

SUPPLEMENTAL INFORMATION

EXPERIMENTAL METHODS

Mold specific quantitative PCR assessment

All air samples were subjected to the 36 mold-species assay¹⁵ and one *Geotrichum candidum* internal positive control assay. A primer/probe master mix was prepared for each assay by combining each of the following in a 1.5 mL centrifuge tube: 916.8 μ L PCR grade water, 40 μ L 10-nanomolar Forward Primer in 1X Tris-EDTA (TE) buffer, 40 μ L 10-nanomolar Reverse Primer in TE buffer, and 3.2 μ L 10-nanomolar probe in TE buffer. Samples and master mixes were loaded into an epMotion 5075 liquid handling device (Eppendorf, Hamburg, Germany) which dispensed the following into wells of a 384-well plate: 5 μ L Light Cycler 480 Probe Master Mix (Roche Applied Sciences, Penzberg, Germany), 1.4 μ L Primer/Probe Master Mix of the specific assay, and 1.1 μ L PCR grade water. The well plate was then loaded into a Roche LC480 Light Cycler (Roche Applied Sciences). Samples were initially heated to 95°C for 5 min before 45 cycles of 60°C for 30 sec followed by 95°C for 10 sec. Curves were manually quality controlled to insure the correct Crossing Point (CP) call generated by the light cycler software. Crossing Points were then compared to a series of calibration curves generated internally from a dilution series of spore suspensions of known concentration to generate absolute quantifications.

SUPPLEMENTAL DATA

Supplemental Table 1. Mold-specific quantitative PCR analysis of air samples.

Quantitative PCR Assay	Outdoor Air	Air Conditioner	Evaporative Cooler
	(n=3)	(n=11)	(n=10)
	Spores/m ³ air	Spores/m ³ air	Spores/m ³ air
<i>Acremonium strictum</i>	24 ± 0	0 ± 0	0 ± 0
<i>Alternaria alternata</i>	81 ± 16.5	0 ± 0	0 ± 0
Anigr*	33 ± 11.3	0 ± 0	24 ± 5.6
<i>Aspergillus flavus/oryzae</i>	4 ± 1.5	0 ± 0	49 ± 15.5
<i>Aspergillus fumigatus, Neosartorya fischeri</i>	10 ± 2.5	113 ± 25.4	155 ± 27.3
<i>Aspergillus ochraceus/ostianus</i>	0 ± 0	0 ± 0	0 ± 0
<i>Aspergillus penicillioides</i>	3 ± 0	11 ± 3.5	19 ± 6.0
<i>Aspergillus restrictus/caesillus/conicus</i>	0 ± 0	0 ± 0	0 ± 0
<i>Aspergillus sclerotiorum</i>	0 ± 0	0 ± 0	0 ± 0
<i>Aspergillus sydowii</i>	2 ± 1.2	0 ± 0	0 ± 0
<i>Aspergillus unguis</i>	0 ± 0	0 ± 0	0 ± 0
<i>Aspergillus ustus</i>	3 ± 0	0 ± 0	0 ± 0
<i>Aspergillus versicolor</i>	2 ± 0.6	0 ± 0	0 ± 0
<i>Aureobasidium pullulans</i>	101 ± 11.8	0 ± 0	335 ± 86.4
<i>Chaetomium globosum</i>	0 ± 0	0 ± 0	0 ± 0
<i>Cladosporium cladosporioides</i> svar. 1	128 ± 27.8	21 ± 3.4	62 ± 8.1
<i>Cladosporium cladosporioides</i> svar. 2	8 ± 2.1	7 ± 2.2	14 ± 3.0
<i>Cladosporium herbarum</i>	5119 ± 1081.9	3066 ± 969.6	12161 ± 1370.8
<i>Cladosporium sphaerospermum</i>	4 ± 0.6	0 ± 0	0 ± 0
Eamst*	36 ± 10.8	0 ± 0	258 ± 71.7
<i>Epicoccum nigrum</i>	3 ± 0	56 ± 3.0	49 ± 3.4
Muc1*	7 ± 1.5	0 ± 0	0 ± 0
<i>Paecilomyces variotii</i>	1 ± 0.6	0 ± 0	11 ± 3.5
PenGrp2*	0 ± 0	0 ± 0	0 ± 0
<i>Penicillium brevicompactum/stoloniferum</i>	3 ± 0	0 ± 0	24 ± 3.9
<i>Penicillium chrysogenum</i>	1 ± 0.6	0 ± 0	0 ± 0
<i>Penicillium corylophilum</i>	0 ± 0	0 ± 0	0 ± 0
<i>Penicillium purpurogenum</i>	1 ± 0.6	44 ± 7.5	10 ± 3.2
<i>Penicillium variabile</i>	2 ± 0.6	0 ± 0	0 ± 0
Pspin2*	19 ± 5.5	425 ± 134.4	0 ± 0
<i>Rhizopus stolonifer</i>	5 ± 1.2	0 ± 0	24 ± 7.6
<i>Scopulariopsis brevicaulis/fusca</i>	1 ± 0.6	0 ± 0	0 ± 0
<i>Scopulariopsis chartarum</i>	0 ± 0	0 ± 0	7 ± 2.2
<i>Stachybotrys chartarum</i>	2 ± 0.6	0 ± 0	0 ± 0
<i>Trichoderma viride/atroviride/koningii</i>	1 ± 0.6	0 ± 0	0 ± 0
<i>Wallemia sebi</i>	2 ± 0.6	0 ± 0	102 ± 32.3
TOTAL SPORES	5606 ± 1167.9	3743 ± 963.1	13304 ± 1429.3

These assays detect four or more species.

Anigr: *Aspergillus niger/awamori/foetidus/phoenicis*

Eamst: *Eurotium (Aspergillus) amstelodami/chevalieri/herbariorum/rubrum/repens*

Muc1: *Mucor amphibiorum/circinelloides/hiemalis/indicus/mucedo/racemosus/ramosissimus* and *Rhizopus azygosporus/homothalicus/microsporus/oligosporus/oryzae*

PenGrp2: *Penicillium crustosum/camemberti/commune/echinulatum/solitum*

Pspin2: *Penicillium glabrum/lividum/purpurescens/spinulosum/thomii*

^a One air sample was excluded as it was >99% *Aspergillus ochraceus/ostianus* (spore # = 461929) and this species was detected in no other air sample.