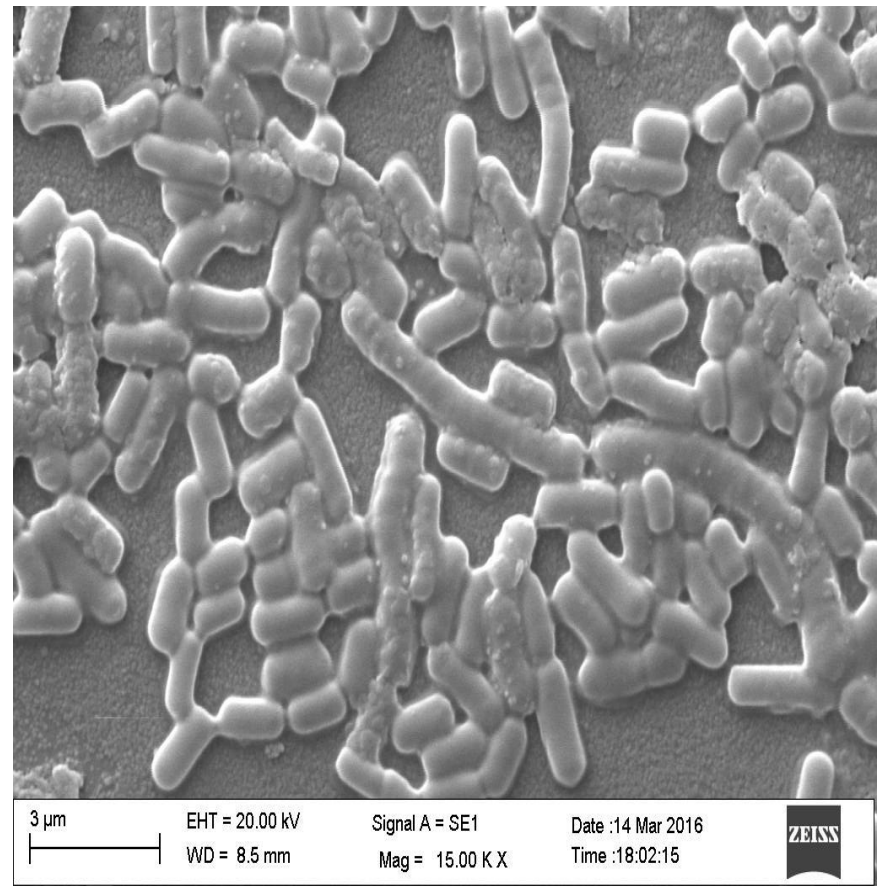
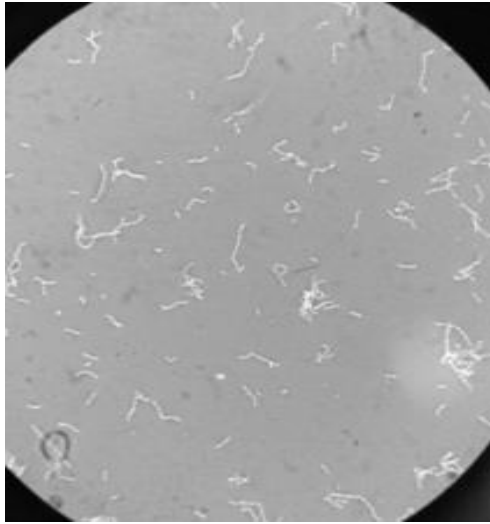


**A**

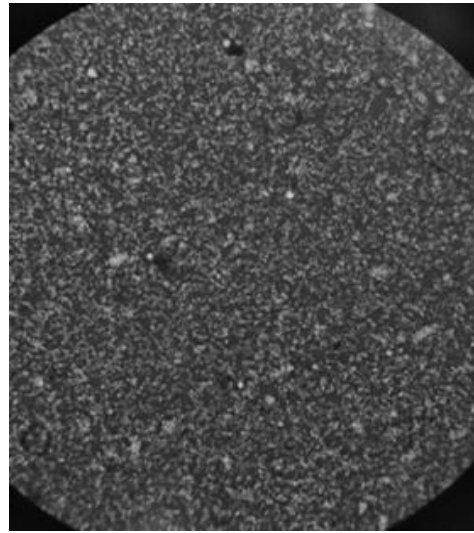


**B**

**Supplementary Fig. 1. Morphological changes in *L. fermentum* SR4 during  $ZnSO_4$  treatment for Zinc enrichment. A) Control Group of *Lactobacillus fermentum* SR4 by SEM B) Treatment Group of *Lactobacillus fermentum* SR4 with  $ZnSO_4$  at 10,000x magnification**



**A**



**B**

**Supplementary Fig. 2.** Ultra-sonication of *L. fermentum* SR4 biomass **A)** Morphology of intact bacterial cell before cell lysis; **B)** Image displaying the complete lysis of cell sonication.