAGAGG
GAGCCTGAGAAACGGCTACCACATCCAAGGAAGGCAGCAGGCGCGCAAATTACC
CAATCCCGACACGGGGAGGTAGTGACAATAAATAACAATGCAGGGCCTTTAAGG
TCTTGCAATTGGAATGAGTACAATTTAAATCCCTTAACGAGGATCAATTGGAGGG
CAAGTCTGGTGCCAGCAGCCGCGGTAATTCCAGCTCCAATAGCGTATATTAAAGT
TGTTGCAGTTAAACGTCCGTAGTCAAATTTTAGTCTTTAGGCGAAGTGGCCTGG
TCTTCATTGATCAAGCTCGTTTCTGCCGAGACTTTTTTTTTTGGTTATGCTACTGTTG
GCTTCGGTTCGGCGGTAGTCTCTAGCCAAATGATTACCATGAGCAAATCAGAGTGT
TTAAAGCAGGCTTTCAAGCTTGAATGTGTTAGCATGGAATAATGAAATATGACTT
TAGTCCCTATTTTCGTTGGTTCAGGAACCTTAAGTAATGATGAATAGAAACGGTTGG
GGGCATTTGTATTTGGTCGCTAGAGGTGAAATTCTTGGATTGACCGAAGACAAAC
TACTGCGAAAGCATTTGACCCAGGACGTTTTTCATTGATCAAGGTCTAAAGTTAAG
GGATCGAAGACGATTAGATACCGTCGTAGTCTTAACCACAAACTATGCCGACTA
CGGATTGGG

Supplementary file 3: ITS-based neighbor-joining-based phylogenetic trees of the 22 fungal isolates

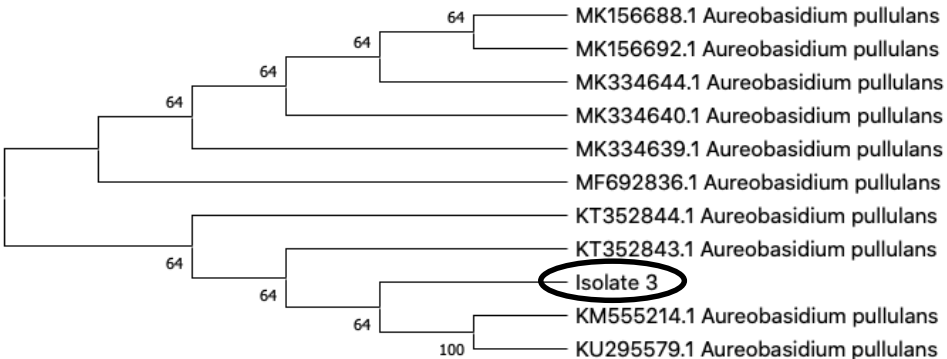
Isolate 1



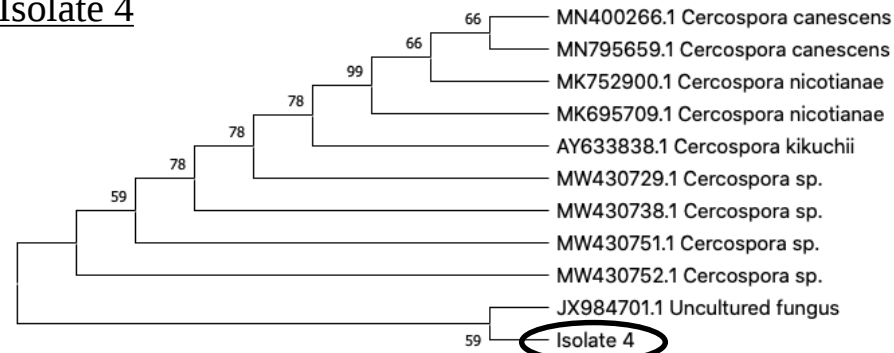
Isolate 2



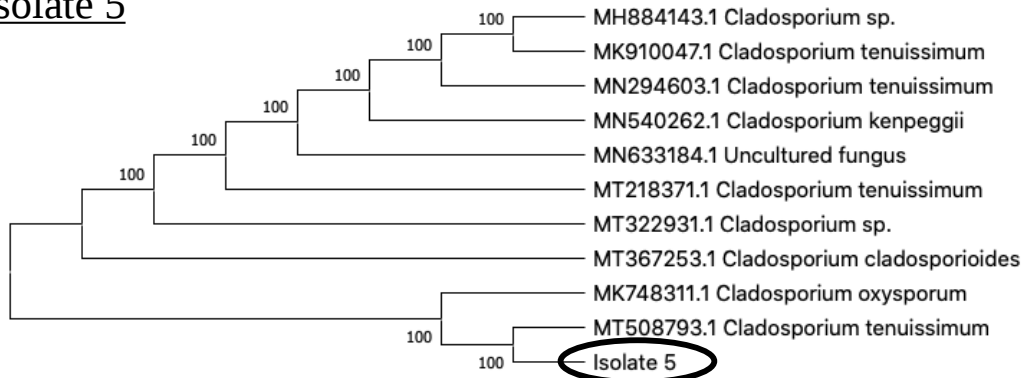
Isolate 3



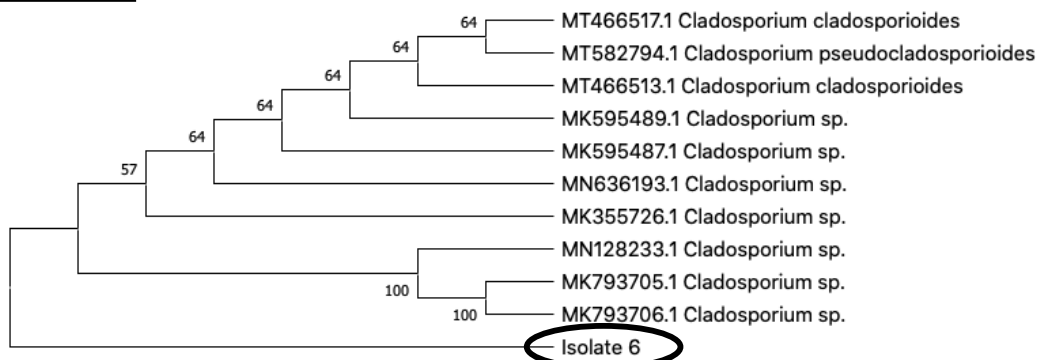
Isolate 4



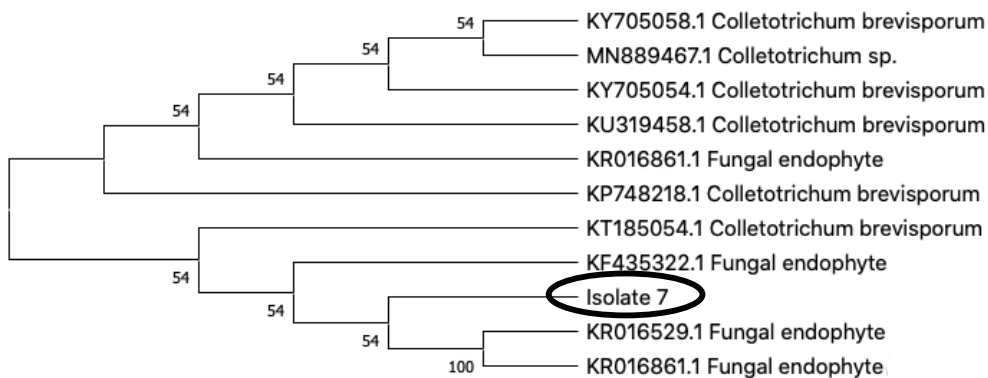
Isolate 5



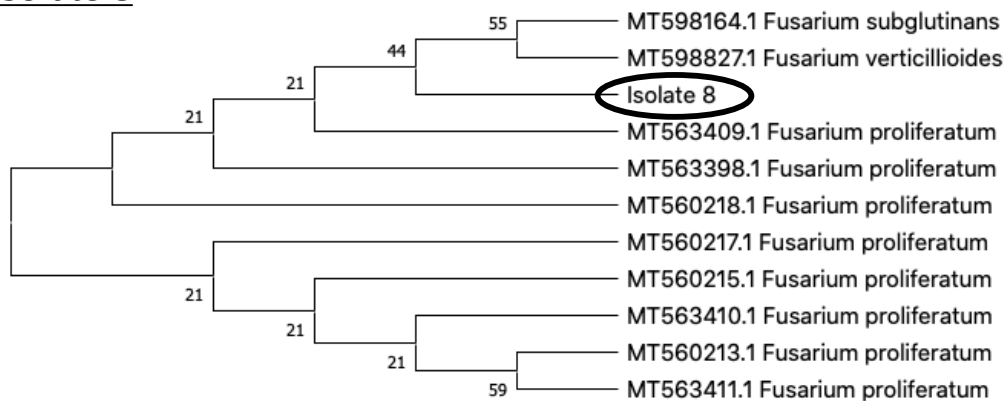
Isolate 6



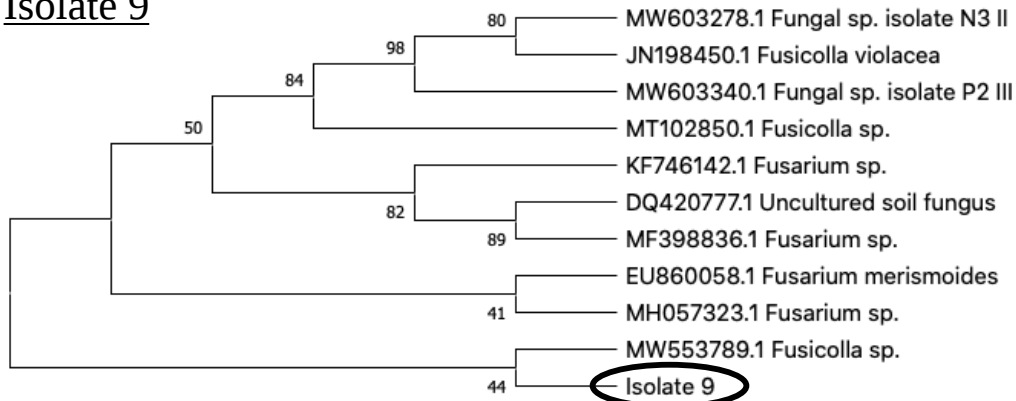
Isolate 7



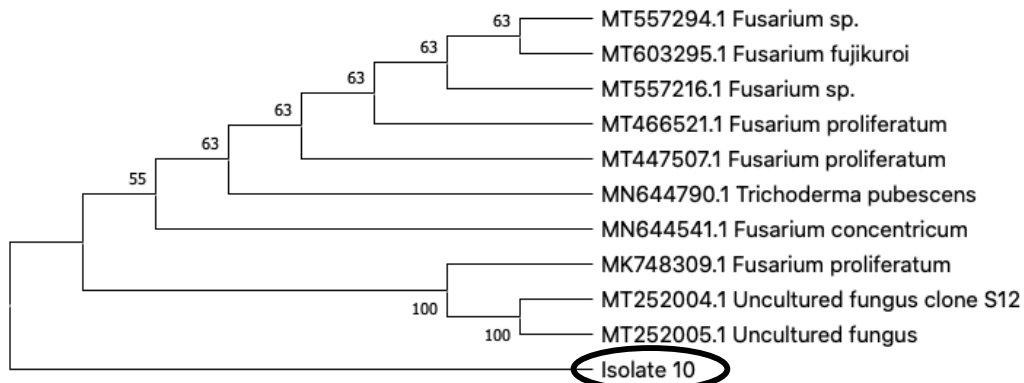
Isolate 8



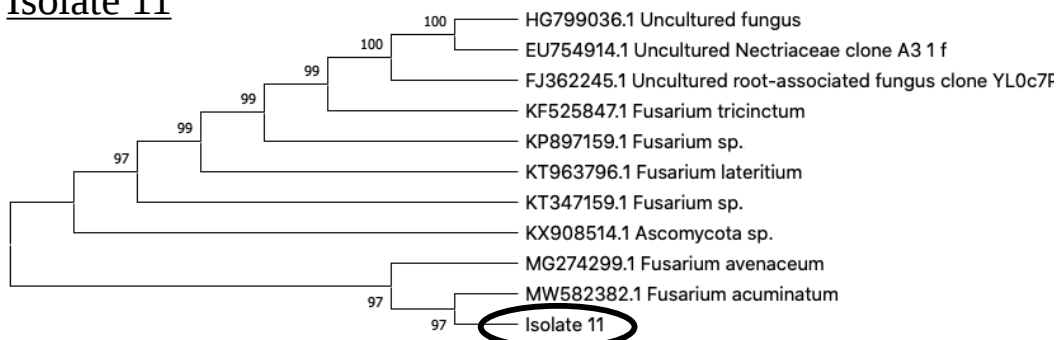
Isolate 9



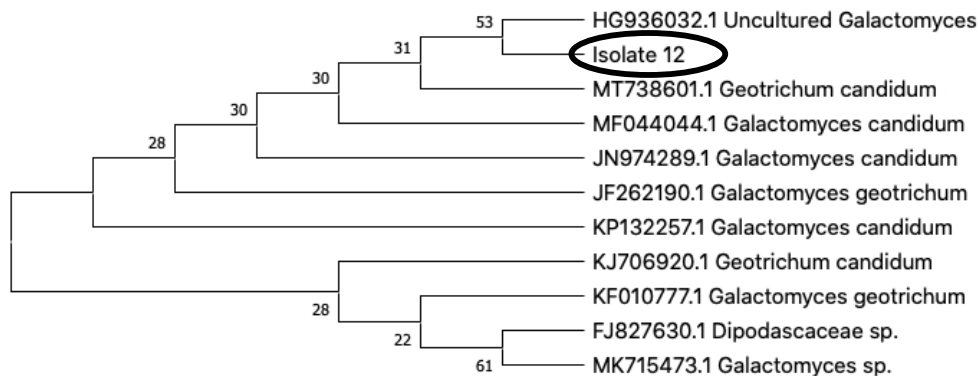
Isolate 10



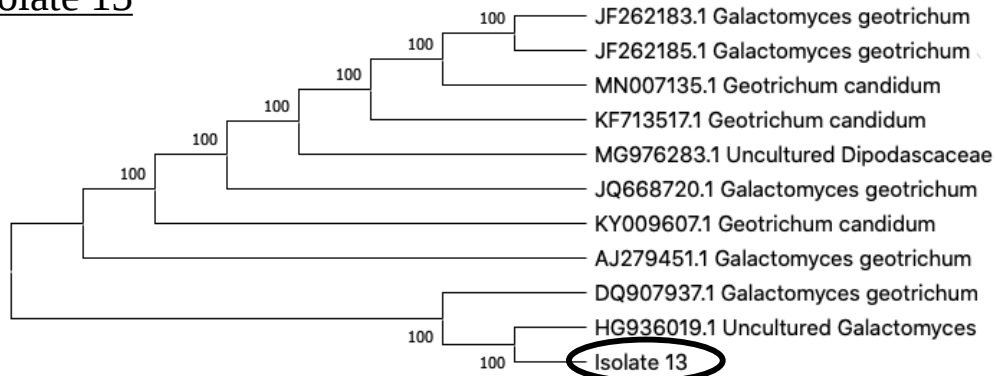
Isolate 11



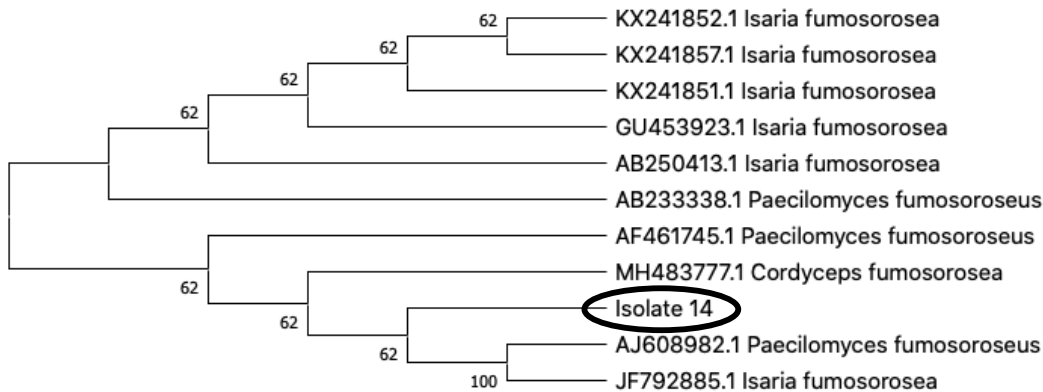
Isolate 12



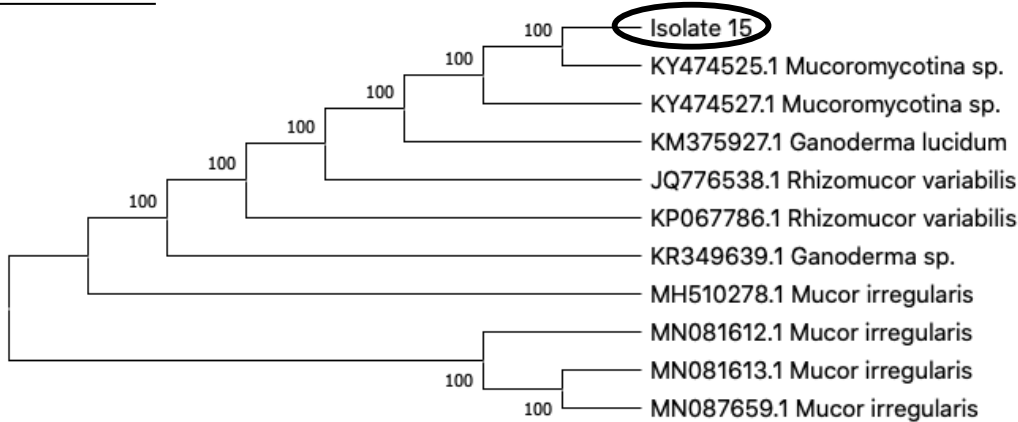
Isolate 13



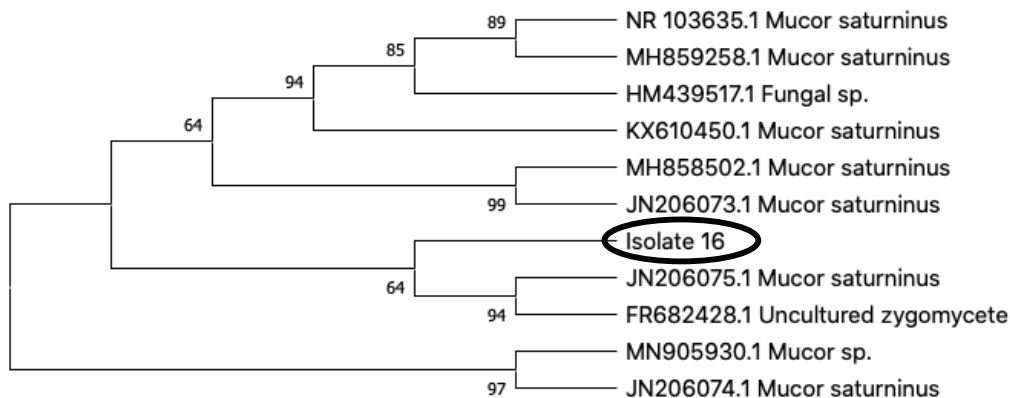
Isolate 14



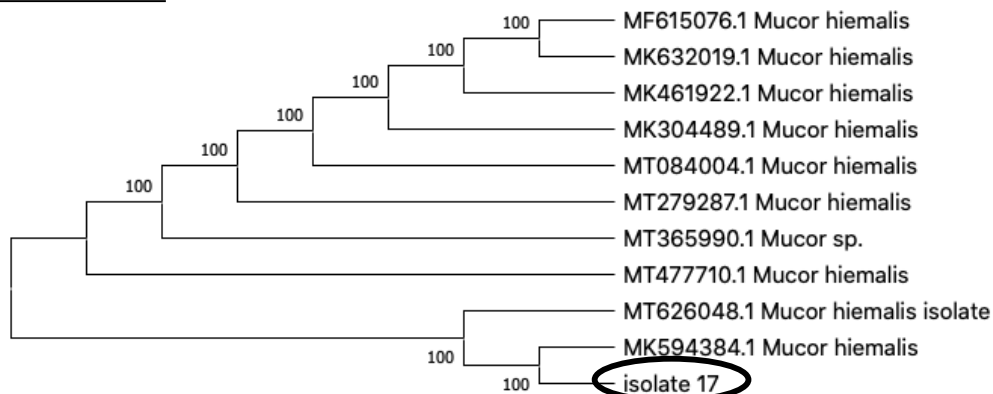
Isolate 15



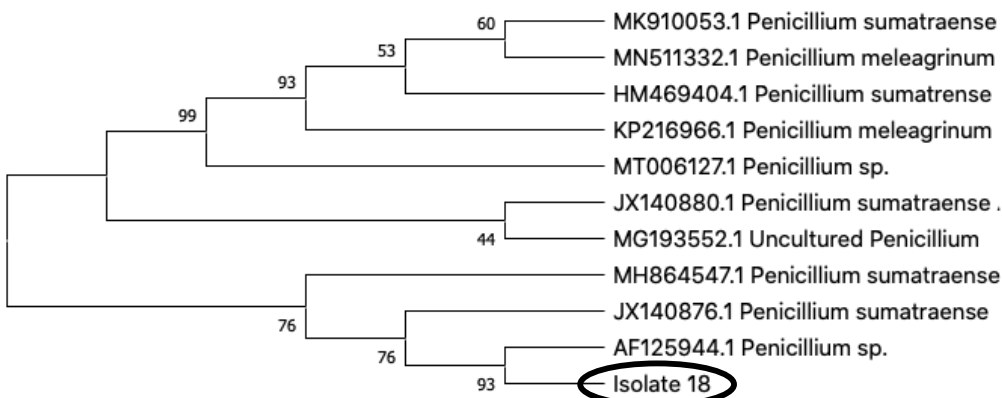
Isolate 16



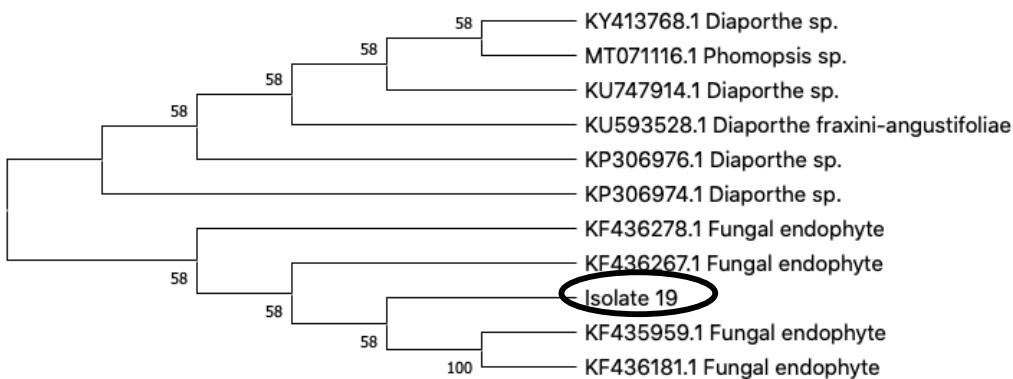
Isolate 17



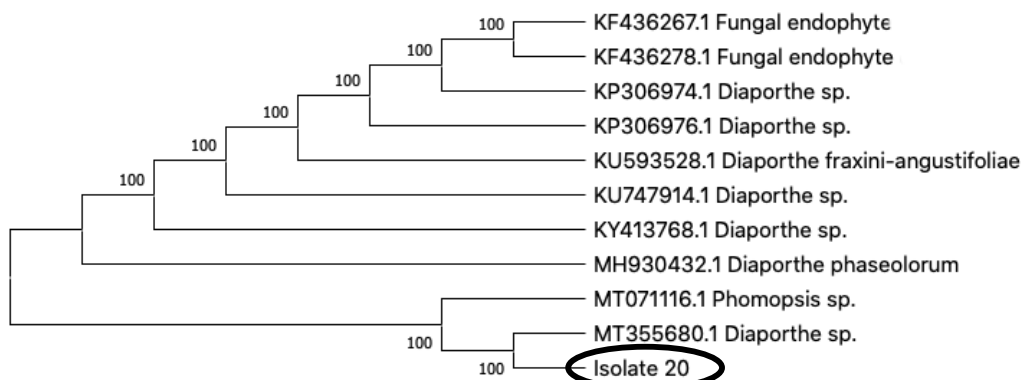
Isolate 18



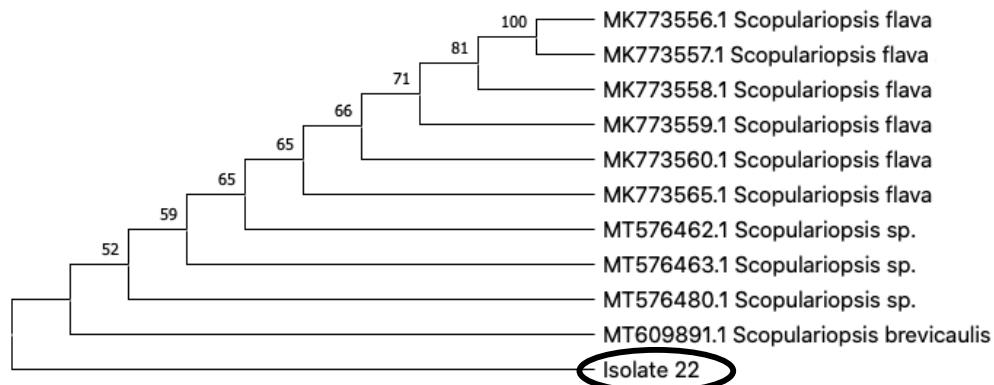
Isolate 19



Isolate 20



Isolate 21



Isolate 22

