ASSOCIATED CONTENT

S Supporting Information

The Supporting Information is available free of charge on the ACS Publications website at DOI: 10.1021/acs.jproteo-me.9b00299.

Figure S1: Similar growth and viability profiles of *C.* glabrata wild-type (wt) and Cgyps1-11 Δ strains at the time of secretome collection; **Figure S2:** CgMSB2 gene is modestly upregulated in the Cgyps1-11 Δ mutant;

Figure S3: Cgyps1-11 Δ and Cgyps7 Δ mutants show enhanced sensitivity to the cell wall stressor congo red; **Figure S4:** comparative analysis of global secretomes of wild-type, Cgyps1-11 Δ , Cgyps7 Δ , and Cgyps2 Δ C Δ strains (Figures S1–S4) (PDF)

Table S1: A list of mass spectrometry parameters used for global secretome analysis. Table S2: A list of mass spectrometry parameters used for quantitative secretome analysis. Table S3: A list of 119 proteins identified in the wild-type secretome in global secretome analysis. Table S4: A list of 548 proteins identified in the Cgyps1-11 Δ secretome in global secretome analysis. Table S5: Functional classification of putative GPI-anchored proteins identified in the secretomes of wild-type and Cgyps1-11 Δ strains. Table S6: DeepLoc 1.0 web serverbased subcellular localization analysis of proteins identified in the *wild-type* secretome. Table S7: DeepLoc 1.0 web server-based subcellular localization analysis of proteins identified in the Cgyps1-11 Δ secretome. Table **S8:** Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories for the *wild-type* secretome, as determined by the FungiFun tool. Table S9: Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories for the Cgyps1-11 Δ secretome, as determined by the FungiFun tool. Table S10: Comparative analysis of identified and predicted secretome of C. glabrata. Table S11: A list of 29 proteins identified in the wild-type secretome, that were not predicted to be secretory. Table S12: Comparative analysis of identified secretory proteins in C. glabrata, C. albicans, and S. cerevisiae. Table S13: Analysis of secretory proteins that are unique to C. glabrata. Table S14: A list of 85 proteins identified in the wild-type secretome by label-free quantitative secretome profiling. Table S15: A list of 193 proteins identified in the Cgyps1-11 Δ secretome by label-free quantitative secretome profiling. Table S16: Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories, as determined by the FungiFun tool, in the set of 114 proteins, that were unique to the Cgyps1-11 Δ secretome in quantitative secretome analysis. Table S17: Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories, as determined by the FungiFun tool, in the set of 61 proteins, identified in wt secretome by both global and quantitative analysis. Table S18: Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories, as determined by the FungiFun tool, in the set of 155 proteins, identified in Cgyps1-11 Δ secretome by both global and quantitative analysis. Table S19: A list of 53 common proteins in wild-type and Cgyps1-11 Δ secretomes, that were identified by both global and quantitative secretome profiling. Table S20: A list of 79 proteins displaying differential abundance in the Cgyps1-11 Δ secretome based on the peptide number ratio. Table S21: Relative abundance analysis, using spectral counting-based approach, of proteins identified in the global secretome. Table S22: Relative abundance analysis, using spectral countingbased approach, of proteins identified in the quantitative secretome. Table S23: A list of 59 proteins identified in the Cgyps7 Δ secretome in global secretome analysis. Table S24: A list of 52 proteins identified in the $Cgyps2\Delta C\Delta$ secretome in global secretome analysis. Table S25: DeepLoc 1.0 web server-based subcellular localization analysis of proteins identified in the Cgyps7 Δ secretome. Table S26: DeepLoc 1.0 web server-based subcellular localization analysis of proteins identified in the $Cgyps2\Delta C\Delta$ secretome. Table S27: Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories for the Cgyps7 Δ secretome, as determined by the FungiFun tool. Table S28: Enriched GO terms for biological process (BP), cellular component (CC), and molecular function (MF) categories for the $Cgyps2\Delta C\Delta$ secretome, as determined by the FungiFun tool. (XLSX)