

Supplementary Figure S2. ATP-dependent energization of *Y. lipolytica* membranes. The quenching of ACMA fluorescence upon the addition of 1 mM ATP (indicated by an arrow) in total membrane vesicles isolated from cells grown in the absence (Ctrl, A) or presence of 1 mM (B) and 2 mM FeSO₄ (C) at pH 3.0, 4.5 and 6.0 for 20 h is shown. In all cases, 20 mM NH₄Cl was added to dissipate the H⁺ gradient. (D) Effect of iron on membrane energization at different growth pH. Representative fluorescence traces are shown.