Abstract:
Mesalamine serves as gold standard in treating ulcerative colitis. However, its precise mechanism(s) of action are still unclear. Here we show that mesalamine treatment rapidly decreases polyphosphate levels in diverse bacteria, including members of the human gut microbiome. This decrease sensitizes bacteria towards oxidative stress, reduces colonization, and attenuates persister cell and biofilm formation suggesting that mesalamine aids in diminishing the capacity of bacteria to persist within chronically inflamed environments.