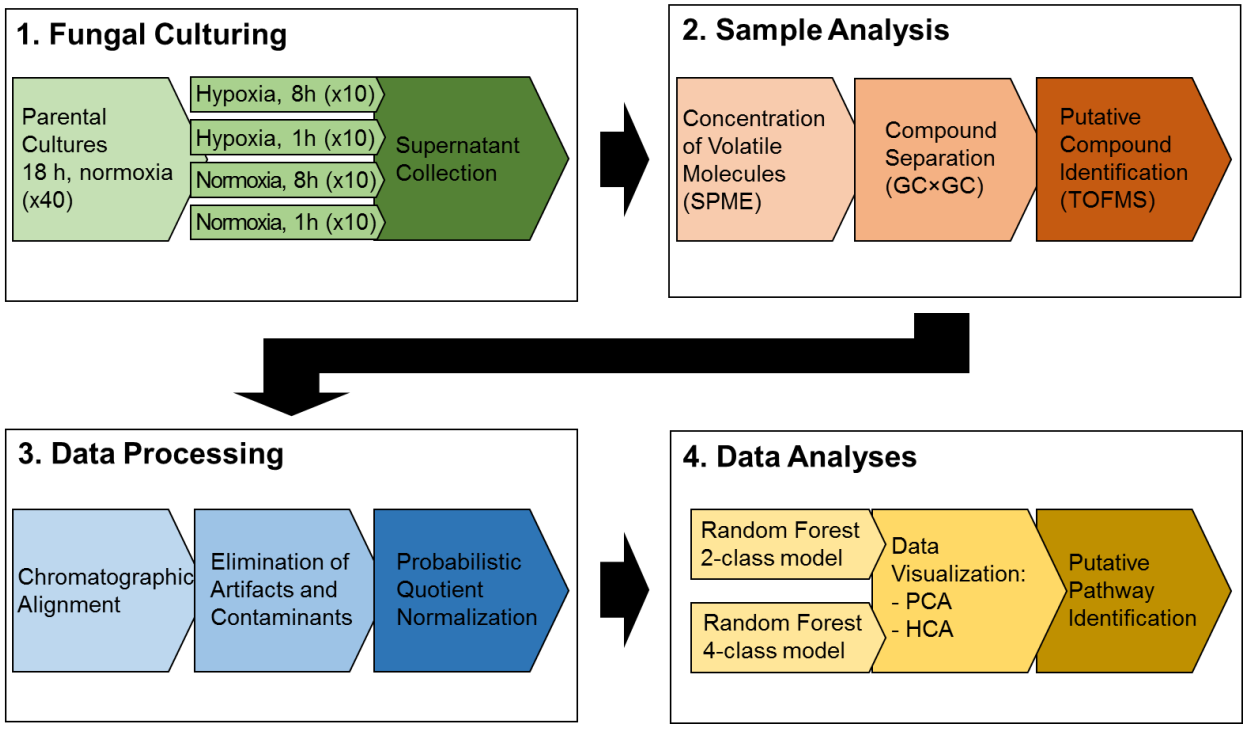
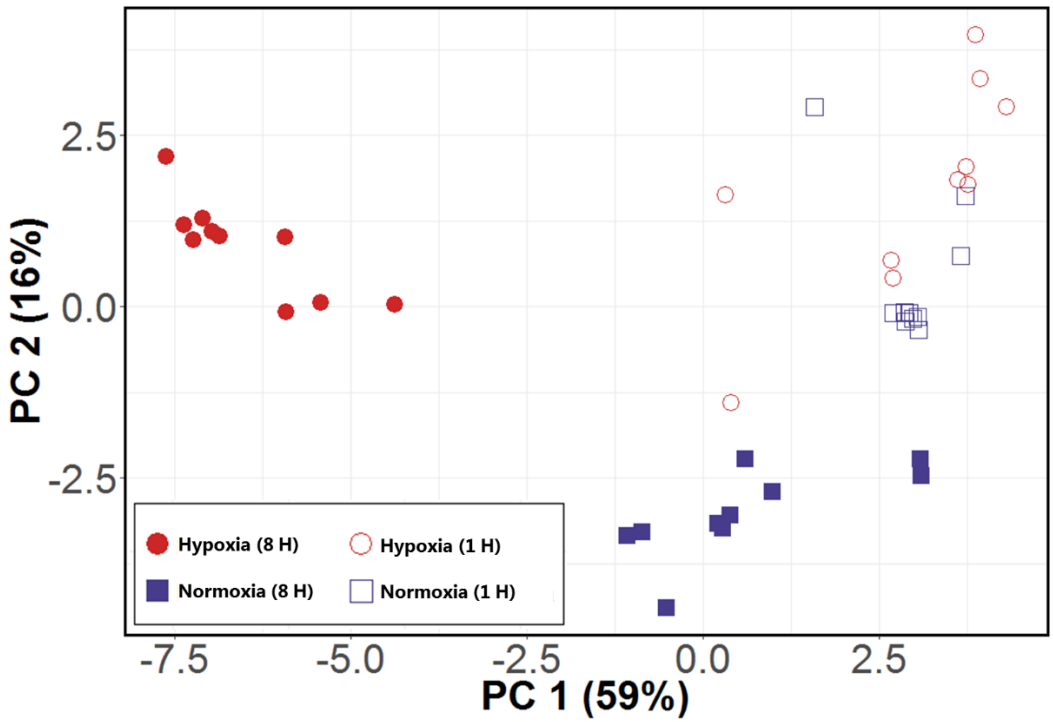
Supplementary Materials



Supplementary Figure S1. Flow chart depicting methodology employed in the present study.



Supplementary Figure S2. PC scores plot generated using 19 top discriminatory volatile molecules for the differentiation between late hypoxia (filled red circles) and all other experimental conditions, with the "all others" group labeled by experimental condition (**late hypoxia**: filled blue squares, **early hypoxia**: hollow red circles, **early normoxia**: hollow blue squares). PC 1: 59%, PC 2: 16%.

Supplementary Table S1. Standard solutions utilized in present study

Compound	Product #	RTs: 1D, 2D (s)	RI
2,3-butanedione	Sigma-Aldrich 11038	542, 1.070	627
2-methylpropanal	Sigma-Aldrich 240788	476, 0.805	-*
3-hydroxy-2-butanone	Sigma-Aldrich 40127	878, 1.720	778
3-methylbutanal	Sigma-Aldrich 146455	682, 0.860	694

RTs: 1D, 2D (s): 1^{st} and 2^{nd} dimension retention times (s), **RI:** retention index, ***:** Less than 600 and not extrapolated.

Supplementary Table S2. Relative abundance of six putatively identified late hypoxia-associated volatile molecules

Compound	RTs: 1D, 2D (s)	RI	Relative Abundance (TIC, 000s)				
			H8	H1	N8	N1	Media (H8)
2,3-butanedione	546, 1.071	629	14 372	1 131	2 935	1 991	945
2-methylpropanal	476, 0.808	-*	98	26	19	8	7
3-hydroxy-2-butanone	883, 1.709	780	724	1	29	ND	ND
3-methylbutanal	683, 0.846	694	81	23	47	32	3
Benzaldehyde	1448, 1.434	1030	2 378	397	651	1 456	19
Benzonitrile	1529, 1.545	1069	31	5	6	8	7

RTs: 1D, 2D (s): 1st and 2nd dimension retention times (s), **RI:** retention index, **TIC, 000s:** total ion chromatogram (in thousands), ***:** Less than 600 and not extrapolated, **ND:** Not detected.