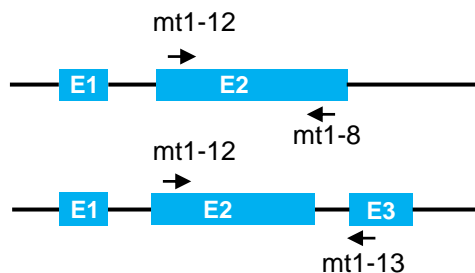
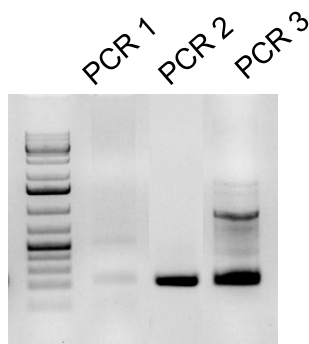


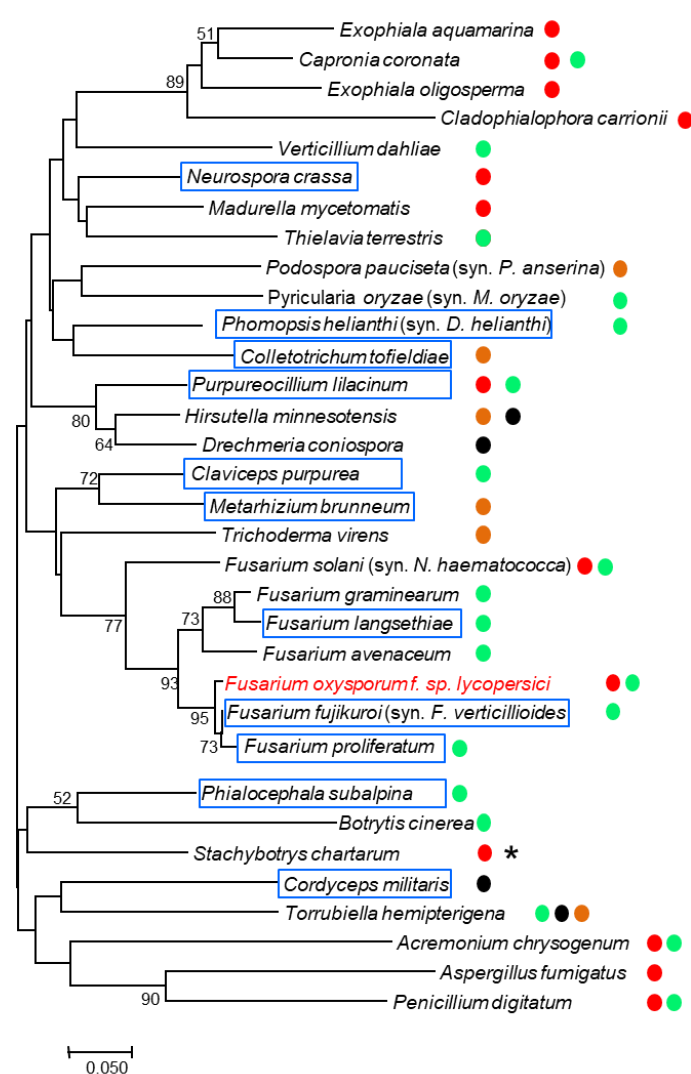
A



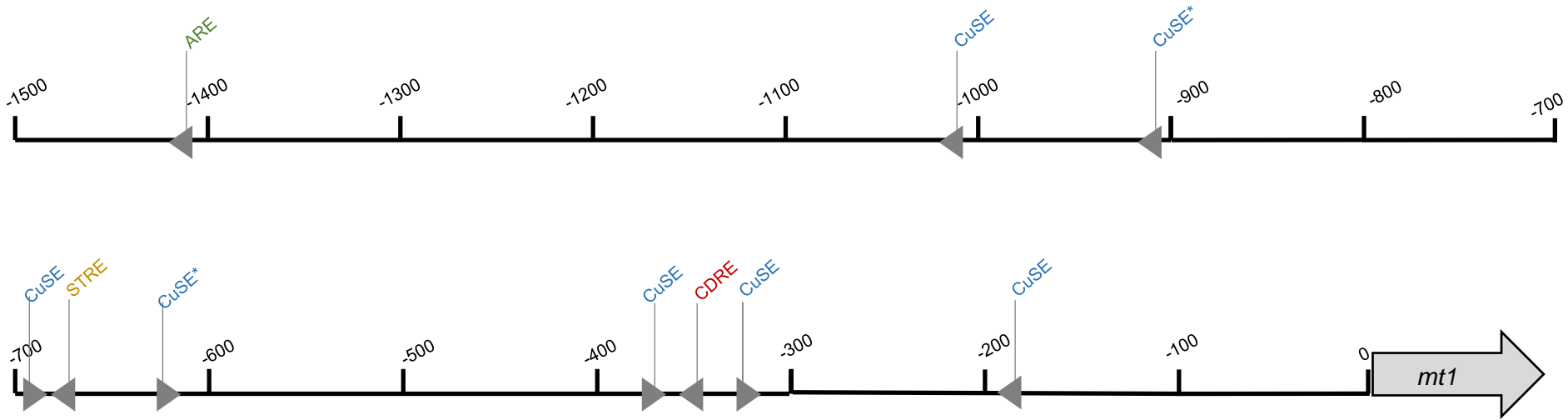
B



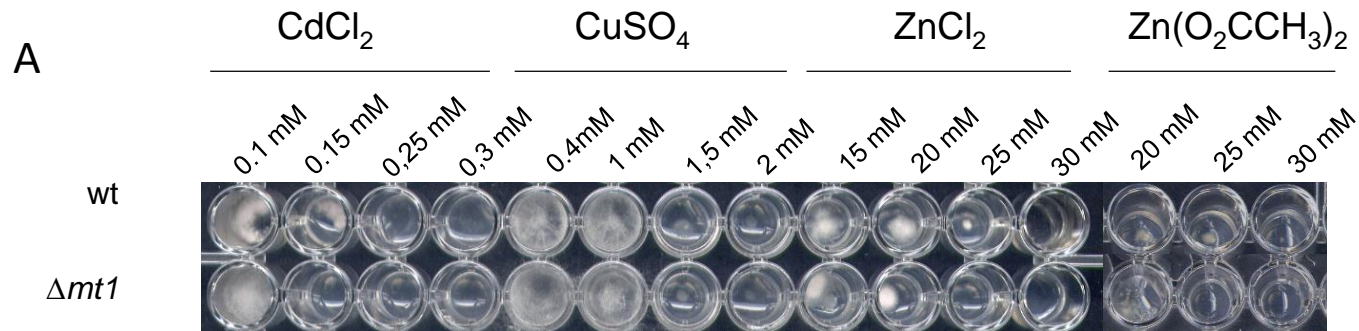
C



**Supplementary Figure 1.** **A)** Possible transcripts of *mt1* of *F. oxysporum* represented by exons (blue boxes) and noncoding sequences (black line). To check transcripts two primer pairs were designed. **B)** PCR1 using wt cDNA as template and primers mt1-12 (present in exon 2) and mt1-8 (present in the exon 2 of the shortest version and in the intron 2 of the largest) was negative. PCR2 using wt cDNA as template and primers mt1-12 (present in exon 2) and mt1-13 (present in exon 3 of the largest) was positive giving 267 bp amplicon. PCR 3 using wt gDNA and primers mt1-12 and mt1-8 was positive giving 208 bp amplicon. **C)** Elevated conservation of *mt1* in pathogenic fungi observed in the phylogenetic tree. Bootstrap values were obtained from 1000 replicates and are indicated at the nodes; only it has been conserved those values > 50. The pathogenic fungi were classified in: parasite (●), plant pathogen (●), opportunistic human pathogen (●), animal pathogen (●). Highlighted in blue are represented the copper resistance protein or related to Cu-binding metallothioneins, And duplicated genes are indicated (\*).



**Supplementary Figure 2.** Distribution of stress and metal responsive elements within 1,5 kb upstream region of *F. oxysporum* *mt1*. ARE (antioxidant response element), CuSE (copper sensing elements), CuSE\* (CuSE-like elements), STRE (stress responsive element), CDRE (calcineurin dependent response element).



**B**

Strains	MIC of heavy metals (mM)			
	CdCl <sub>2</sub>	CuSO <sub>4</sub>	Zn(O <sub>2</sub> CCH <sub>3</sub> ) <sub>2</sub>	ZnCl <sub>2</sub>
wt	0.3	1.5	30	30
$\Delta mt1$	0.2	1.5	25	25

**Supplementary Figure 3. A)** Effect of different concentration of heavy metals on wt and mutant strains growth in 96-wells plates . 30  $\mu$ l of a  $10^6$  spores mL<sup>-1</sup> suspension were inoculated in the wells containing synthetic media (SM) supplemented with different concentrations of CdCl<sub>2</sub>, CuSO<sub>4</sub>, ZnCl<sub>2</sub> or Zn(O<sub>2</sub>CCH<sub>3</sub>)<sub>2</sub>. **B)** Minimal inhibitory concentrations (MIC) of heavy metals for wt and mutant strains of *F. oxysporum*.