

Description of Additional Supplementary Files

Supplementary Data 1. Gsp and Gcp protein sequences from the eukaryotic species specifically targeted in the study and their features.

Supplementary Data 2. Mitochondrial and peroxisomal proteome of *N. gruberi*.

Supplementary Data 3. Gsp and Gcp sequences from non-target organisms.

Supplementary Data 4. Sequence data sources.

Supplementary Data 5. Species and their predicted proteomes used for the initial step of the search for Gsp-co-occurring genes in eukaryotes.

Supplementary Data 6. PCR primers used in the study.