Releasing Iron from Ferritin Protein Nanocage by Reductive Method: The Role of Electron Transfer Mediator

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The current work investigates the role of low concentration (5-50 µM) of phenazine based electron transfer (ET) mediators such as FMN, PYO - a redox active virulence factor secreted by *Pseudomonas aeruginosa* and PMS towards iron mobilization from recombinant frog M ferritin. The presence of dissolved O_2, resulting in initial lag phase and low iron release in FMN, had little impact in case of PMS and PYO, reflecting their better ET relay ability that facilitates iron mobilization. The current mechanism of *in vitro* iron mobilization from ferritin by using redox mediators involves different ET steps, which may help to understand the iron release pathway *in vivo* and to check microbial growth. [Biochim Biophys Acta. 2018 Feb 19; 1862(5):1190-1198; https://doi.org/10.1016/j.bbagen.2018.02.011]