

## Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Peptidases in *Candidatus Uab amorphum* genome.

File Name: Supplementary Data 2

Description: Genes related to amino acid biosynthesis.

File Name: Supplementary Movie 1

Description: Locomotion of *Candidatus Uab amorphum*, time-lapse (20×).

File Name: Supplementary Movie 2

Description: Phagocytosis-like cell engulfment of *Candidatus Uab amorphum*, time-lapse (20×).

File Name: Supplementary Movie 3

Description: *Candidatus Uab amorphum* and *Debaryomyces hansenii* showing *Ca. Uab amorphum* does not engulf *D. hansenii*, time-lapse (40×).

File Name: Supplementary Movie 4

Description: *Candidatus Uab amorphum* and AcGFP1-labelled *Escherichia coli* showing *Ca. Uab amorphum* engulf *E. coli*, time-lapse (600×).