

Table S3. Up-regulated Protein families and their general functions expressed in *Metarhizium anisopliae* and *Metarhizium rileyi* propagules during penetration on *Spodoptera frugiperda* cuticle.

	Total	PFAMs	Protein Name	Function
Shared by all structures	1	PF00067	Cytochrome P450 4F5	Oxidative stress
Shared by <i>M. anisopliae</i> blastospores and conidia	1	PF00172	Zn(2)-C6 fungal-type DNA-binding domain	Cell function
Shared by <i>M. rileyi</i> blastospores and conidia	3	PF00155	Aminotransferase, class I/classII	Oxidative stress
		PF13499	EF-hand domain	Virulence factor
		PF13641	Glycosyltransferase like family 2	Oxidative stress
Shared by <i>M. anisopliae</i> and <i>M. rileyi</i> blastospores	1	PF00011	Heat shock protein	Heat shock
Shared by <i>M. anisopliae</i> and <i>M. rileyi</i> conidia	19	PF00171	Aldehyde dehydrogenase domain	Virulence factor
		PF01198	Ribosomal protein L31e	Cell function
		PF02629	CoA-binding	Virulence factor
		PF00903	Glyoxalase/fosfomycin resistance/dioxygenase do	Virulence factor
		PF11327	Egh16-like virulence factor	Virulence factor
		PF01775	Ribosomal protein 50S-L18Ae/60S-L20/60S-L18A	Cell function
		PF01425	Amidase signature domain	Virulence factor
		PF02353	Mycolic acid cyclopropane synthetase	Virulence factor
		PF01042	Endoribonuclease L-PSP	Cell function
		PF00096	Zinc finger C2H2-type	Cell function
		PF01384	Phosphate transporter	Nutrient and substance transport
		PF05368	NmrA-like domain	Cell function
		PF13193	AMP-binding enzyme, C-terminal domain	Virulence factor
		PF00125	Histone H2A/H2B/H3	Virulence factor
		PF00153	Mitochondrial substrate/solute carrier	Cell function
		PF07732	Multicopper oxidase, N-termianl	Virulence factor
		PF03576	Peptidase S58, DmpA	Virulence factor
		PF02136	Nuclear transport factor 2	Nutrient and substance transport
		PF13561	Enoyl-(Acyl carrier protein) reductase	Cell function

Blastospores from *Metarhizium anisopliae* and *Metarhizium rileyi* are not always as virulent as conidia towards *Spodoptera frugiperda* caterpillars and use different infection mechanisms. Isabella Alice Gotti, Camila Costa Moreira, Italo Delalibera Junior, and Henrik H. De Fine Licht