



Figure S1. *Lithocolla globosa* SnP. A-B) Agglutinated cells from enrichment with sediment still present. Surface view (B) showing attached mineral particles. C-O) Cells from culture, fed on *Navicula* (C-G), *Isochrysis* (H,L-O) and *Phaeodactylum* (I-K). C-D) General view of same cell. Note nucleus (in C) and ingested diatoms (in D), orange globules (D inset, bracket) and layer (D inset, arrowhead). E) General view of cell. Note nucleus, orange globules and greenish digestive vacuoles. F-H) Examples of intact filopodia. Note that filopodia degrade rapidly under exposure to bright light. I-J) Individuals with 2 (I) and 3 (J) nuclei, relatively commonly observed in culture. K) 'Re-agglutinated' cell one day following addition of chalk dust (as fine calcium carbonate mineral inclusions) to culture. Note mineral particles inside and on the surface of the cell, resembling the agglutinated cells from enrichment in (A-B). L-O) Pseudoseries of different individuals showing mineral inclusions found in cells (arrowheads), 20min (L), 23min (M), 47min (N), 60min (O) following addition of chalk dust to mineral-particle-deprived culture, indicating that mineral particles are ingested by the cell. Differential interference contrast, scalebars are 20µm (A-K, all images at same scale), 10µm (L-O).