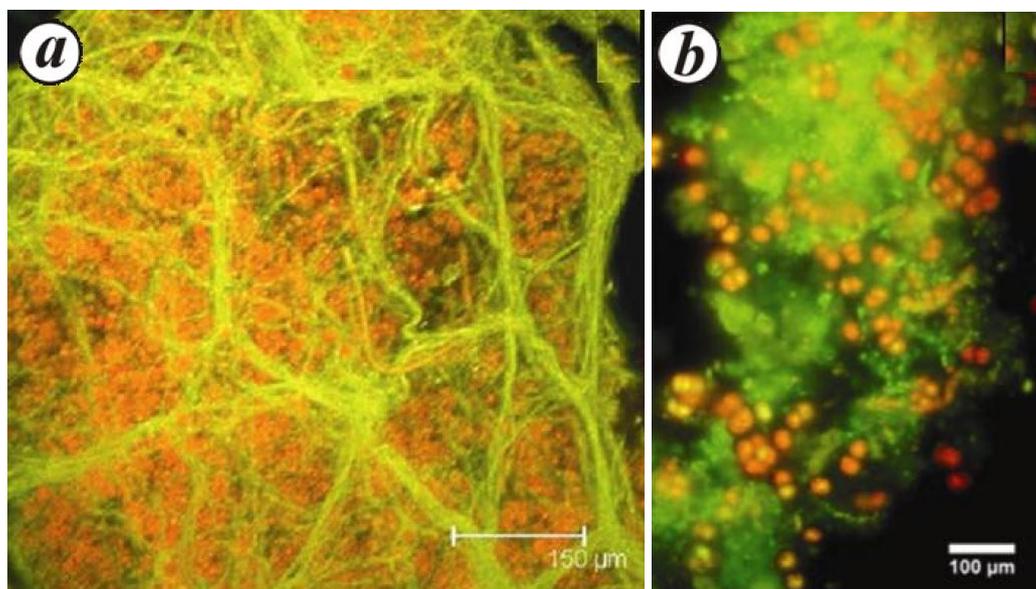
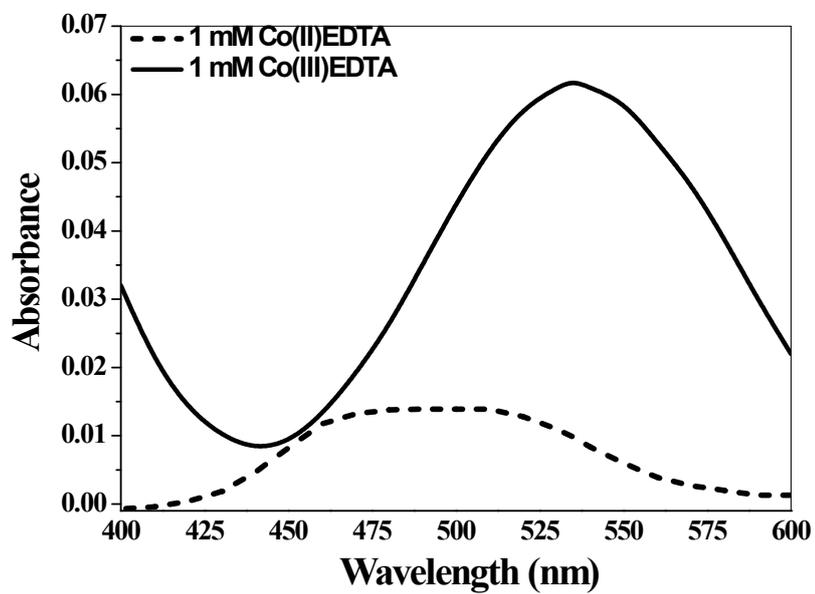


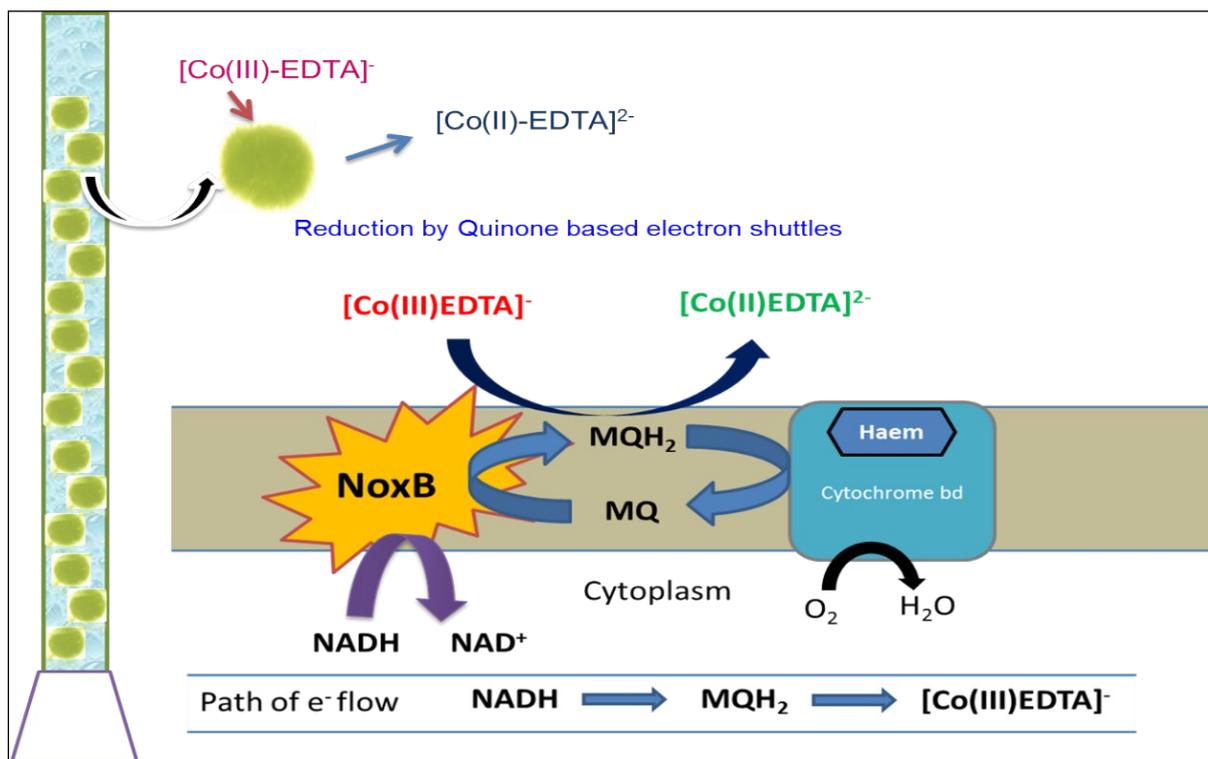
Supplementary information



Supplementary Fig 1(a). Autofluorescence image of photogranules showing filamentous cyanobacteria and microalgae as seen under confocal microscope. **(b)** Epifluorescence photomicrographs of photogranules stained with acridine orange showing heterotrophic bacteria (green) and cyanobacteria (orange-red). (Reproduced from Kumar and Venugopalan, 2015).¹⁹



Supplementary Fig 2. Absorption spectrum of $[\text{Co}(\text{II})\text{EDTA}]^{2-}$ and $[\text{Co}(\text{III})\text{EDTA}]^{-}$ in the visible range (reproduced from Paraneiswaran et al., 2015).²¹



Supplementary Fig 3. Schematic illustration to explain the hypothesis of the role of quinone electron shuttle in $[\text{Co(III)-EDTA}]^-$ reduction by phototrophic granules [adapted from Abicht et al. (2013)⁴²].