## Supplementary Figures and Legends 1-7 (PDF).

The supplementary figures show a phylogenetic tree analysis and protein surface conservation between *H. pylori* and ferritins from other species; biochemical characterization of HA-nanoparticles; antigenic characterization of HA-nanoparticles; the effect of preexisting antiferritin immunity on subsequent immunization using HA-nanoparticles; iron incorporation by *H. pylori* ferritin and HA-nanoparticles; development of a trivalent vaccine comprising three independent HA-nanoparticles (H1, H3 and influenza B); and biochemical characterization of ΔRBS HA proteins.