

SUPPLEMENTARY FIGURES

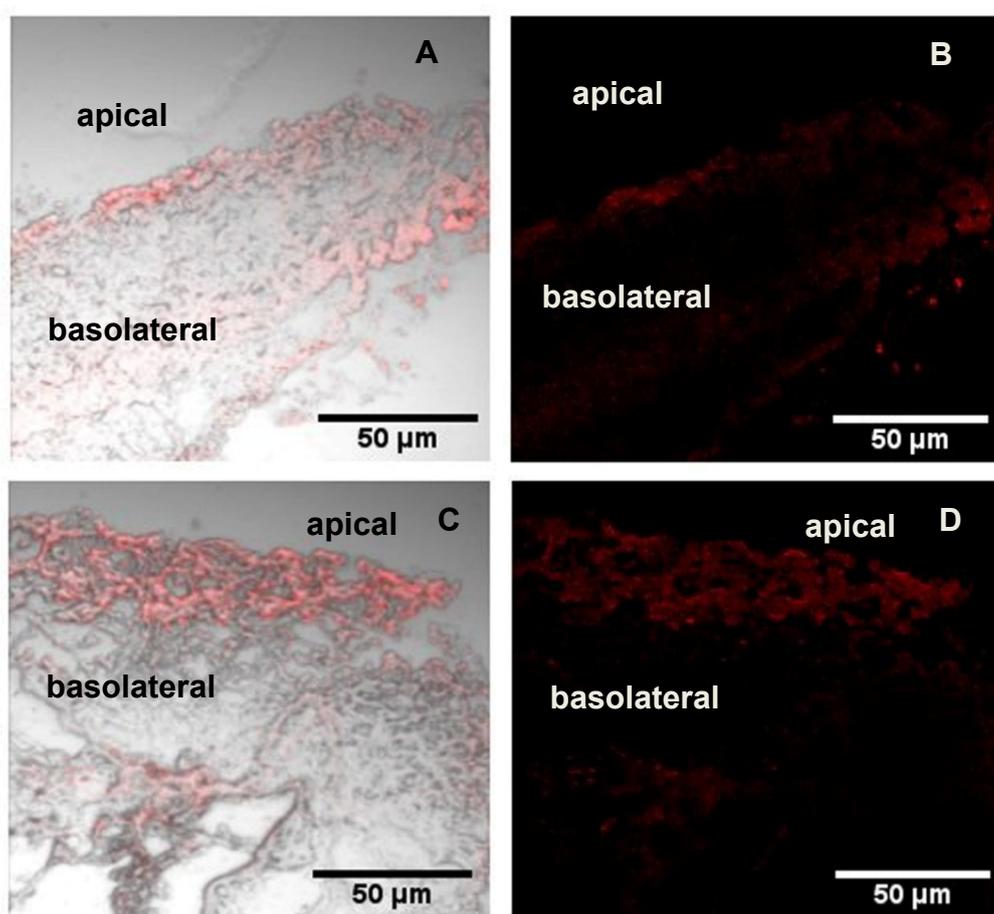


Figure S-1- CLSM view of cryocross-sections isolated from the animals treated with RSNP (A and B) or RLNP (C and D). Particles tend to penetrate and accumulate deeply in the mucosal tissue irrespective their polymer type.

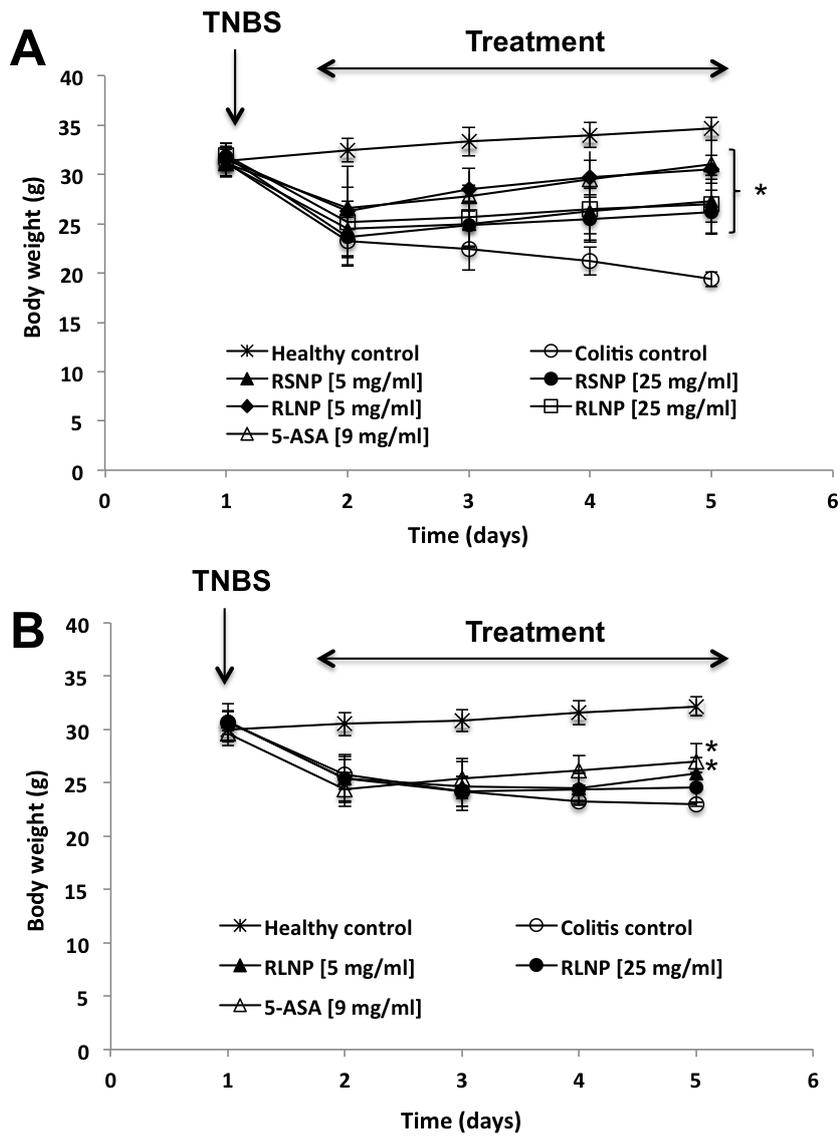


Figure S-2- Animal body weight within the course of the experiments. Colitis induction with A) 62.5 mg/Kg and B) 90 mg/Kg. * $P < 0.01$ when comparing the endpoint weight of the treated animals with untreated colitis control. A) All nanoparticle and 5-ASA-treated animals weighed significantly more than the colitis control group. B) Animals having received treatments with RLNP (5 mg/ml) and 5-ASA weighed significantly more than the colitis control group.

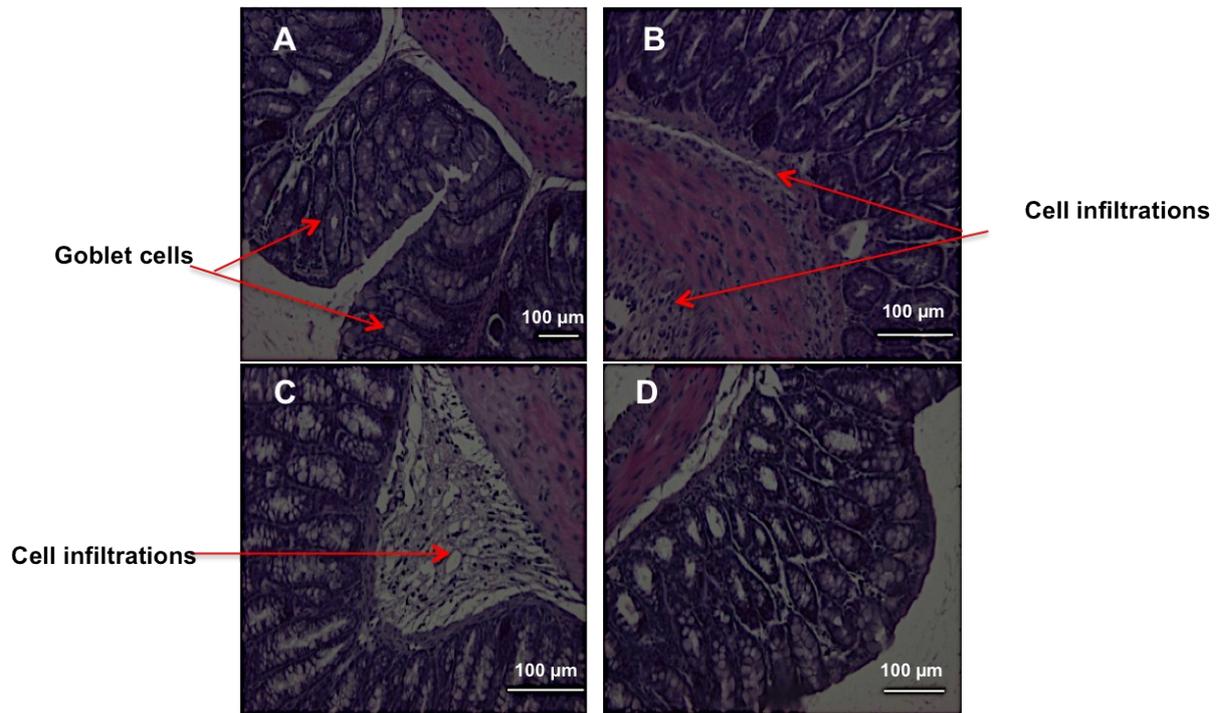


Figure S-3- Microscopic view (40x magnification) of the haematoxylin-eosin stained colon cross-sections harvested from the animals in A) healthy control, B) colitis control, C) RSNP and D) RLNP groups.

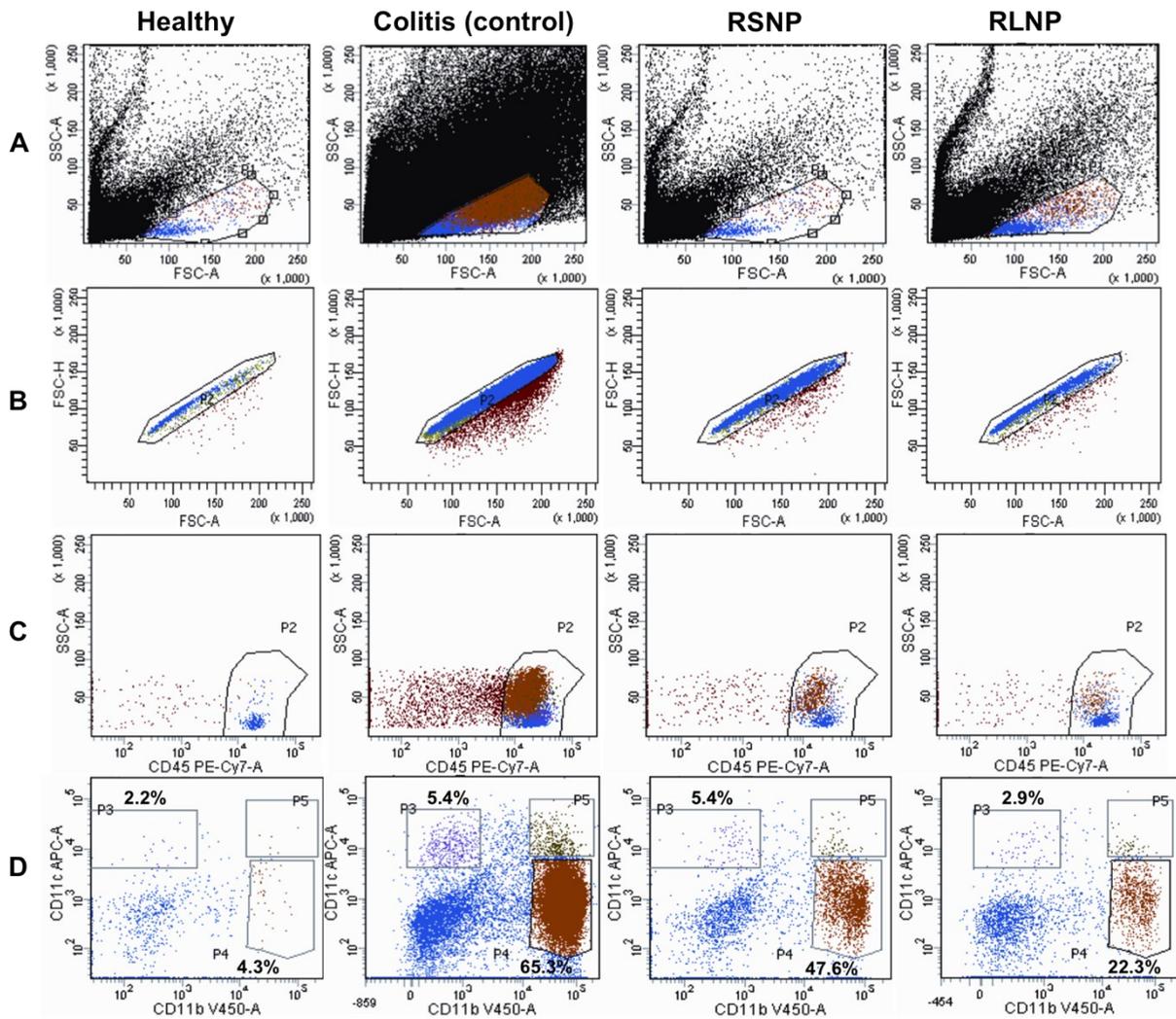


Figure S-4- Details of the flow cytometric analysis of colonic resident immune cells in the animals of the healthy control, colitis control, RSNP and RLNP groups. A) Forward scatter (FSC) versus side scatter (SSC) display of colonic cells. B) Doublet cells were eliminated from analyses. C) CD45 versus SSC display of the cells gated by selected zone in panel A. D) DCs (P3) and macrophages/ monocytes and macrophages (P4) were identified based on the expression of CD11b and CD11c, while P5 represents other immune cells.

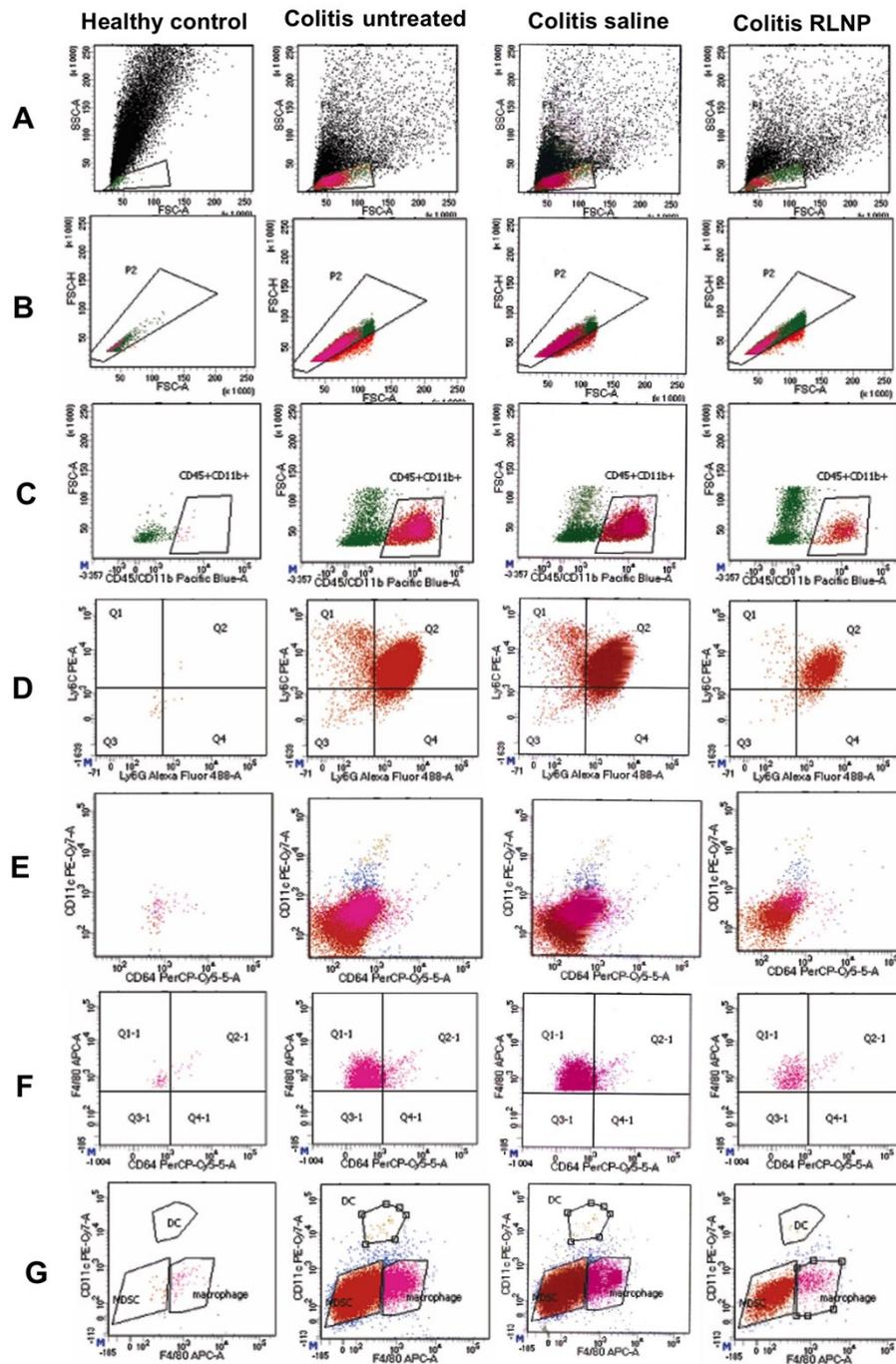


Figure S-5- Details of the flow cytometric analysis of colonic resident macrophages, MDSCs and DCs in the animals of the healthy control, colitis control (24 h after colitis induction), saline-treated and RLNP (5mg/ml)-treated animals. A) Forward scatter (FSC) versus side scatter (SSC) display of colonic cells. B) Doublet cells were excluded from the analysis. C) CD45/CD11b versus SSC display of the cells gated. D) LyC6⁺ Ly6G⁺ cells were gated (MDSCs). E) CD11b⁺ F4/80⁺ cells were gated (macrophages). F) CD11c⁺ CD64⁻ cells were gated (DCs).

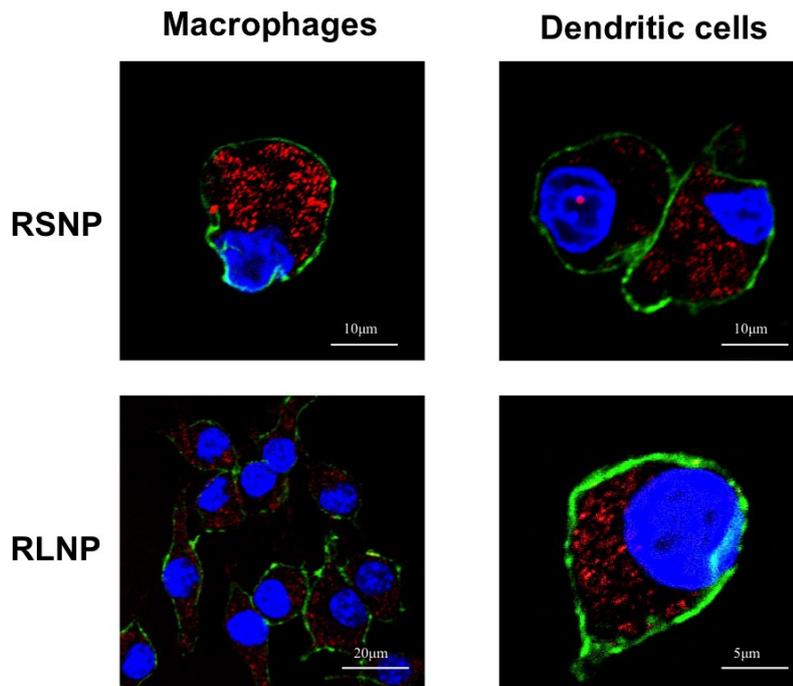


Figure S-6- Confocal microscopic imaging of Nile Red loaded RLNP and RSNP uptake by J774.A1 macrophages and JAWSII DCs following 4 h incubation. The particles are represented by the red color, the cell membrane by green and the nuclei by blue.

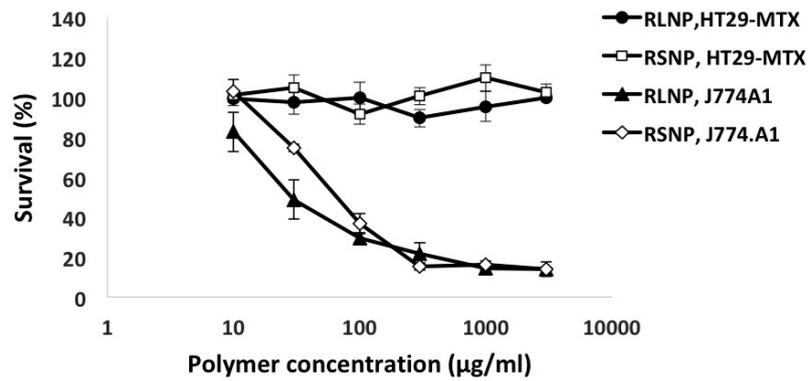


Figure S-7- Comparison of the survival of mucin secreting goblet cells (HT29-MTX cells) vs. M₀ macrophages (J774.A1) following overnight incubation with different concentrations of RLNP and RSNP. Cells were seeded with a density of 10⁵ cells per well in 96 well plates. In case of the HT29-MTX cells, experiments were performed once the mucin layer was fully formed. Survival was determined using the MTT assay.