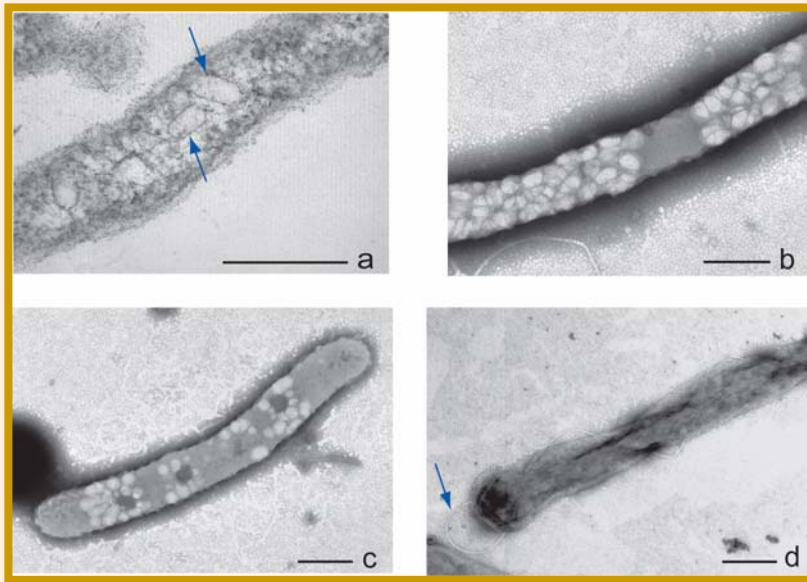


# Novel Organisms

## New anoxygenic phototrophic bacterium isolated from the water column of Lake Fryxell

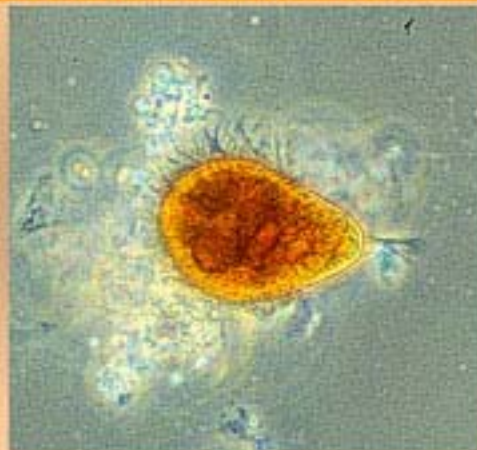


**a–d** Gas vesicles and flagella of cells of strain Fryx1. **a** TEM of a longitudinal section. Note conically shaped gas vesicles (*arrows*). **b** Negatively stained TEM showing gas vacuoles (clusters of gas vesicles). **c** Negatively stained TEM showing circular arrangement of gas vesicles at possible sites of synthesis. **d** Negatively stained TEM showing the single polar flagellum (*arrow*) of a cell of strain Fryx1. Bars, 0.5  $\mu\text{m}$

(Courtesy of Madigan Lab: Jung, D.O., L.A. Achenbach, E.A. Karr, S. Takaichi and M.T. Madigan. (2004). A gas vesiculate planktonic strain of the purple non-sulfur bacterium *Rhodospirillum rubrum* isolated from Lake Fryxell, Dry Valleys, Antarctica. *Archives of Microbiology*. 182(2-3):236-243.)

## *Chlamydomonas priscuui* sp. nov.

Recently characterized *C. priscuui* is the dominant phytoplankton species in the waters above the chemocline of all lakes in the Taylor Valley (Fryxell, Hoare, East and West Lobe Lake Bonney). This novel organism is capable of efficient photosynthesis under extremely low light and temperature.

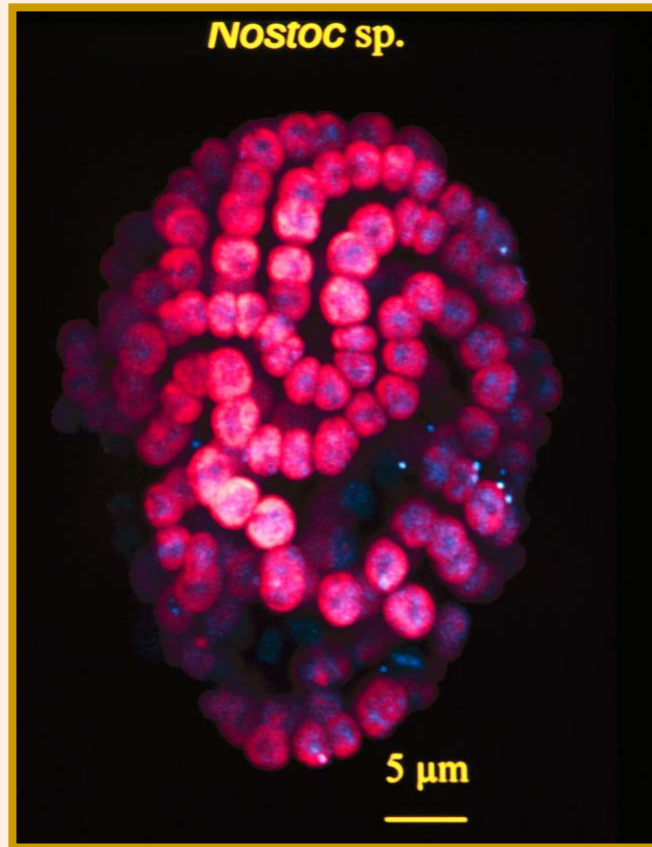


(Courtesy of Priscu Lab)

# Novel Organisms

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**Nostoc (Cyanobacteria) from the permanent ice cover of Lake Bonney**



(Courtesy of Priscu Lab)