SUPPLEMENTARY FIGURES FOR: ISMEJ-16-00922OAR

Syntrophic linkage between predatory *Carpediemonas* and specific prokaryotic populations

Running title: Mutual metabolism and protistan predation

Emmo Hamann[a,b,1], Halina E. Tegetmeyer[b,c], Dietmar Riedel[d], Sten Littmann[b], Soeren Ahmerkamp[b], Jianwei Chen[a,b], Phillip E. Hach[b] and Marc Strous[a,b,1]

[a)] Department of Geoscience, University of Calgary, T2N1N4, Canada

[b)] Max Planck Institute for Marine Microbiology, Celsiusstraße 1, D-28359 Bremen, Germany

[c)] Institute for Genome Research and Systems Biology, Center for Biotechnology, Bielefeld University, Universitätsstraße 27, D-33615 Bielefeld, Germany

[d)] Max Planck Institute for Biophysical Chemistry, Am Faßberg 11, 37077 Göttingen, Germany

[1)] To whom correspondence should be addressed. mstrous@ucalgary.ca phone: +1 403 220 6604 or emmohamann@gmail.com +1 403 210 7853

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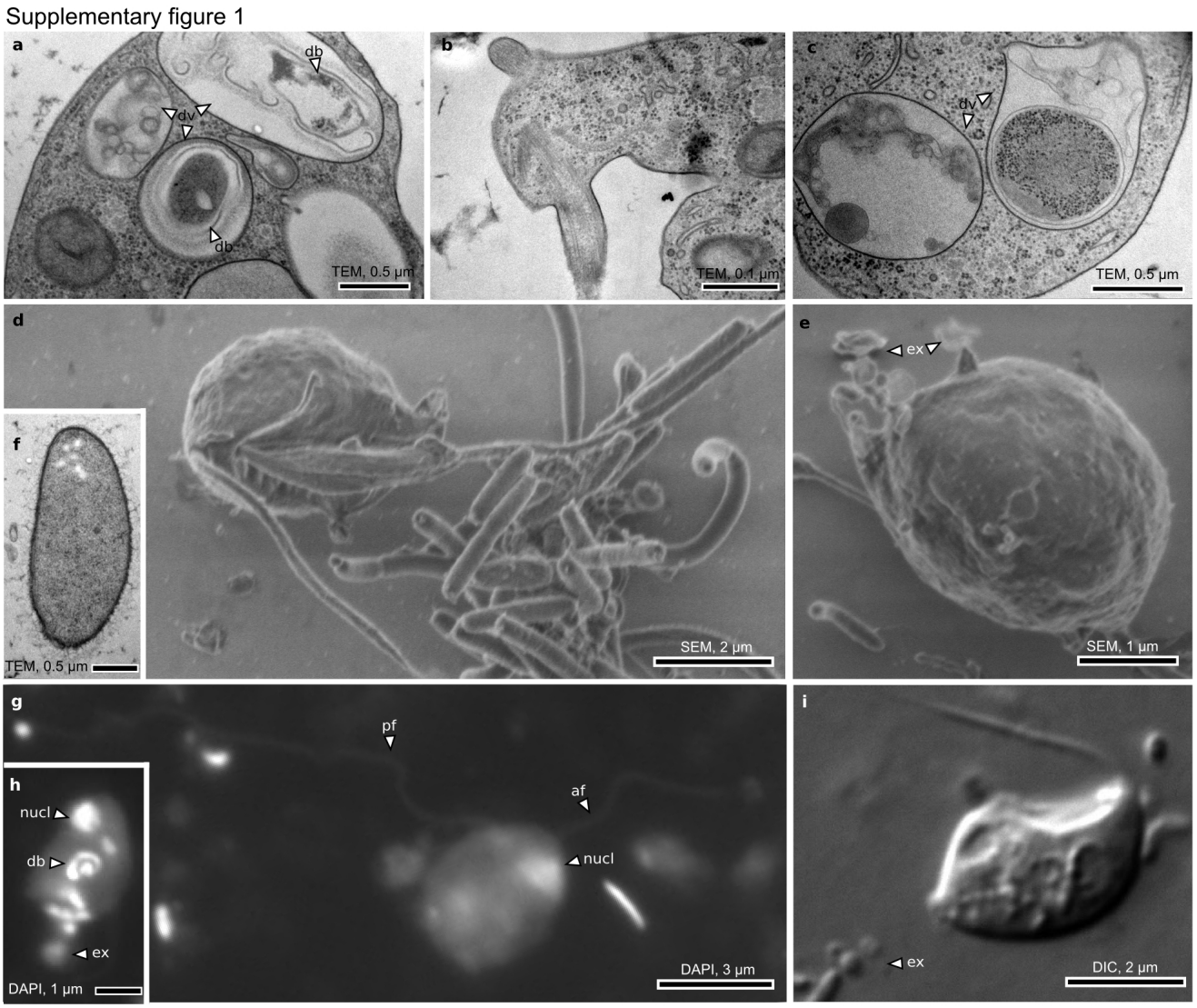
Subject category: Microbe-Microbe and Microbe-Host Interactions

This file includes supplementary figures 1-6 and the corresponding figure legends

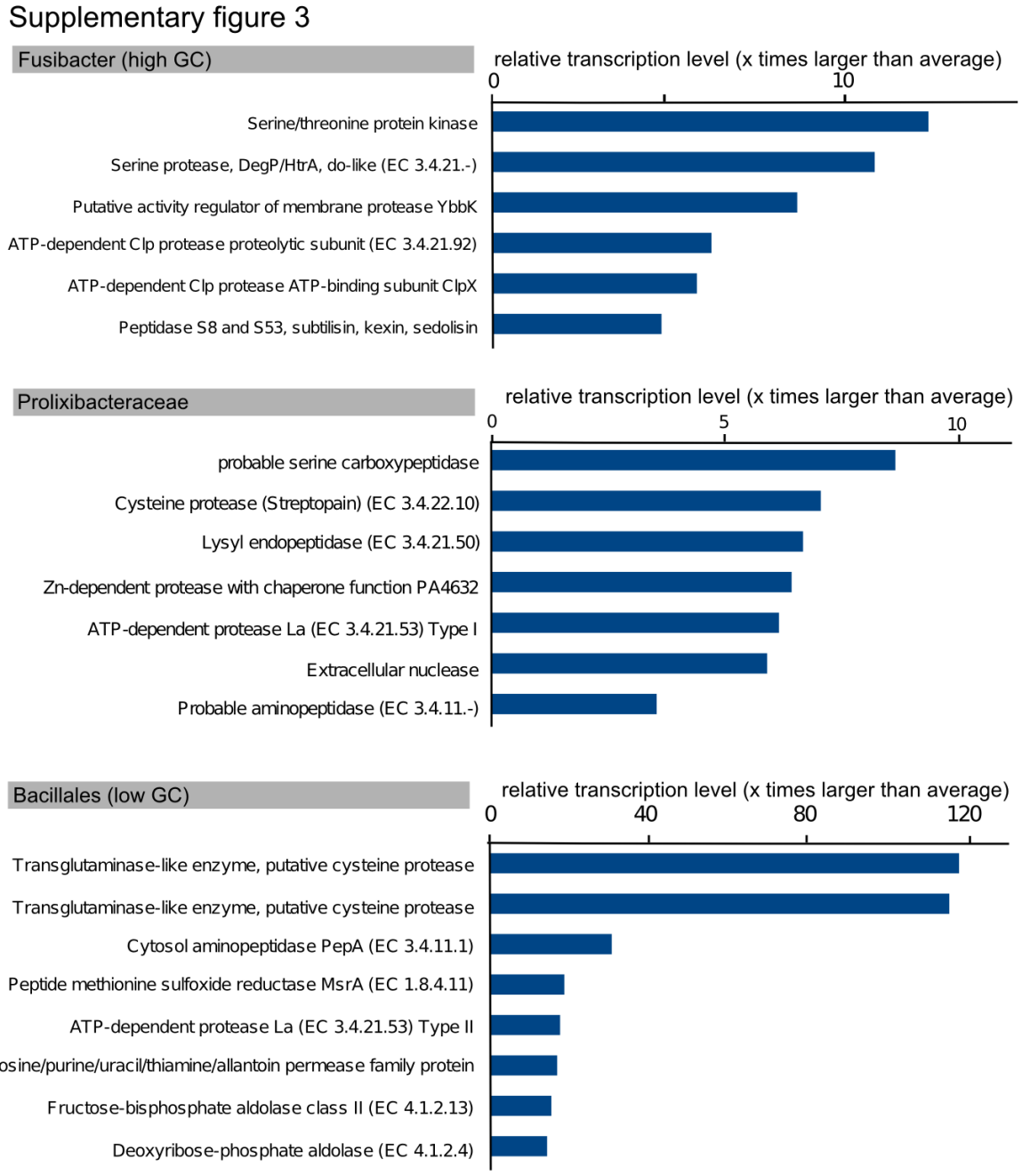
Supplementary figure 1: Images of *C. frisia* and associated prokaryotes.

a to c, Transmission electron micrographs of *C. frisia.* The arrows indicate digestive vacuoles (dv), and incompletely digested organic material (db). **d to e,** Scanning electron micrographs of *C. frisia* and excreted extracellular material (ex). **f**, Transmission electron micrograph of a bacterium before ingestion. **g to h,** Fluorescence micrographs showing signals of the the DNA specific stain DAPI. Anterior flagellum (af), posterior flagellum (pf), nucleus (nucl). **i,** Differential interference contrast (DIC) microscopic image of a living specimen.

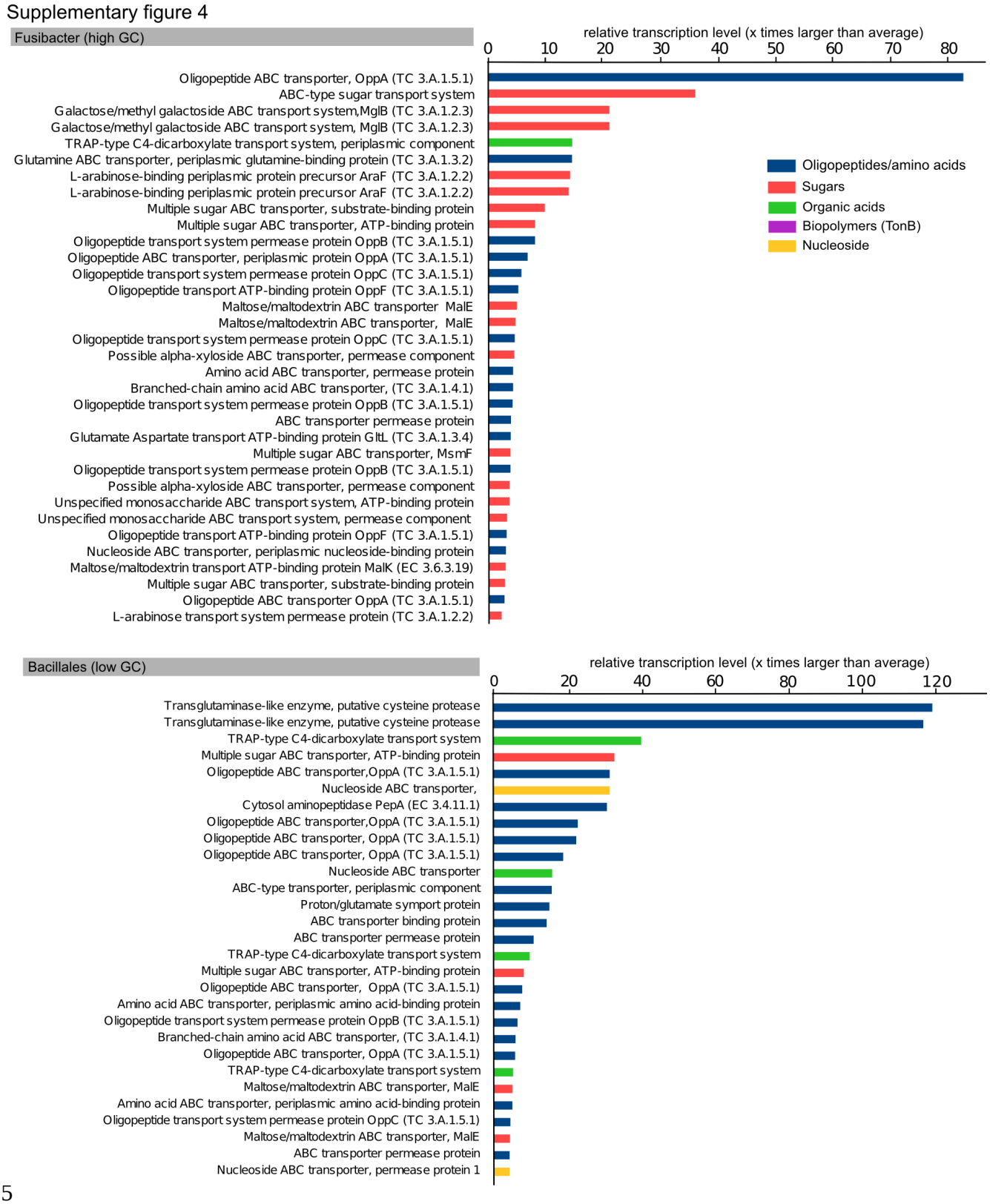


Supplementary figure 2: Domain architecture of hydrogenases affiliated to the different microbial populations. The fermenting populations encoded hydrogen producing Fe-hydrogenases. The sulfate reducing Deltaproteobacteria encoded hydrogen oxidizing Ni/Fe-hydrogenases.

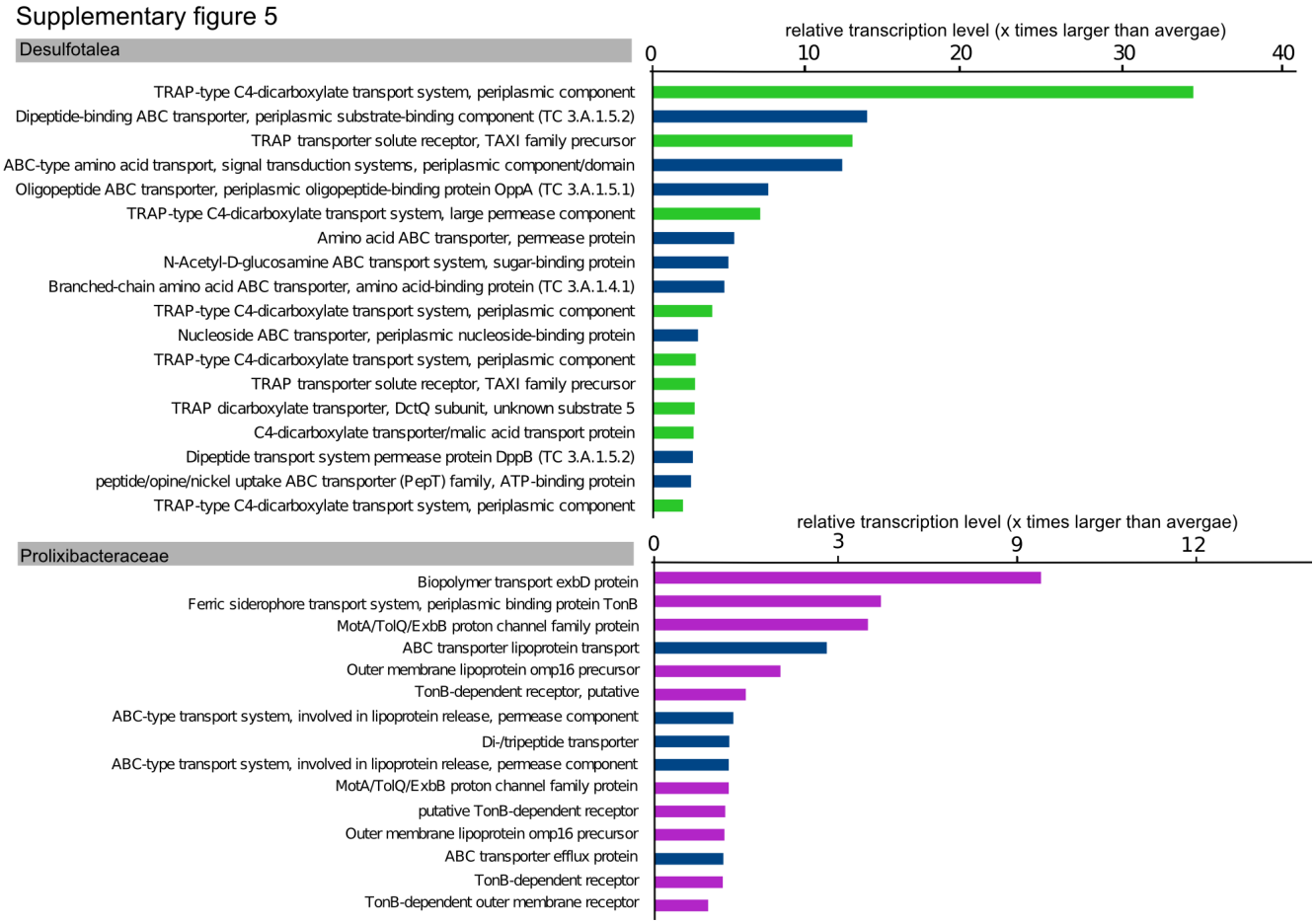
Supplementary figure 3: Transcriptional activity of genes involved in hydrolysis of organic carbon encoded by Firmicutes and Bacteroidetes.



Supplementary figure 4: Transcriptional activity of genes involved in the transport of organic carbon encoded by Firmicutes.



Supplementary figure 5: Transcriptional activity of genes involved in the transport of organic carbon encoded by Deltaproteobacteria and Bacteroidetes.



Supplementary figure 6: Growth of *C. frisia* under different experimental conditions. **a,** Growth of *C. frisia* after inhibition of sulfate reduction (squares) compared to a control culture (circles). Sulfate reduction was inhibited by the addition of molybdate. **b,** Production of fatty acids in a culture in which sulfate reduction was inhibited (refers to figure panel a, squares). **c,** Growth of *C. frisia* with limited amounts of sulfate (200 µM sulfate, squares) compared to growth in a control culture (28 mM sulfate, circles). **d,** Production of fatty acids in a control culture (refers to figure panel a, circles).