

Table S1: Mucorales strains used in this study.

species	internal ID	CBS number	origin of isolation
<i>L. corymbifera</i>	L1	CBS 429.75	environment, soil
	AS15		patient isolate
	AS17		patient isolate,
	AS30		patient isolate,
	AS103		patient isolate, tracheal secrete
<i>L. ramosa</i>	LC4	CBS 109940	patient isolate, skin
	L6	CBS 582.65	environment, seed
	LR5	CBS 101.55	patient isolate, cornea
	AS35		patient isolate
	AS64		patient isolate, sputum
	33-12		patient isolate, bronchial secretion
<i>R. microsporus</i>	F50	CBS 102277	patient isolate
	RM1		patient isolate, rhinocerebral infection
	AS37		patient isolate
	AS73		patient isolate
	31-10		patient isolate, tissue sample
<i>R. arrhizus</i>	44-12		patient isolate, tracheal secrete
	R6		environment
	31-10		environment
	R2	CBS 126971	patient isolate
<i>Rh. pusillus</i>	Rh1		environment
	F12		patient isolate, liver
	2-11		patient isolate, sputum
	RP3	CBS 219.31	isolated from pig, kidney
<i>M. circinelloides</i>	S44		patient isolate
	39-10		patient isolate, skin swab
	AS84		patient isolate
	MC6	CBS 394.68	isolated from beef meat

Table S2: *Mucorales* member exhibited different spore size and form.

<i>Mucorales</i> members	Spore diameter (μm)	spore form
<i>L. corymbifera</i> (n=5)	2.8-4.2 μm	spherical/ellipsoidal
<i>L. ramosa</i> (n=3)	2.5-4.1 μm	spherical/ellipsoidal
<i>Rh. pusillus</i> (n=2)	2.8-4.2 μm	spherical
<i>R. arrhizus</i> (n=2)	5.5-7.8 μm	ellipsoidal
<i>R. microsporus</i> (n=4)	5.8-9.1 μm	ellipsoidal
<i>M. circinelloides</i> (n=3)	4.5-7.2 μm	ellipsoidal

Table S3: Species-specific antifungal susceptibility patterns against L-AMB, POS, ISA and NYT-IL. MICs were determined after 24h at 37°C according to EUCAST guidelines⁴⁷.

species	L-AMB		POS		ISA		NYT		NYT-IL	
	range	median	range	Median	range	median	range	median	range	median
<i>L. corymbifera</i> (n=6)	0.25 - 0.5	0.5	0.5 - 1	1	1 - 2	2	8 - 8	8	1 - 2	1
<i>L. ramosa</i> (n=5)	0.25 - 0.5	0.25	1 - 2	2	4 - 8	4	6 - 8	8	2 - 4	2
<i>Rh. pusillus</i> (n=4)	0.25 - 0.5	0.25	1 - 2	1	2 - 4	2	2 - 2	2	1 - 2	1
<i>R. arrhizus</i> (n=4)	0.5 - 0.5	0.5	1 - 2	1	0.5 - 1	0.5	1 - 2	2	1 - 2	1
<i>R. microsporus</i> (n=5)	0.25 - 0.5	0.5	1 - 2	2	0.5 - 8	0.5	4 - 8	4	1 - 8	4
<i>M. circinelloides</i> (n=4)	0.25 - 0.5	0.5	1 - 4	2	4 - 8	8	1 - 2	2	1 - 2	1

Table S4: Survival rates of larvae infected with mucormycetes and incubated at 30°C. Average survival was calculated out of 60 infected larvae, stev indicates standard deviation.

samples	inoculum	average survival 24h	stev	average survival 48h	stev	average survival 72h	stev	average survival 96h	stev	average survival 120h	stev	average survival 144h	stev
IPS		10.0	0.0	10.0	0.0	9.9	0.4	9.9	0.4	9.7	0.5	9.4	0.5
untouched		10.0	0.0	10.0	0.0	10.0	0.0	9.9	0.4	9.8	0.5	9.4	0.5
<i>R. microsporus</i>	10 ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁶	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁵	10.0	0.0	8.4	1.7	3.2	1.5	1.6	1.1	0.8	0.4	0.8	0.4
	10 ⁴	10.0	0.0	9.8	0.5	9.0	0.0	8.5	1.0	7.5	1.7	7.0	1.8
<i>R. arrhizus</i>	10 ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁶	9.8	0.5	5.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁵	10.0	0.0	5.8	1.0	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁴	10.0	0.0	9.7	0.6	5.7	1.2	3.0	1.0	2.7	1.5	1.7	0.6
<i>Rh. pusillus</i>	10 ⁷	8.3	1.2	8.3	1.2	8.0	1.0	7.3	1.5	7.3	1.5	6.7	1.2
	10 ⁶	9.5	0.7	9.0	1.4	9.0	1.4	9.0	1.4	9.0	1.4	9.0	1.4
	10 ⁵	10.0	0.0	10.0	0.0	10.0	0.0	9.3	1.0	9.3	1.0	9.3	1.0
	10 ⁴	9.5	0.6	9.5	0.6	9.5	0.6	9.5	0.6	9.5	0.6	9.0	0.8
<i>L. corymbifera</i>	10 ⁷	7.8	1.5	7.3	2.4	7.0	2.2	6.5	2.1	6.5	2.1	6.0	1.6
	10 ⁶	10.0	0.0	9.5	0.7	9.0	0.0	9.0	0.0	9.0	0.0	8.5	0.7
	10 ⁵	9.8	0.5	9.8	0.5	9.5	0.6	9.5	0.6	8.3	1.0	8.0	0.8
	10 ⁴	10.0	0.0	10.0	0.0	10.0	0.0	10.0	0.0	9.5	1.0	9.5	1.0
<i>L. ramosa</i>	10 ⁷	9.7	0.6	9.7	0.6	9.3	1.2	9.0	1.7	8.7	1.5	8.0	1.7
	10 ⁶	9.5	0.7	9.5	0.7	9.5	0.7	9.5	0.7	9.0	1.4	7.5	0.7
	10 ⁵	9.8	0.5	9.8	0.5	9.0	1.2	9.0	1.2	8.8	1.5	8.8	1.5
	10 ⁴	10.0	0.0	9.5	1.0	9.5	1.0	9.5	1.0	9.0	1.4	8.8	1.3
<i>M. circinelloides</i>	10 ⁷	6.3	2.3	5.3	0.6	5.0	1.0	4.0	1.0	4.0	1.0	4.0	1.0
	10 ⁶	8.4	2.3	7.9	2.0	6.5	1.9	6.5	1.9	5.3	1.9	5.0	1.7
	10 ⁵	9.8	0.5	9.8	0.5	9.5	0.6	9.3	0.5	7.8	1.7	7.3	1.3
	10 ⁴	10.0	0.0	9.8	0.5	8.8	1.3	8.8	1.3	7.8	1.0	7.5	1.3

Table S5: Survival rates of larvae infected with mucormycetes and incubated at 37°C. Average survival was calculated out of 60 infected larvae, stev indicates standard deviation.

samples	inoculum	average survival 24h	stev	average survival 48h	stev	average survival 72h	stev	average survival 96h	stev	average survival 120h	stev	average survival 144h	stev
IPS		10.0	0.0	9.8	0.4	9.8	0.4	9.7	0.5	9.7	0.5	9.3	0.5
untouched		10.0	0.0	9.9	0.4	9.7	0.5	9.6	0.5	9.6	0.5	9.4	0.5
<i>R. microsporus</i>	10 ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁶	8.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁵	9.8	0.4	2.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁴	9.8	0.5	5.0	1.4	2.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0
<i>R. arrhizus</i>	10 ⁷	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁶	8.2	2.6	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁵	8.8	1.8	3.7	2.9	2.0	3.1	1.8	2.9	1.8	2.9	1.8	2.9
	10 ⁴	10.0	0.0	9.8	0.5	7.3	2.2	2.0	1.6	0.8	1.0	0.5	1.0
<i>Rh. pusillus</i>	10 ⁷	9.5	0.8	7.7	2.3	5.0	2.0	3.2	2.0	2.8	2.0	2.5	2.1
	10 ⁶	10.0	0.0	9.8	0.5	6.8	1.7	5.0	2.2	4.8	2.1	3.3	1.5
	10 ⁵	9.0	1.2	8.5	1.7	7.5	0.6	6.0	1.8	5.8	1.5	5.5	1.3
	10 ⁴	9.8	0.5	9.8	0.5	9.3	1.0	9.3	1.0	8.5	0.6	8.0	0.8
<i>L. corymbifera</i>	10 ⁷	6.0	4.2	2.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	10 ⁶	10.0	0.0	6.0	2.6	1.5	2.4	0.5	1.0	0.5	1.0	0.5	1.0
	10 ⁵	10.0	0.0	7.8	2.6	2.5	2.4	1.5	1.3	1.3	1.0	1.3	1.0
	10 ⁴	10.0	0.0	10.0	0.0	8.3	1.7	5.0	2.2	4.8	2.2	4.3	2.2
<i>L. ramosa</i>	10 ⁷	8.3	1.7	8.3	1.7	6.0	2.4	3.3	1.9	3.3	1.9	3.3	1.9
	10 ⁶	10.0	0.0	8.0	0.0	8.0	0.0	6.5	2.1	6.0	1.4	5.0	2.8
	10 ⁵	10.0	0.0	8.5	2.1	7.5	0.7	3.5	0.7	3.5	0.7	3.5	0.7
	10 ⁴	10.0	0.0	9.0	2.0	9.0	2.0	6.8	1.9	6.3	1.7	6.0	1.4
<i>M. circinelloides</i>	10 ⁷	8.5	2.4	8.3	2.4	8.0	2.4	7.8	2.6	7.3	3.2	6.8	2.8
	10 ⁶	10.0	0.0	9.3	1.2	9.3	1.2	9.0	1.3	8.7	1.2	8.0	0.9
	10 ⁵	10.0	0.0	10.0	0.0	10.0	0.0	9.5	0.6	9.5	0.6	9.0	0.0
	10 ⁴	10.0	0.0	9.5	0.6	9.3	1.0	9.0	1.4	8.8	1.3	8.8	1.3