Supplementary Material

Correlative Electron and Fluorescence Microscopy of Live Magnetotactic Bacteria: Towards *in vivo* Imaging

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HRTEM of magnetosomes in cells of *M. Magneticum* were acquired in the fluid cell using a similar protocol to that described in the Methods section; instead of the described media, a 2:1 mixture of HEPES:DI water was used to suspend the cells. While the high intensity of the electron beam at these magnifications (410 kx for (a) and 620 kx for (b)) likely kills the cells quickly and evaporates much of the surrounding liquid medium, the magnetosome, with a fully hydrated and intact membrane vesicle, can be distinguished in the fluid cell (Supplementary Fig. S1).

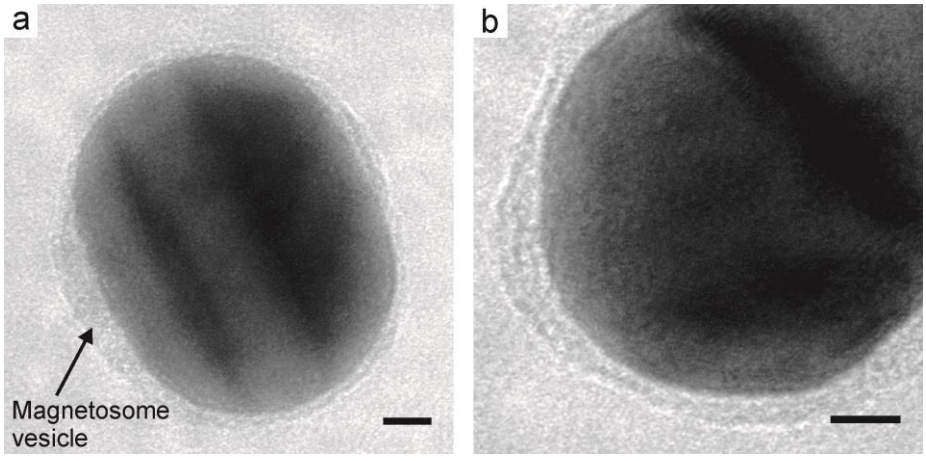

Figure S1. Fluid cell HRTEM images of magnetosomes in cells of *M. Magneticum*. (a) Cropped image showing the inorganic magnetite core and the organic surrounding vesicle. (b) Higher magnitification image of a different magnetosome. Scale bars are 5 nm.