REF 1829014
REF 1889531

Language: en

Release Notes

MBT Filamentous Fungi Library 2023

Covering 225 species/entries (1021 MSPs)

Not for clinical diagnostic use

Contents

1 Overview

1.1 Introduction

The MBT Filamentous Fungi Library 2023 is used for the identification of filamentous fungi. It consists of 1021 MSPs (MSP = **M**ain **S**pectrum **P**rojection = Reference Spectrum). The library strain composition consists of culture collection strains and strains isolated from clinical and environmental specimens provided by cooperation partners. All filamentous fungi were processed according to the Bruker Standard Operating Procedure (SOP) for filamentous fungi cultivation and sample preparation. The taxonomical classification is based on DNA sequencing whenever possible and on peer reviewed publications to assure a state-of-the-art mycological taxonomy.

1.2 What is new with the MBT Filamentous Fungi Library 2023?

The MBT Filamentous Fungi Library 2023 evolved from the MBT Filamentous Fungi Library Version 2022 which was revisited and resulted in 1021 MSPs covering 225 species/groups in total. For quality improvement some reference entries have been deleted. Where possible deleted entries have been replaced by new references of the same strain. To reflect the currently applicable nomenclature several existing references have been renamed.

2 Recommended Filamentous Fungi Cultivation and Sample Preparation Procedure

A dedicated protocol for filamentous fungi cultivation and sample preparation developed by Bruker is available. A copy of the procedure is included in the MBT HT Filamentous Fungi Module User Manual.

3 Species content of the MBT Filamentous Fungi Library

The MBT Filamentous Fungi Library 2023 covers 225 different filamentous fungi species/groups. Restrictions on species level identifications are given in the Matching Hints section.

Table 1: List of the 225 filamentous fungi species/groups in the MBT Filamentous Fungi Library 2023

	Species/Group
1	***Absidia caerulea***
2	***Absidia glauca***
3	***Acaulium acremonium***
4	***Acremonium cereale***
5	***Acremonium chrysogenum***
6	***Acremonium curvulum***
7	***Acremonium polychromum***
8	***Acremonium sclerotigenum***
9	***Actinomucor elegans***
10	***Alternaria alternata***
11	***Alternaria infectoria***
12	***Alternaria rosae***
13	***Apophysomyces elegans***
14	***Arthrinium arundinis***
15	***Arthrinium phaeospermum***
16	***Arthroderma borellii***
17	***Arthroderma ciferrii***
18	***Arthroderma cuniculi***
19	***Arthroderma curreyi***
20	***Arthroderma eboreum***
21	***Arthroderma flavescens***
22	***Arthroderma gertleri***
23	***Arthroderma gloriae***
24	***Arthroderma insingulare***
25	***Arthroderma lenticulare***
26	***Arthroderma multifidum***
27	***Arthroderma thuringiensis***
28	***Arthroderma uncinatum***
29	***Arthrographis kalrae***
30	***Aspergillus brasiliensis***
31	***Aspergillus calidoustus***
32	***Aspergillus carneus***
33	***Aspergillus clavatus***
34	***Aspergillus creber***
35	***Aspergillus flavus_oryzae*_group**

	Species/Group
36	***Aspergillus fumigatus***
37	***Aspergillus iizukae***
38	***Aspergillus japonicus***
39	***Aspergillus lentulus***
40	***Aspergillus montevidensis***
41	***Aspergillus nidulans***
42	***Aspergillus niger***
43	***Aspergillus ochraceus***
44	***Aspergillus parasiticus***
45	***Aspergillus penicillioides***
46	***Aspergillus pseudoglaucus***
47	***Aspergillus pulvinus***
48	***Aspergillus ruber***
49	***Aspergillus rugulosus***
50	***Aspergillus sclerotiorum***
51	***Aspergillus* sp[4]**
52	***Aspergillus sydowii***
53	***Aspergillus tamarii***
54	***Aspergillus terreus***
55	***Aspergillus tritici***
56	***Aspergillus unguis***
57	***Aspergillus ustus***
58	***Aspergillus versicolor***
59	***Aspergillus wentii***
60	***Aspergillus westerdijkiae***
61	***Aureobasidium melanogenum_pullulans***
62	***Beauveria bassiana***
63	***Blastomyces dermatitidis***
64	***Boeremia exigua***
65	***Botrytis aclada***
66	***Botrytis cinerea***
67	***Byssochlamys fulva***
68	***Byssochlamys nivea***
69	***Byssochlamys spectabilis***
70	***Chaetomium globosum***

	Species/Group
71	*Chaetomium sp*
72	*Chrysosporium keratinophilum*
73	*Chrysosporium shanxiense*
74	*Cladosporium cladosporioides*
75	*Cladosporium halotolerans*
76	*Cladosporium herbarum*
77	*Cladosporium macrocarpum*
78	*Cladosporium sphaerospermum*
79	*Clonostachys rosea*
80	*Colletotrichum gloeosporioides*
81	*Coniochaeta hoffmannii*
82	*Coniochaeta luteorubra*
83	*Coniochaeta mutabilis*
84	*Cordyceps farinosa*
85	*Cunninghamella bertholletiae*
86	*Cunninghamella elegans*
87	*Curvularia* sp[7]
88	*Dichotomopilus dolichotrichus*
89	*Dichotomopilus funicola*
90	*Didymella glomerata*
91	*Didymella pomorum*
92	*Epicoccum nigrum*
93	*Epidermophyton floccosum*
94	*Exophiala dermatitidis*
95	*Fusarium avenaceum*
96	*Fusarium cerealis_culmorum_group*
97	*Fusarium chlamydosporum*
98	*Fusarium delphinoides*
99	*Fusarium dimerum*
100	*Fusarium equiseti*
101	*Fusarium graminearum*
102	*Fusarium incarnatum*
103	*Fusarium oxysporum*
104	*Fusarium petroliphilum*
105	*Fusarium poae*
106	*Fusarium proliferatum*
107	*Fusarium solani*
108	*Fusarium sp*
109	*Fusarium sporotrichioides*
110	*Fusarium verticillioides*
111	*Fusicolla aquaeductuum*

	Species/Group
112	*Histoplasma capsulatum*
113	*Lasiodiplodia* sp
114	*Lichtheimia corymbifera*
115	*Lichtheimia ramosa*
116	*Lomentospora prolificans*
117	*Metarhizium marquandii*
118	*Microascus gracilis*
119	*Microascus melanosporus*
120	*Microsporum audouinii_canis*
121	*Monascus ruber*
122	*Monilinia laxa*
123	*Mortierella acrotona*
124	*Mortierella angusta*
125	*Mortierella gamsii*
126	*Mortierella* sp
127	*Mucor amphibiorum*
128	*Mucor circinelloides*
129	*Mucor genevensis*
130	*Mucor hiemalis*
131	*Mucor indicus*
132	*Mucor lanceolatus*
133	*Mucor moelleri*
134	*Mucor racemosus*
135	*Mucor* sp
136	*Nannizzia aenigmatica*
137	*Nannizzia duboisii*
138	*Nannizzia fulva*
139	*Nannizzia gypsea*
140	*Nannizzia incurvata*
141	*Nannizzia persicolor*
142	*Nannizzia praecox*
143	*Neoscytalidium dimidiatum_hyalinum*
144	*Neoscytalidium sp*
145	*Ovatospora brasiliensis*
146	*Ovatospora* sp
147	*Paecilomyces laguncullariae*
148	*Paraphyton cookei*
149	*Paraphyton cookiellum*
150	*Penicillium aurantiogriseum*
151	*Penicillium brevicompactum*
152	*Penicillium camemberti_commune_cyclopium*

	Species/Group
153	***Penicillium canescens***
154	***Penicillium capsulatum***
155	***Penicillium chrysogenum***
156	***Penicillium citreonigrum***
157	***Penicillium citrinum***
158	***Penicillium corylophilum***
159	***Penicillium digitatum***
160	***Penicillium expansum***
161	***Penicillium fellutanum***
162	***Penicillium glabrum***
163	***Penicillium italicum***
164	***Penicillium menonorum***
165	***Penicillium nalgiovense***
166	***Penicillium namyslowskii***
167	***Penicillium olsonii***
168	***Penicillium onobense***
169	***Penicillium oxalicum***
170	***Penicillium pimiteouiense***
171	***Penicillium roqueforti***
172	***Penicillium singorense***
173	***Penicillium sp***
174	***Penicillium* sp[2]**
175	***Penicillium turbatum***
176	***Penicillium verrucosum***
177	***Petriella setifera***
178	***Phaeoacremonium cinereum***
179	***Phialemoniopsis curvata***
180	***Phoma herbarum***
181	***Plectosphaerella cucumerina***
182	***Pseudogymnoascus pannorum***
183	***Purpureocillium lilacinum***
184	***Rasamsonia argillacea***
185	***Rhizomucor miehei***
186	***Rhizomucor pusillus***
187	***Rhizopus delemar***
188	***Rhizopus microsporus***
189	***Rhizopus oryzae***

	Species/Group
190	***Rhizopus stolonifer***
191	***Sarocladium kiliense***
192	***Sarocladium strictum***
193	***Scedosporium* sp[5]**
194	***Schizophyllum commune***
195	***Scopulariopsis brevicaulis***
196	***Scytalidium* sp**
197	***Sporothrix schenckii***
198	***Stachybotrys chartarum_chlorohalonata***
199	***Stachybotrys echinata***
200	***Syncephalastrum monosporum***
201	***Syncephalastrum racemosum***
202	***Talaromyces bacillisporus***
203	***Talaromyces diversus***
204	***Talaromyces duclauxii_wortmannii***
205	***Talaromyces funiculosus***
206	***Talaromyces islandicus***
207	***Talaromyces macrosporus***
208	***Talaromyces pseudostromaticus***
209	***Talaromyces ruber***
210	***Talaromyces rugulosus***
211	***Talaromyces* sp**
212	***Talaromyces trachyspermus***
213	***Thanatephorus cucumeris***
214	***Trichoderma fertile***
215	***Trichoderma hamatum***
216	***Trichoderma harzianum***
217	***Trichoderma longibrachiatum_orientale***
218	***Trichoderma polysporum***
219	***Trichoderma reesei***
220	***Trichophyton mentagrophytes_group***
221	***Trichophyton rubrum_group***
222	***Trichophyton terrestre***
223	***Trichothecium roseum***
224	***Trichurus spiralis***
225	***Zopfiella karachiensis***

4 Renaming

Table 2: Renaming of reference entries

Filamentous Fungi Library Version 2022	Filamentous Fungi Library 2023	Justification
Curvularia sp[6] 025_34602_927 JMI	**Curvularia sp[7] 025_34602_927 JMI**	Since species in *Curvularia* sp[6] (*Curvularia clavata*, *Curvularia fallax*, *Curvularia hawaiiensis*, *Curvularia lunata*, *Curvularia pallescens* and *Curvularia verruculosa*) and the newly added species *Curvularia spicifera* cannot be separated by MALDI, they have been grouped together. Therefore, all mentioned species should be taken into consideration as a possible result.
Curvularia sp[6] 136_37245_1066 JMI	**Curvularia sp[7] 136_37245_1066 JMI**	
Curvularia sp[6] 181009_27 MUW	**Curvularia sp[7] 181009_27 MUW**	
Curvularia sp[6] 2012_23_A ALB	**Curvularia sp[7] 2012_23_A ALB**	
Curvularia sp[6] 2016_31_F IFS	**Curvularia sp[7] 2016_31_F IFS**	
Curvularia sp[6] 352_50243_2003 JMI	**Curvularia sp[7] 352_50243_2003 JMI**	
Curvularia sp[6] CBS 150_63 CBS	**Curvularia sp[7] CBS 150_63 CBS**	
Curvularia sp[6] CBS 156_35T CBS	**Curvularia sp[7] CBS 156_35T CBS**	
Curvularia sp[6] CBS 294_61 CBS	**Curvularia sp[7] CBS 294_61 CBS**	
Curvularia sp[6] CBS 408_96 CBS	**Curvularia sp[7] CBS 408_96 CBS**	
Curvularia sp[6] CBS 444_7 CBS_2	**Curvularia sp[7] CBS 444_7 CBS_2**	
Curvularia sp[6] CBS 539_70 CBS_2	**Curvularia sp[7] CBS 539_70 CBS_2**	
Curvularia sp[6] DSM 1157 DSM	**Curvularia sp[7] DSM 1157 DSM**	
Curvularia sp[6] DSM 62480 DSM	**Curvularia sp[7] DSM 62480 DSM**	
Curvularia sp[6] DSM 62482 DSM	**Curvularia sp[7] DSM 62482 DSM**	
Curvularia sp[6] F70 LLH	**Curvularia sp[7] F70 LLH**	
Penicillium camemberti DSM 1233 DSM	**Penicillium camemberti_commune_cyclopium DSM 1233 DSM**	Since species *Penicillium camemberti* and *Penicillium commune* and the

Filamentous Fungi Library Version 2022	Filamentous Fungi Library 2023	Justification
Penicillium camemberti DSM 1995 DSM	**Penicillium camemberti_commune_cyclopium DSM 1995 DSM**	newly added species *Penicillium cyclopium* cannot be separated by MALDI, they have been grouped together. Therefore, all mentioned species should be taken into consideration as a possible result.
Penicillium commune 1260 MPA	**Penicillium camemberti_commune_cyclopium 1260 MPA**	
Stachybotrys chartarum 17122224 LMU	**Stachybotrys chartarum_chlorohalonata 17122224 LMU**	Since species *Stachybotrys chartarum* and *Stachybotrys chlorohalonata* cannot be separated by MALDI, they have been grouped together. Therefore, all mentioned species should be taken into consideration as a possible result.
Stachybotrys chartarum 17122225 LMU	**Stachybotrys chartarum_chlorohalonata 17122225 LMU**	
Stachybotrys chartarum 192239 MPA	**Stachybotrys chartarum_chlorohalonata 192239 MPA**	
Stachybotrys chartarum 19523 MPA	**Stachybotrys chartarum_chlorohalonata 19523 MPA**	
Stachybotrys chartarum DSM 12880 DSM	**Stachybotrys chartarum_chlorohalonata DSM 12880 DSM**	
Stachybotrys chlorohalonata 18032500 LMU	**Stachybotrys chartarum_chlorohalonata 18032500 LMU**	
Stachybotrys chlorohalonata 19813 MPA	**Stachybotrys chartarum_chlorohalonata 19813 MPA**	
Talaromyces duclauxii CBS 187_89 CBS	**Talaromyces duclauxii_wortmannii CBS 187_89 CBS**	Since species *Talaromyces duclauxii* and *Talaromyces wortmannii* cannot be separated by MALDI. they have been grouped together. Therefore, all mentioned species should be taken into consideration as a possible result.
Talaromyces duclauxii CBS 323_48 CBS	**Talaromyces duclauxii_wortmannii CBS 323_48 CBS**	
Talaromyces duclauxii DSM 3826 DSM_2	**Talaromyces duclauxii_wortmannii DSM 3826 DSM_2**	
Talaromyces wortmannii 1271 MPA	**Talaromyces duclauxii_wortmannii 1271 MPA**	
Trichoderma longibrachiatum 17326100_1 MVD	**Trichoderma longibrachiatum_orientale 17326100_1 MVD**	Since species *Trichoderma longibrachiatum* and *Trichoderma orientale* cannot be separated by MALDI, they have been grouped together. Therefore, all mentioned species should be taken into consideration as a possible result.
Trichoderma longibrachiatum C18 SPF	**Trichoderma longibrachiatum_orientale C18 SPF**	
Trichoderma longibrachiatum DSM 63060 DSM	**Trichoderma longibrachiatum_orientale DSM 63060 DSM**	
Trichoderma orientale CBS 131488 CBS	**Trichoderma longibrachiatum_orientale CBS 131488 CBS**	
Trichoderma orientale DSM 16517 DSM	**Trichoderma longibrachiatum_orientale DSM 16517 DSM**	
Exophiala dermatitidis CBS 207_35 CBS	**Exophiala dermatitidis CBS 207_35T CBS**	Cosmetic change

5 Groups

The following table lists groups and their consolidated species within the MBT Filamentous Fungi Library 2023.

Table 3: Groups and their consolidated species

Group	Consolidated species
***Aspergillus flavus_oryzae*_group**	*Aspergillus flavus* *Aspergillus oryzae*
Aspergillus sp[4] F45 LLH	*Aspergillus candidus* *Aspergillus campestris* *Apergillus pragensis* *Aspergillus subalbidus*
***Curvularia* sp[7]**	*Curvularia clavata* *Curvularia fallax* *Curvularia hawaiiensis* *Curvularia lunata* *Curvularia pallescens* *Curvularia spicifera* *Curvularia verruculosa*
***Fusarium cerealis_culmorum*_group**	*Fusarium cerealis* *Fusarium culmorum*
***Penicillium camemberti_commune_cyclopium* group**	*Penicillium camemberti* *Penicillium commune* *Penicillium cyclopium*
Penicillium sp[2] 1331 MPA	*Penicillium aurantiocandidum* *Penicillium cellarum*
Penicillium sp[2] DSM 62843 DSM	*Penicillium hispanicum* *Penicillum implicatum*
***Scedosporium* sp[5]**	*Scedosporium apiospermum* *Scedosporium aurantiacum* *Scedosporium boydii* *Scedosporium dehoogii* *Scedosporium minutisporum*
***Stachybotrys chartarum_chlorohalonata* group**	*Stachybotrys chartarum* *Stachybotrys chlorohalonata*
Talaromyces duclauxii_wortmannii group	*Talaromyces duclauxii* *Talaromyces wortmannii*
***Trichoderma longibrachiatum_orientale* group**	*Trichoderma longibrachiatum* *Trichoderma orientale*
***Trichophyton mentagrophytes*_group**	*Trichophyton benhamiae* *Trichophyton equinum* *Trichophyton erinaceid* *Trichophyton eriotrephon* *Trichophyton interdigitale* *Trichophyton mentagrophytes* *Trichophyton tonsurans* *Trichophyton verrucosum*

Group	Consolidated species
***Trichophyton rubrum*_group**	*Trichophyton rubrum* *Trichophyton violaceum*

6 Changes to Matching Hints

Table 4: Matching Hint Changes

Species/Group	Action	MBT Filamentous Fungi Library 2023	Justification
Aspergillus carneus	Implement new Matching Hint	is a member of Aspergillus sect. terri group or closely related	Due to recent sequencing results the adaption of the Matching Hint is needed.
Aspergillus ruber	Implement new Matching Hint	is a member of Aspergillus sect. aspergillus group or closely related	Due to recent sequencing results the adaption of the Matching Hint is needed.
Aspergillus terreus	Implement new Matching Hint	is a member of Aspergillus sect. terri group or closely related	Due to recent sequencing results the adaption of the Matching Hint is needed.
Cladosporium halotolerans	Implement new Matching Hint	closely related to Cladosporium sphaerospermum and not definitely distinguishable at the moment	Due to recent sequencing results the adaption of the Matching Hint is needed.
Cladosporium sphaerospermum	Implement new Matching Hint	closely related to Cladosporium halotolerans and not definitely distinguishable at the moment	Due to recent sequencing results the adaption of the Matching Hint is needed.
Fusarium cerealis	Implement new Matching Hint	closely related to Fusarium graminearum, Fusarium sambucinum SC group and not definitely distinguishable at the moment	Due to recent sequencing results the adaption of the Matching Hint is needed.
Fusarium culmorum	Implement new Matching Hint	closely related to Fusarium graminearum, Fusarium sambucinum SC group and not definitely distinguishable at the moment	Due to recent sequencing results the adaption of the Matching Hint is needed.

7 Technical Information

7.1 Installation Instruction

- For ***MBT Compass*** the prerequisite is the use of the MBT Compass software (Build 4.1.100) and the MBT Compass Filamentous Fungi Module.
    - Execute the setup file: MaldiBiotyper_Library-Module_Filamentous-Fungi-V7.0.0.0_1021-MSPs_(RUO).exe

      Note: Running setups requires administrator rights and can take several hours to complete. Please be aware that once the MSP library update was started, the progress must not be interrupted. Any interruption would leave the installed MSP library in an intermediate and therefore invalid state.

    - After successful installation, the appropriate MBT client application will use the MBT Filamentous Fungi Library 2023 containing 1021 MSPs.

      Note: Be aware that MSPs of the new library are assigned to the appropriate nodes in the taxonomy tree and are not available in the project tree. Accordingly, the Filamentous Fungi MSPs are accessed via the MSP library, if required.

  Note: The installation log and a complete name list of the installed MSPs are available in the folder **C:\BDALSystemData\MBT_Setups**. Please provide all files that are available in the folder to the Bruker Support in case of problems or questions.

- For ***MBT Compass HT*** refer to the MBT HT Filamentous Fungi Module User Manual.

7.2 Compatibility of MALDI Biotyper software versions

MBT Filamentous Fungi Library 2023 can be used with the following MBT RUO software versions:

- MBT Compass
- MBT Compass HT

8 Appendix

8.1 Matching Hints

The following table lists the Matching Hints included in the MBT Filamentous Fungi Library 2023.

Table 5: Matching Hints

Species/Group	Matching Hint	References
Alternaria alternata	is a member of Alternaria sect. alternata group or closely related	Woudenberg, J.H.C., Groenewald, J.Z., Binder, M., Crous, P.W., 2013. Alternaria redefined. Stud. Mycol. 75, 171–212.
Alternaria infectoria	is a member of Alternaria sect. infectoriae group or closely related	Woudenberg, J.H.C., Groenewald, J.Z., Binder, M., Crous, P.W., 2013. Alternaria redefined. Studies in Mycology 75, 171–212.
Arthrinium phaeospermum	is a member of Arthrinium sect. apiospora group or closely related	Tian, X., Karunarathna, S.C., Mapook, A., Promputtha, I., Xu, J., Bao, D., Tibpromma, S., 2021. One New Species and Two New Host Records of Apiospora from Bamboo and Maize in Northern Thailand with Thirteen New Combinations. Life 11, 1071.
Arthroderma borellii	synonym of Arthroderma amazonicum	N/A
Arthroderma gertleri	closely related to Arthroderma gloriae and not definitely distinguishable at the moment	N/A
Arthroderma gloriae	closely related to Arthroderma gertleri and not definitely distinguishable at the moment	N/A

Species/Group	Matching Hint	References
Aspergillus brasiliensis	is a member of Aspergillus sect. nigri group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus carneus	is a member of Aspergillus sect. terri group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus calidoustus	is a member of Aspergillus sect. usti group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
***Aspergillus flavus_oryzae*_group**	is a member of Aspergillus sect. flavi group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.
Aspergillus fumigatus	synonym of Aspergillus neoellipticus group	N/A

Species/Group	Matching Hint	References
Aspergillus japonicus	is a member of Aspergillus sect. nigri group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus lentulus	is a member of Aspergillus sect. fumigati group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.
Aspergillus montevidensis	synonym of Aspergillus amstelodami	N/A
Aspergillus niger	is a member of Aspergillus sect. nigri group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus ochraceus	is a member of Aspergillus sect. circumdati group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus parasiticus	is a member of Aspergillus sect. flavi group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.

Species/Group	Matching Hint	References
Aspergillus ruber	is a member of Aspergillus sect. aspergillus group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus sclerotiorum	is a member of Aspergillus sect. circumdati group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus sydowii	is a member of Aspergillus sect. nidulantes group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.
Aspergillus tamarii	is a member of Aspergillus sect. flavi group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.
Aspergillus terreus	is a member of Aspergillus sect. terri group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus tritici	is a member of Aspergillus sect. candidi group or closely related	Varga, J., Frisvad, J.C., Samson, R.A., 2007. Polyphasic taxonomy of Aspergillus section Candidi based on molecular, morphological and physiological data. Studies in Mycology 59, 75–88.

Species/Group	Matching Hint	References
Aspergillus unguis	is a member of Aspergillus sect. nidulantes group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.
Aspergillus ustus	is a member of Aspergillus sect. usti group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Aspergillus versicolor	is a member of Aspergillus sect. nidulantes group or closely related	Visagie, C.M., Houbraken, J., 2020. Updating the taxonomy of Aspergillus in South Africa. Stud. Mycol. 95, 253–292.
Aspergillus westerdijkiae	is a member of Aspergillus sect. circumdati group or closely related	Houbraken, J., Kocsubé, S., Visagie, C.M., Yilmaz, N., Wang, X.- C., Meijer, M., Kraak, B., Hubka, V., Bensch, K., Samson, R.A., Frisvad, J.C., 2020. Classification of Aspergillus, Penicillium, Talaromyces and related genera (Eurotiales): An overview of families, genera, subgenera, sections, series and species. Studies in Mycology 95, 5–169.
Boeremia exigua	is a member of Boeremia group or closely related	Marin-Felix, Y., Groenewald, J.Z., Cai, L., Chen, Q., Marincowitz, S., Barnes, I., Bensch, K., Braun, U., Camporesi, E., Damm, U., de Beer, Z.W., Dissanayake, A., Edwards, J., Giraldo, A., Hernández-Restrepo, M., Hyde, K.D., Jayawardena, R.S., Lombard, L., Luangsa-ard, J., McTaggart, A.R., Rossman, A.Y., Sandoval-Denis, M., Shen, M., Shivas, R.G., Tan, Y.P., van der Linde, E.J., Wingfield, M.J., Wood, A.R., Zhang, J.Q., Zhang, Y., Crous, P.W., 2017. Genera of phytopathogenic fungi: GOPHY 1. Studies in Mycology 86, 99–216.

Species/Group	Matching Hint	References
Botrytis aclada	is a member of Botrytis 1 group or closely related	Walker, A.-S., 2016. Diversity Within and Between Species of Botrytis, in: Fillinger, S., Elad, Y. (Eds.), Botrytis – the Fungus, the Pathogen and Its Management in Agricultural Systems. Springer International Publishing, Cham, pp. 91–125.
Botrytis cinerea	is a member of Botrytis 1 group or closely related	Walker, A.-S., 2016. Diversity Within and Between Species of Botrytis, in: Fillinger, S., Elad, Y. (Eds.), Botrytis – the Fungus, the Pathogen and Its Management in Agricultural Systems. Springer International Publishing, Cham, pp. 91–125.
Byssochlamys fulva	is a member of Byssochlamys 1 group or closely related	Samson, R.A., Houbraken, J., Varga, J., Frisvad, J.C., 2009. Polyphasic taxonomy of the heat resistant ascomycete genus Byssochlamys and its Paecilomyces anamorphs. Pers - Int Mycol J 22, 14–27.
Byssochlamys nivea	is a member of Byssochlamys 1 group or closely related	Samson, R.A., Houbraken, J., Varga, J., Frisvad, J.C., 2009. Polyphasic taxonomy of the heat resistant ascomycete genus Byssochlamys and its Paecilomyces anamorphs. Pers - Int Mycol J 22, 14–27.
Byssochlamys spectabilis	synonym of Paecilomyces variotii	Houbraken, Jos, János Varga, Emilia Rico-Munoz, Shawn Johnson, and Robert A. Samson. 2008. Sexual Reproduction as the Cause of Heat Resistance in the Food Spoilage Fungus Byssochlamys Spectabilis (Anamorph Paecilomyces Variotii). Applied and Environmental Microbiology 74(5):1613–19. doi: 10.1128/AEM.01761-07.
Chaetomium globosum	is a member of Chaetomium 2 group or closely related	Wang, X.W., Lombard, L., Groenewald, J.Z., Li, J., Videira, S.I.R., Samson, R.A., Liu, X.Z., Crous, P.W., 2016. Phylogenetic reassessment of the Chaetomium globosum species complex. Pers - Int Mycol J 36, 83–133.

Species/Group	Matching Hint	References
Cladosporium cladosporioides	is a member of Cladosporium cladosporioides complex	Sandoval-Denis, M., Gené, J., Sutton, D.A., Wiederhold, N.P., Cano-Lira, J.F., Guarro, J., 2016. New species of Cladosporium associated with human and animal infections. Pers - Int Mycol J 36, 281–298.
Cladosporium halotolerans	closely related to Cladosporium sphaerospermum and not definitely distinguishable at the moment	N/A
Cladosporium herbarum	is a member of Cladosporium herbarum complex	Sandoval-Denis, M., Gené, J., Sutton, D.A., Wiederhold, N.P., Cano-Lira, J.F., Guarro, J., 2016. New species of Cladosporium associated with human and animal infections. Pers - Int Mycol J 36, 281–298.
Cladosporium sphaerospermum	closely related to Cladosporium halotolerans and not definitely distinguishable at the moment	N/A
Cladosporium macrocarpum	is a member of Cladosporium herbarum complex	Sandoval-Denis, M., Gené, J., Sutton, D.A., Wiederhold, N.P., Cano-Lira, J.F., Guarro, J., 2016. New species of Cladosporium associated with human and animal infections. Pers - Int Mycol J 36, 281–298.
Clonostachys rosea	is a member of Clonostachys sect. clonostachys group or closely related	Forin, N., Vizzini, A., Nigris, S., Ercole, E., Voyron, S., Girlanda, M., Baldan, B., 2020. Illuminating type collections of nectriaceous fungi in Saccardo's fungarium. persoonia 45, 221–249.
Colletotrichum gloeosporioides	synonym of Colletotrichum aeschynomenes	N/A
Coniochaeta luteorubra	synonym of Coniochaeta hoffmannii	N/A
Dichotomopilus funicola	is a member of Dichotomopilus gen. nov. group or closely related	Wang, X.W., Houbraken, J., Groenewald, J.Z., Meijer, M., Andersen, B., Nielsen, K.F., Crous, P.W., Samson, R.A., 2016. Diversity and taxonomy of Chaetomium and chaetomium-like fungi from indoor environments. Studies in Mycology 84, 145– 224.

Species/Group	Matching Hint	References
Didymella glomerata	is a member of Didymella peyronellaea - clade group or closely related	Scarpari, M., Vitale, S., Di Giambattista, G., Luongo, L., De Gregorio, T., Schreiber, G., Petrucci, M., Belisario, A., Voglmayr, H., 2020. Didymella corylicola sp. nov., a new fungus associated with hazelnut fruit development in Italy. Mycol Progress 19, 317– 328.
Didymella pomorum	is a member of Didymella sect. didymella group or closely related	Keirnan, E.C., Tan, Y.P., Laurence, M.H., Mertin, A.A., Liew, E.C.Y., Summerell, B.A., Shivas, R.G., 2021. Cryptic diversity found in Didymellaceae from Australian native legumes. MC 78, 1–20.
Epicoccum nigrum	is a member of Epicoccum group or closely related	Chen, Q., Hou, L.W., Duan, W.J., Crous, P.W., Cai, L., 2017. Didymellaceae revisited. Studies in Mycology 87, 105–159.
Fusarium cerealis	closely related to Fusarium graminearum, Fusarium sambucinum SC group and not definitely distinguishable at the moment	Stępniewska, H., Jankowiak, R., Bilański, P., Hausner, G., 2021. Structure and Abundance of Fusarium Communities Inhabiting the Litter of Beech Forests in Central Europe. Forests 12, 811.
Fusarium culmorum	closely related to Fusarium graminearum, Fusarium sambucinum SC group and not definitely distinguishable at the moment	Stępniewska, H., Jankowiak, R., Bilański, P., Hausner, G., 2021. Structure and Abundance of Fusarium Communities Inhabiting the Litter of Beech Forests in Central Europe. Forests 12, 811.
Fusarium delphinoides	is a member of Fusarium dimerum species group or closely related	Schroers, H.-J., O'Donnell, K., Lamprecht, S.C., Kammeyer, P.L., Johnson, S., Sutton, D.A., Rinaldi, M.G., Geiser, D.M., Summerbell, R.C., 2009. Taxonomy and phylogeny of the Fusarium dimerum species group. Mycologia 101, 44–70.
Fusarium dimerum	is a member of Fusarium dimerum species group or closely related	Schroers, H.-J., O'Donnell, K., Lamprecht, S.C., Kammeyer, P.L., Johnson, S., Sutton, D.A., Rinaldi, M.G., Geiser, D.M., Summerbell, R.C., 2009. Taxonomy and phylogeny of the Fusarium dimerum species group. Mycologia 101, 44–70.

Species/Group	Matching Hint	References
Fusarium graminearum	closely related to Fusarium cerealis_culmorum, Fusarium sambucinum SC group and not definitely distinguishable at the moment	Stępniewska, H., Jankowiak, R., Bilański, P., Hausner, G., 2021. Structure and Abundance of Fusarium Communities Inhabiting the Litter of Beech Forests in Central Europe. Forests 12, 811.
Fusarium incarnatum	is a member of Fusarium fujikuroi species complex	Villani, A., Proctor, R.H., Kim, H.-S., Brown, D.W., Logrieco, A.F., Amatulli, M.T., Moretti, A., Susca, A., 2019. Variation in secondary metabolite production potential in the Fusarium incarnatum-equiseti species complex revealed by comparative analysis of 13 genomes. BMC Genomics 20, 314.
Fusarium oxysporum	closely related to Fusarium proliferatum, Fusarium verticillioides and not definitely distinguishable at the moment	N/A
Fusarium petroliphilum	synonym of Fusarium solani var. petroliphilum	N/A
Fusarium proliferatum	is a member of Fusarium fujikuroi species complex	Villani, A., Proctor, R.H., Kim, H.-S., Brown, D.W., Logrieco, A.F., Amatulli, M.T., Moretti, A., Susca, A., 2019. Variation in secondary metabolite production potential in the Fusarium incarnatum-equiseti species complex revealed by comparative analysis of 13 genomes. BMC Genomics 20, 314.
Fusarium solani	is a member of Fusarium solani complex	Al-Hatmi, Abdullah M. S., Sarah A. Ahmed, Anne D. van Diepeningen, Miranda Drogari-Apiranthitou, Paul E. Verweij, Jacques F. Meis, and G. Sybren de Hoog. 2018. Fusarium Metavorans Sp. Nov.: The Frequent Opportunist 'FSSC6.' Medical Mycology 56:S144–52. doi: 10.1093/mmy/myx107.

Species/Group	Matching Hint	References
Fusarium sporotrichioides	is a member of Fusarium sambucinum group or closely related	Villani, A., Proctor, R.H., Kim, H.-S., Brown, D.W., Logrieco, A.F., Amatulli, M.T., Moretti, A., Susca, A., 2019. Variation in secondary metabolite production potential in the Fusarium incarnatum-equiseti species complex revealed by comparative analysis of 13 genomes. BMC Genomics 20, 314.
Fusarium verticillioides	is a member of Fusarium fujikuroi species complex	Villani, A., Proctor, R.H., Kim, H.-S., Brown, D.W., Logrieco, A.F., Amatulli, M.T., Moretti, A., Susca, A., 2019. Variation in secondary metabolite production potential in the Fusarium incarnatum-equiseti species complex revealed by comparative analysis of 13 genomes. BMC Genomics 20, 314.
Lomentospora prolificans	closely related to Petriella setifera and not definitely distinguishable at the moment	N/A
Monascus ruber	is a member of Monascus section rubri group or closely related	Barbosa, R. N., S. L. Leong, O. Vinnere-Pettersson, A. J. Chen, C. M. Souza-Motta, J. C. Frisvad, R. A. Samson, N. T. OlBarbosa, R. N., S. L. Leong, O. Vinnere-Pettersson, A. J. Chen, C. M. Souza-Motta, J. C. Frisvad, R. A. Samson, N. T. Oliveira, and J. Houbraken. 2017. Phylogenetic Analysis of Monascus and New Species from Honey, Pollen and Nests of Stingless Bees. Studies in Mycology 86(1):29-51. doi: 10.1016/j.simyco.2017.04.001.
Mortierella angusta	is a member of Mortierella angusta group or closely related	Wagner, L., Stielow, B., Hoffmann, K., Petkovits, T., Papp, T., Vágvölgyi, C., de Hoog, G.S., Verkley, G., Voigt, K., 2013. A comprehensive molecular phylogeny of the Mortierellales (Mortierellomycotina) based on nuclear ribosomal DNA. Pers - Int Mycol J 30, 77–93.
***Neoscytalidium* sp**	synonym of Scytalidium sp.	N/A

Species/Group	Matching Hint	References
Ovatospora brasiliensis	is a member of Ovatospora gen. nov. group or closely related	Wang, X.W., Houbraken, J., Groenewald, J.Z., Meijer, M., Andersen, B., Nielsen, K.F., Crous, P.W., Samson, R.A., 2016. Diversity and taxonomy of Chaetomium and chaetomium-like fungi from indoor environments. Stud. Mycol. 84, 145–224.
***Ovatospora* sp**	synonym of Chaetomium sp.	N/A
Paecilomyces laguncullariae	synonym of Byssochlamys nivea	N/A
Penicillium aurantiogriseum	is a member of Penicillium clade 15-23 group or closely related	Houbraken, J., Samson, R.A., 2011. Phylogeny of Penicillium and the segregation of Trichocomaceae into three families. Studies in Mycology 70, 1–51.
Penicillium brevicompactum	is a member of Penicilium sect. brevicompacta group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium camemberti	is a member of Penicilium sect. fasciculata group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.

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Penicillium chrysogenum	is a member of Penicillium sect. chrysogena group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium citreonigrum	is a member of Penicillium sect. exilicaulis group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium citrinum	is a member of Penicilium sect. citrina group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium commune	is a member of Penicilium sect. fasciculata group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.

Species/Group	Matching Hint	References
Penicillium corylophilum	is a member of Penicilium sect. exilicaulis group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium cyclopium	is a member of Penicilium sect. fasciculata group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium digitatum	is a member of Penicillium clade 15-23 group or closely related	Houbraken, J., Samson, R.A., 2011. Phylogeny of Penicillium and the segregation of Trichocomaceae into three families. Studies in Mycology 70, 1–51.
Penicillium expansum	is a member of Penicillium clade 15-23 group or closely related	Houbraken, J., Samson, R.A., 2011. Phylogeny of Penicillium and the segregation of Trichocomaceae into three families. Studies in Mycology 70, 1–51.
Penicillium fellutanum	is a member of Penicillium sect. charlesii / sect. sclerotiora group or closely related	Houbraken, J., Samson, R.A., 2011. Phylogeny of Penicillium and the segregation of Trichocomaceae into three families. Studies in Mycology 70, 1–51.
Penicillium glabrum	is a member of Penicillium glabrum complex	Barreto, M. C., Houbraken, J., Samson, R.A., Frisvad, J.C., San- Romão, M.V., and Barreto, M.C., Houbraken, J., Samson, R.A., Frisvad, J.C., San- Romão, M.V. 2011. Taxonomic Studies of the Penicillium Glabrum Complex and the Description of a New Species P. Subericola. Fungal Diversity 49:23–33. doi: 10.1007/s13225-011-0090-4.

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Penicillium italicum	is a member of Penicillium clade 15-23 group or closely related	Houbraken, J., Samson, R.A., 2011. Phylogeny of Penicillium and the segregation of Trichocomaceae into three families. Studies in Mycology 70, 1–51.
Penicillium menonorum	closely related to Penicilium sect. exilicaulis and not definitely distinguishable at the moment	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium namyslowskii	is a member of Penicillium sect. exilicaulis group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium olsonii	is a member of Penicilium sect. brevicompacta group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium onobense	is a member of Penicillium ser. simplicissima group or closely related	Hotta, Y., Sato, J., Sato, H., Hosoda, A., Tamura, H., 2011. Classification of the Genus Bacillus Based on MALDI-TOF MS Analysis of Ribosomal Proteins Coded in S10 and spc Operons. J. Agric. Food Chem. 110415093730042.

Species/Group	Matching Hint	References
Penicillium pimiteouiense	is a member of Penicilium sect. exilicaulis group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium roqueforti	is a member of Penicillium sect. roquefortorum group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium singorense	is a member of Penicillium ser. dalearum group or closely related	Hotta, Y., Sato, J., Sato, H., Hosoda, A., Tamura, H., 2011. Classification of the Genus Bacillus Based on MALDI-TOF MS Analysis of Ribosomal Proteins Coded in S10 and spc Operons. J. Agric. Food Chem. 110415093730042.
Penicillium turbatum	is a member of Penicillium sect. turbata group or closely related	Houbraken, J., S. Kocsubé, C. M. Visagie, N. Yilmaz, X. C. Wang, M. Meijer, B. Kraak, V. Hubka, K. Bensch, R. A. Samson, and J. C. Frisvad. 2020. Classification of Aspergillus, Penicillium, Talaromyces and Related Genera (Eurotiales): An Overview of Families, Genera, Subgenera, Sections, Series and Species. Studies in Mycology 95:5–169. doi: 10.1016/j.simyco.2020.05.002.
Penicillium verrucosum	is a member of Penicillium clade 15-23 group or closely related	Houbraken, J., Samson, R.A., 2011. Phylogeny of Penicillium and the segregation of Trichocomaceae into three families. Studies in Mycology 70, 1–51.

Species/Group	Matching Hint	References
Petriella setifera	closely related to Lomentospora prolificans and not definitely distinguishable at the moment	Vebliza, Y., W. Sjamsuridzal, A. Oetari, I. Santoso, and I. G. Roosheroe. 2018. Re-Identification of Five Strains of Rhizopus Arrhizus from Tempeh Based on ITS Regions of RDNA Sequence Data. P. 020167 in. Bali, Indonesia.
Phialemoniopsis curvata	synonym of Thyridium curvatum	Sugita, Ryosuke, and Kazuaki Tanaka. 2022. Thyridium Revised: Synonymisation of Phialemoniopsis under Thyridium and Establishment of a New Order, Thyridiales. MycoKeys 86:147–76. doi: 10.3897/mycokeys.86.78989.
Plectosphaerella cucumerina	is a member of Plectosphaerella 1 group or closely related	Su, Lei, Hui Deng, and Yong-Chun Niu. 2017. Phylogenetic Analysis of Plectosphaerella Species Based on Multi-Locus DNA Sequences and Description of P. Sinensis Sp. Nov. Mycol Progress 16:823–29. doi: 10.1007/s11557-017-1319-8.
Rasamsonia argillacea	is a member of Rasamsonia clade a group or closely related	Houbraken, J., Giraud, S., Meijer, M., Bertout, S., Frisvad, J.C., Meis, J.F., Bouchara, J.P., Samson, R.A., 2013. Taxonomy and Antifungal Susceptibility of Clinically Important Rasamsonia Species. J Clin Microbiol 51, 22–30.
Rhizopus oryzae	synonym of Rhizopus arrhizus	Vebliza, Y., W. Sjamsuridzal, A. Oetari, I. Santoso, and I. G. Roosheroe. 2018. Re-Identification of Five Strains of Rhizopus Arrhizus from Tempeh Based on ITS Regions of RDNA Sequence Data. P. 020167 in. Bali, Indonesia.
Scopulariopsis brevicaulis	is a member of Scopulariopsis sec. scopulariopsis group or closely related	Sandoval-Denis, M., Gené, J., Sutton, D.A., Cano-Lira, J.F., de Hoog, G.S., Decock, C.A., Wiederhold, N.P., Guarro, J., 2016. Redefining Microascus, Scopulariopsis and allied genera. Pers - Int Mycol J 36, 1–36.

Species/Group	Matching Hint	References
Sporothrix schenckii	is a member of Sporothrix species strains group or closely related	Zhang, Y., Hagen, F., Stielow, B., Rodrigues, A.M., Samerpitak, K., Zhou, X., Feng, P., Yang, L., Chen, M., Deng, S., Li, S., Liao, W., Li, R., Li, F., Meis, J.F., Guarro, J., Teixeira, M., Al-Zahrani, H.S., de Camargo, Z.P., Zhang, L., de Hoog, G.S., 2015. Phylogeography and evolutionary patterns in Sporothrix spanning more than 14 000 human and animal case reports. Pers - Int Mycol J 35, 1–20.
Stachybotrys chartarum	closely related to Stachybotrys chlorohalonata and not definitely distinguishable at the moment	N/A
Stachybotrys chlorohalonata	closely related to Stachybotrys chartarum and not definitely distinguishable at the moment	N/A
Stachybotrys echinata	is a member of Stachybotryaceae group or closely related	Tibpromma, S., Boonmee, S., Wijayawardene, N.N., Maharachchikumbura, S.S.N., Mckenzie, E.H.C., Bahkali, A.H., E.B. Gareth, J.E.B., Hyde, K.D., Promputtha, I., 2016. The holomorph of arasarcopodium (Stachybotryaceae), introducing P. pandanicola sp. nov. on Pandanus sp. Phytotaxa 266, 250.
Talaromyces duclauxii	is a member of Talaromyces sect. talaromyces group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MC 68, 75–113.
Talaromyces funiculosus	is a member of Talaromyces sect. talaromyces group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MC 68, 75–113.
Talaromyces macrosporus	is a member of Talaromyces sect. talaromyces group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MC 68, 75–113.

Species/Group	Matching Hint	References
Talaromyces pseudostromaticus	is a member of Talaromyces sect. purpurei group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MC 68, 75–113.
Talaromyces ruber	is a member of Talaromyces sect. talaromyces group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MC 68, 75–113.
Talaromyces rugulosus	is a member of Talaromyces sect. islandici group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MC 68, 75–113.
Talaromyces trachyspermus	is a member of Talaromyces sect. trachyspermi group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MycoKeys 68, 75–113.
Talaromyces wortmannii	is a member of Talaromyces sect. talaromyces group or closely related	Sun, B.-D., Chen, A.J., Houbraken, J., Frisvad, J.C., Wu, W.-P., Wei, H.-L., Zhou, Y.-G., Jiang, X.-Z., Samson, R.A., 2020. New section and species in Talaromyces. MycoKeys 68, 75–113.
Thanatephorus cucumeris	synonym of Bjerkandera adusta	N/A
Trichoderma fertile	is a member of Trichoderma sect. semiorbis group or closely related	Jaklitsch, W.M., Voglmayr, H., 2015. Biodiversity of Trichoderma (Hypocreaceae) in Southern Europe and Macaronesia. Stud. Mycol. 80, 1–87.
Trichoderma hamatum	is a member of Trichoderma section hamatum* clade group or closely related	Druzhinina, I.S., Kopchinskiy, A.G., Kubicek, C.P., 2006. The first 100 Trichoderma species characterized by molecular data. Mycoscience 47, 55–64.

Species/Group	Matching Hint	References
Trichoderma harzianum	is a member of Trichoderma harzianum species complex	Chaverri, P., Branco-Rocha, F., Jaklitsch, W., Gazis, R., Degenkolb, T., Samuels, G.J., 2015. Systematics of the Trichoderma harzianum species complex and the re-identification of commercial biocontrol strains. Mycologia 107, 558–590.
Trichoderma longibrachiatum	is a member of Trichoderma section longibrachiatum group or closely related	Druzhinina, I.S., Kopchinskiy, A.G., Kubicek, C.P., 2006. The first 100 Trichoderma species characterized by molecular data. Mycoscience 47, 55–64.
Trichoderma orientale	is a member of Trichoderma section longibrachiatum group or closely related	Druzhinina, I.S., Kopchinskiy, A.G., Kubicek, C.P., 2006. The first 100 Trichoderma species characterized by molecular data. Mycoscience 47, 55–64.
Trichoderma polysporum	is a member of Trichoderma section polysporum clade group or closely related	Jaklitsch, W.M., Voglmayr, H., 2015. Biodiversity of Trichoderma (Hypocreaceae) in Southern Europe and Macaronesia. Stud. Mycol. 80, 1–87.
Trichoderma reesei	is a member of Trichoderma section longibrachiatum group or closely related	Jaklitsch, W.M., Voglmayr, H., 2015. Biodiversity of Trichoderma (Hypocreaceae) in Southern Europe and Macaronesia. Stud. Mycol. 80, 1–87.
***Trichophyton mentagrophytes*_group**	is a member of Trichophyton mentagrophytes group or closely related	Gräser, Y., Kuijpers, A.F.A., Presber, W., De Hoog, G.S., 2008. Molecular taxonomy of Trichophyton mentagrophytes and T. tonsurans: Taxonomy of dermatophytes. Med Mycol 37, 315–330.
***Trichophyton rubrum*_group**	is a member of Trichophyton rubrum group or closely related	Gräser, Y., Kuijpers, A.F.A., Presber, W., de Hoog, G.S., 2000. Molecular Taxonomy of the Trichophyton rubrum Complex. Journal of Clinical Microbiology 38, 3329–3336.
Trichophyton terrestre	synonym of Arthroderma quadrifidum	N/A

Species/Group	Matching Hint	References
Trichurus spiralis	is a member of Cephalotrichum gorgonifer group or closely related	Sandoval-Denis, M., Guarro, J., Cano-Lira, J.F., Sutton, D.A., Wiederhold, N.P., de Hoog, G.S., Abbott, S.P., Decock, C., Sigler, L., Gené, J., 2016. Phylogeny and taxonomic revision of Microascaceae with emphasis on synnematous fungi. Studies in Mycology 83, 193–233.

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