

Clinical Isolates of *Talaromyces marneffei* and Related Species, California, USA

Appendix

Appendix Table 1. Source of *Talaromyces* isolates

Isolate ID	Culture source	Age/sex	Species
MDL17022	Blood sample	37/M	<i>T. marneffei</i>
MDL17026	Sputum sample	53 /F	<i>T. atrovireus</i>
MDL17144	Ear	9 /M	<i>T. atrovireus</i>
MDL17164	Nail	85/M	<i>T. atrovireus</i>
MDL18026	Skin tissue	36/M	<i>T. marneffei</i>
MDL18054	Sputum	52/F	<i>T. stollii</i>
MDL18070	Bronchial wash	73/F	<i>T. atrovireus</i>
MDL18102	Bronchoalveolar lavage sample	59/F	<i>T. coalescens</i>
MDL18159	Bronchoscopy sample	72/F	<i>T. australis</i>
MDL18167	Bronchial wash	63/M	<i>T. islandicus</i>

Appendix Table 2. Identification of *Talaromyces* isolates by matrix-assisted laser desorption/ionization–time of flight mass spectrometry*

Isolate	Species ID by sequencing	Bruker and NIH database†		Bruker, NIH, and MDL database	
		Best match	Best score	Best match	Best score
MDL17022	<i>T. marneffei</i>	<i>T. marneffei</i>	1.22	<i>T. marneffei</i>	2.31
MDL17026	<i>T. atrovireus</i>	No ID	–	<i>T. atrovireus</i>	2.18
MDL17144	<i>T. atrovireus</i>	No ID	–	<i>T. atrovireus</i>	2.30
MDL17164	<i>T. atrovireus</i>	No ID	–	<i>T. atrovireus</i>	2.57
MDL18026	<i>T. marneffei</i>	No ID	–	<i>T. marneffei</i>	2.17
MDL18054	<i>T. stollii</i>	<i>T. ruber</i>	1.78	<i>T. stollii</i>	2.36
MDL18070	<i>T. atrovireus</i>	No ID	–	<i>T. atrovireus</i>	2.23
MDL18102	<i>T. coalescens</i>	No ID	–	<i>T. coalescens</i>	2.02
MDL18159	<i>T. australis</i>	<i>Talaromyces spp.</i>	1.38	<i>T. australis</i>	2.31
MDL18167	<i>T. islandicus</i>	No ID	–	<i>T. islandicus</i>	2.02

*ID, identification; MDL, Microbial Diseases Laboratory, California Department of Public Health; NIH, National Institutes of Health. Dash indicates .
 †Bruker Filamentous Fungi Library 2.0 and NIH Mold Library (Lau AF, Drake SK, Calhoun LB, Henderson CM, Zelazny AM. Development of a clinically comprehensive database and a simple procedure for identification of molds from solid media by matrix-assisted laser desorption ionization-time of flight mass spectrometry. J Clin Microbiol. 2013;51:828–34).

Appendix Table 3. Growth study of *Talaromyces* isolates*

Isolate ID	Species ID	37°C growth on SDA	Colony characteristics on SDA 30°C		Red soluble pigment†							
					3 d				7 d			
					SDA		E-SDA		SDA		E-SDA	
25	30	25	30	25	30	25	30					
MDL17022	<i>T. marneffei</i>	+	Yellowish white, velvety	Yellowish green, reddish brown, floccose	+	+	+	+	+	+	+	+
MDL17026	<i>T. atrovireus</i>	+	Blue green, felty	Blue green, floccose, white center	–	–	–	–	–	–	–	–
MDL17144	<i>T. atrovireus</i>	+	White, downy	Dark blue green, velvety, red center	–	–	–	–	–	+	+	+
MDL17164	<i>T. atrovireus</i>	+	White, downy	Dark blue green, floccose, yellow center	–	–	–	–	–	+	–	–
MDL18026	<i>T. marneffei</i>	+	Yellowish green, powdery	Yellowish green, pinkish brown, floccose	+	+	+	+	+	+	+	+
MDL18054	<i>T. stollii</i>	+	White, floccose	White, floccose	–	–	+	–	+	–	+	–
MDL18070	<i>T. atrovireus</i>	+	White, downy	Blue green, reddish brown, floccose	–	–	–	–	+	+	+	–
MDL18102	<i>T. coalescens</i>	–	Whitish green, downy	Whitish-green, floccose	–	–	–	–	–	–	–	–

Isolate ID	Species ID	37°C growth on SDA	Colony characteristics on SDA 30°C		Red soluble pigment†							
					3 d		7 d		3 d		7 d	
					SDA	E-SDA	SDA	E-SDA	SDA	E-SDA	SDA	E-SDA
MDL18159	<i>T. australis</i>	+	White, red, floccose	Red, floccose	-	+	+	+	+	+	+	
MDL18167	<i>T. islandicus</i>	+	Green, orange, felty	Dark green, felty, orange edge	-	-	-	-	-‡	-‡	-‡	

*E-SDA, Sabouraud dextrose agar, Emmons; SDA, Sabouraud dextrose agar; +, positive ; -, negative.

†Red soluble pigment producing was observed at 25°C and 30°C.

‡*T. islandicus* produces yellow-orange soluble pigment.

Appendix Table 4. *Talaromyces* isolate reference sequences and their GenBank accession numbers*

Species	Collection no.	ITS	BenA	RPB1
<i>T. allahabadensis</i>	CBS 304.63	KF984873	KF984614	JN680309
<i>T. amestolkiae</i>	CBS 132696	JX315660	JX315623	JX315679
<i>T. apiculatus</i>	CBS 312.59	JN899375	KF741916	JN680293
<i>T. assiutensis</i>	CBS 147.78	JN899323	KJ865720	JN680275
<i>T. atroroseus</i>	CBS 364.48	KF114740	KF114790	KF114750
<i>T. convolutus</i>	CBS 100537	JN899330	KF114773	JN121553
<i>T. dendriticus</i>	CBS 660.80	JN899339	JX091391	JN121714
<i>T. dextii</i>	CBS 412.89	JN899327	JX494306	JN680306
<i>T. flavus</i>	CBS 310.38	JN899360	JX494302	JN121639
<i>T. funiculosus</i>	CBS 272.86	JN899377	JX091383	JN680288
<i>T. helicus</i>	CBS 335.48	JN899359	KJ865725	JN680300
<i>T. islandicus</i>	CBS 338.48	KF984885	KF984655	JN121648
<i>T. marneffeii</i>	ATCC 18224	NW_002196683	NW_002196666	NW_002196662
<i>T. palmae</i>	CBS 442.88	JN899396	HQ156947	JN680308
<i>T. pittii</i>	CBS 139.84	JN899325	KJ865728	JN680274
<i>T. proteolyticus</i>	CBS 303.67	JN899387	KJ865729	JN680292
<i>T. purpureus</i>	CBS 475.71	JN899328	GU385739	JN121687
<i>T. stollii</i>	CBS 408.93	JX315674	JX315633	JX315693
<i>T. trachyspermus</i>	CBS 373.48	JN899354	KF114803	JN121664
<i>T. unicus</i>	CBS 100535	JN899336	KJ865735	JN680324
<i>T. varians</i>	CBS 386.48	JN899368	KJ865731	JN680305
<i>T. viridulus</i>	CBS 252.87	JN899314	JX091385	JN680284
<i>Trichocomma paradoxa</i>	CBS 788.83	JN899398	KF984556	JN121718

*ATCC, American Type Culture Collection; BenA: β -tubulin gene; CBS, Westerdijk Fungal Biodiversity Institute, Utrecht, the Netherlands; ITS, internal transcribed spacer; RPB1, RNA polymerase II largest subunit gene.