

Supplementary Figures

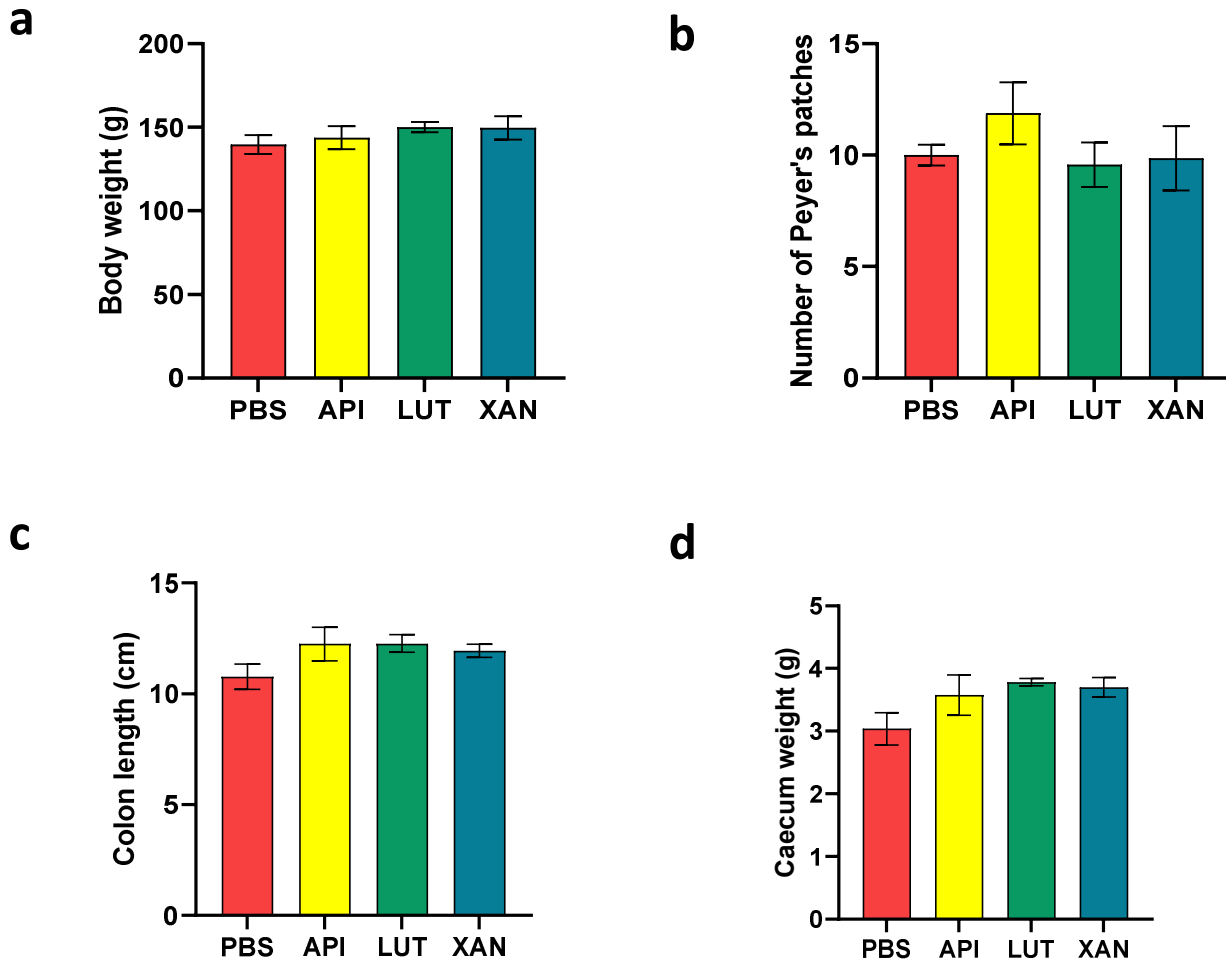


Figure S1. Measure of physical and inflammation parameters in UC-induced animals from the four studied cohorts: **(a)** mean body weight; **(b)** hyperplastic Peyer's patches; **(c)** colon length and **(d)** caecum weight between. Comparisons performed between PBS control cohort and each flavonoid treatment cohort. No statistically significant differences were observed in these comparisons. PBS (red); apigenin (API, yellow); luteolin (LUT, green) and xanthohumol (XAN, blue).

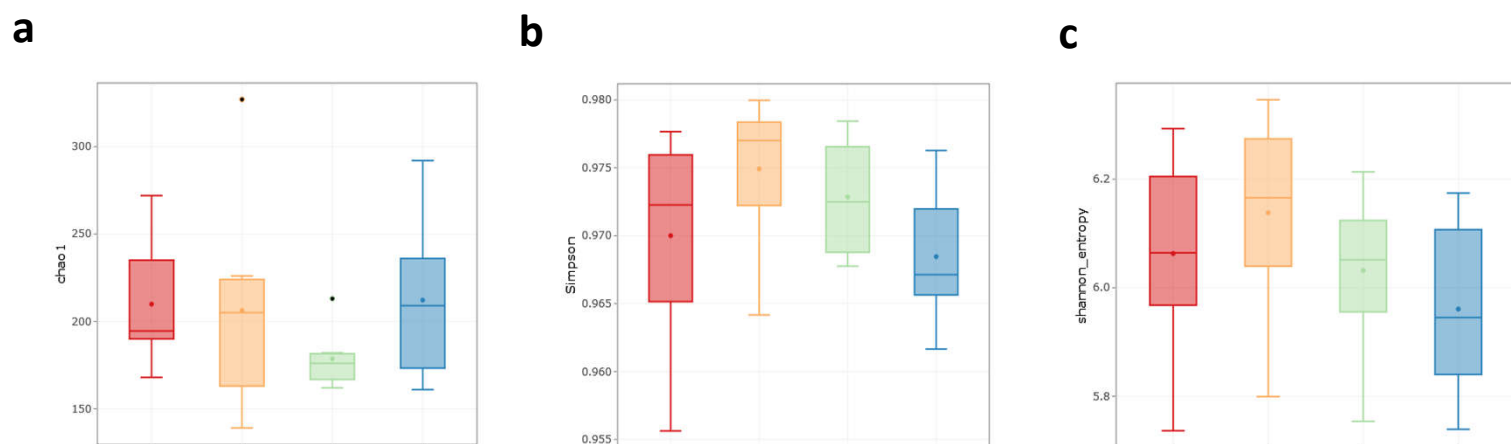


Figure S2. Boxplots of alpha diversity metrics **(a)** Chao1, **(b)** Simpson and **(c)** Shannon. The colored dot in each boxplot indicates the mean. Black dots indicate outliers. No statistically significant differences were found for any of these metrics among the UC-induced animals from the control PBS cohort and the flavonoid treatment cohorts, this indicating no changes in terms of microbial alpha diversity. PBS (red); apigenin (yellow); luteolin (green); xanthohumol (blue).

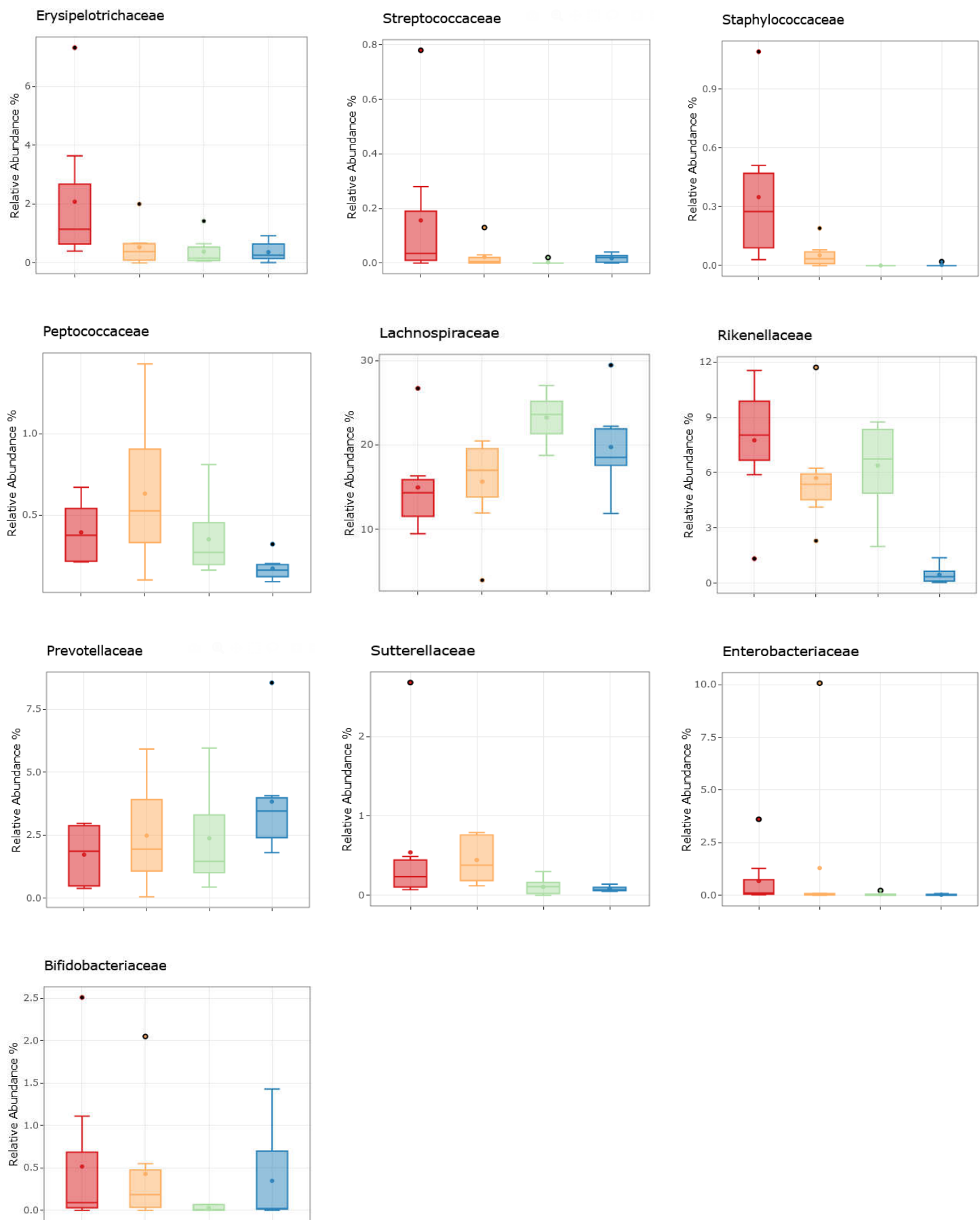


Figure S3. Boxplots of the relative abundance (%) of families with major significant differences regarding the comparison between UC-induced animals in the four studied cohorts. The colored dot in each boxplot indicates the mean. Black dots indicate outliers. PBS (red); apigenin (yellow); luteolin (green) and xanthohumol (blue).

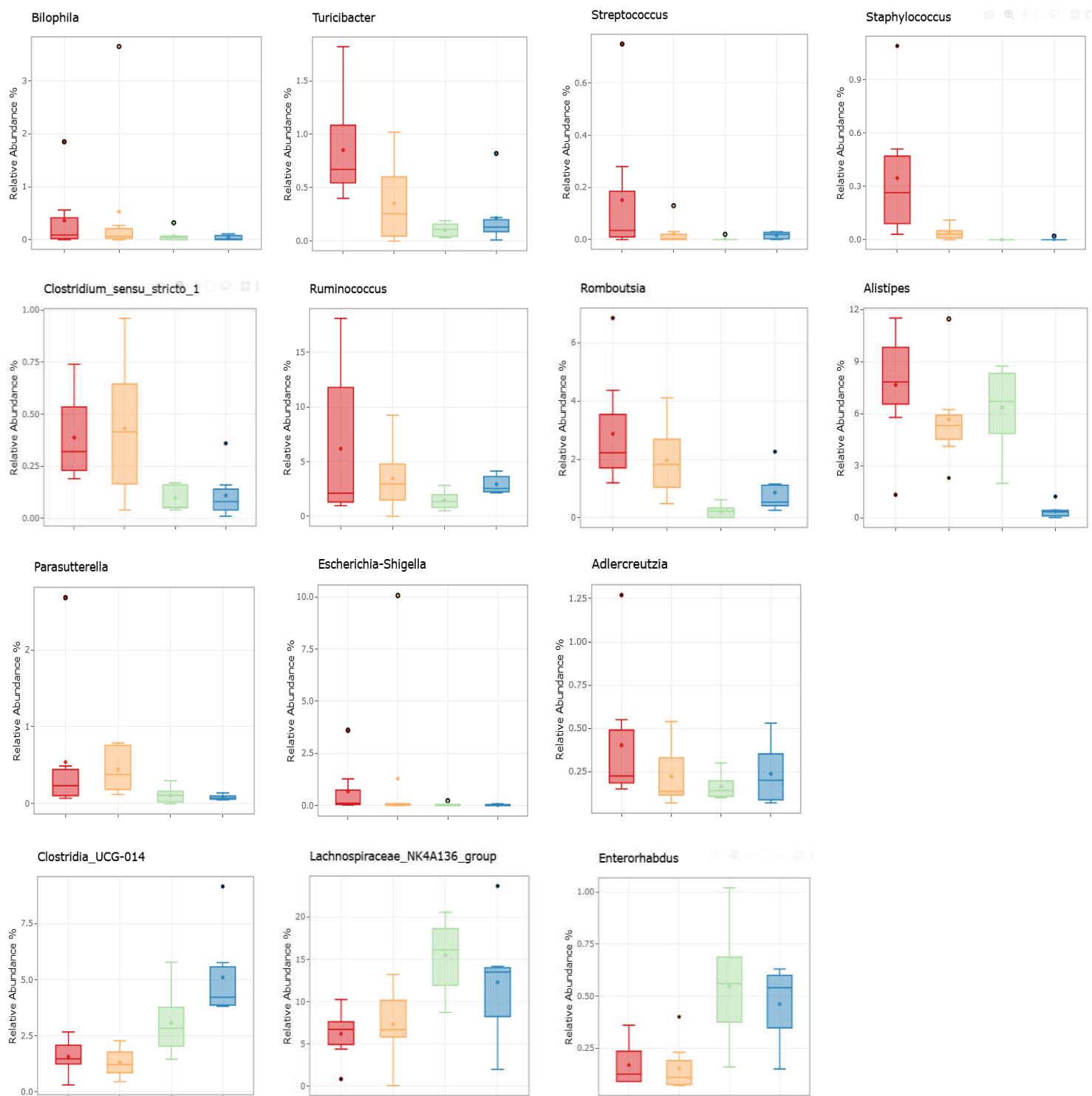


Figure S4. Boxplots of the relative abundance (%) of genera with major significant differences regarding the comparison between UC-induced animals in the four studied cohorts. The colored dot in each boxplot indicates the mean. Black dots indicate outliers. PBS (red); apigenin (yellow); luteolin (green) and xanthohumol (blue).

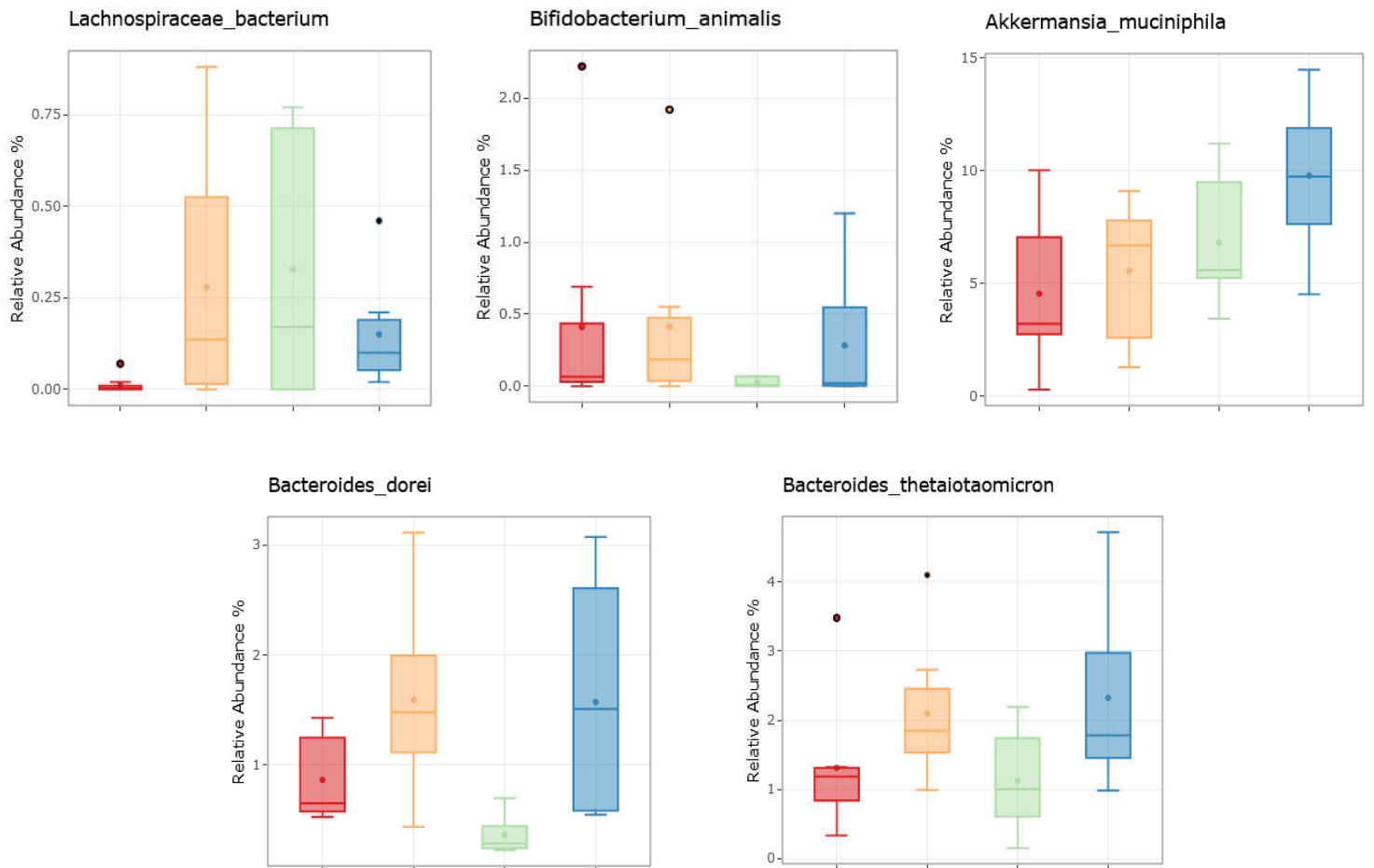


Figure S5. Boxplots of the relative abundance (%) of species with major significant differences regarding the comparison between UC-induced animals in the four studied cohorts. The colored dot in each boxplot indicates the mean. Black dots indicate outliers. PBS (red); apigenin (yellow); luteolin (green) and xanthohumol (blue).

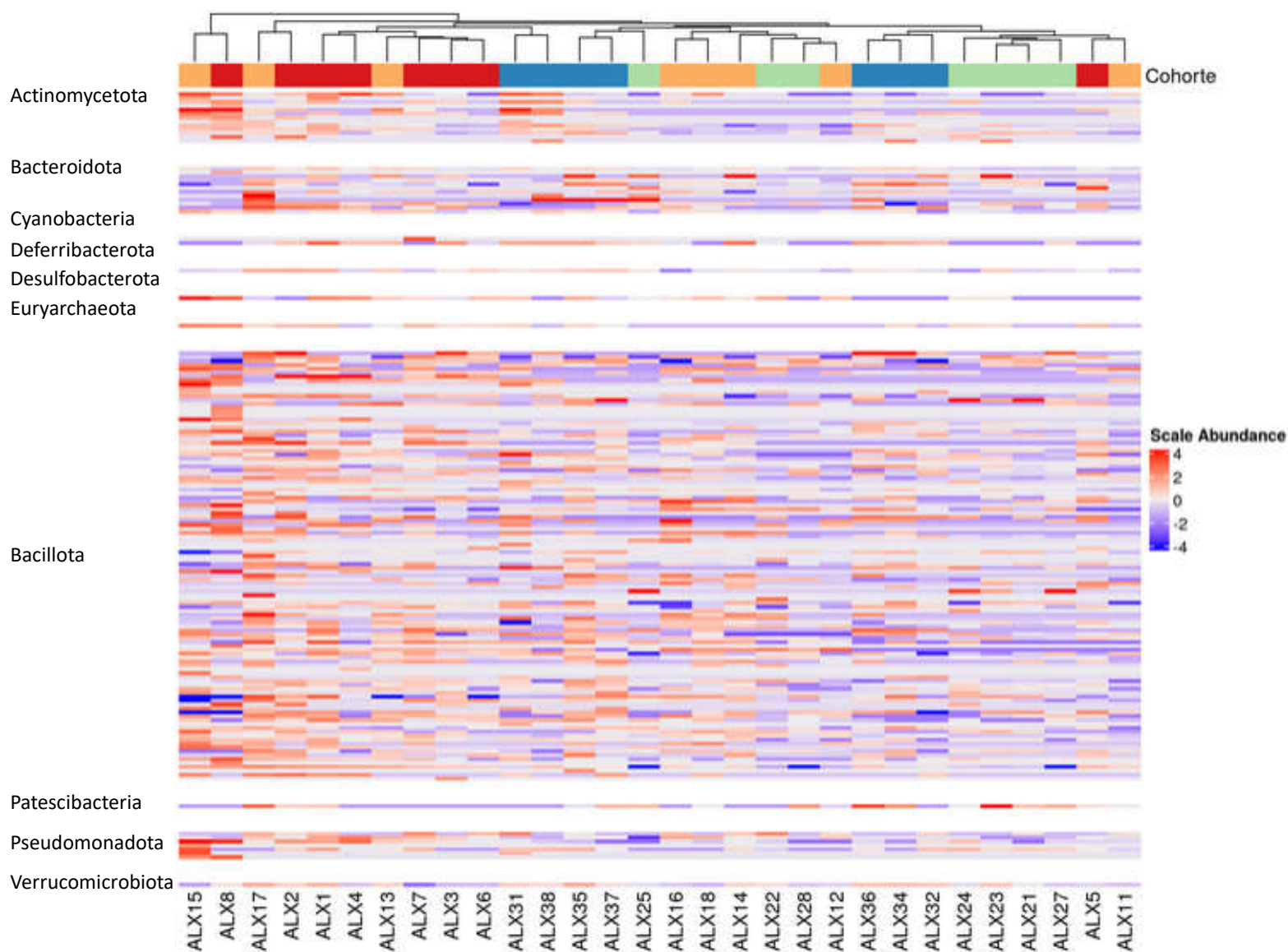


Figure S6. Heatmap representing the cohorts grouped based on the abundance of genera. Colors represent standardized abundances. Red means high abundance of the given genus, while blue means low abundance. Row labels add information of the phylum. PBS (red); apigenin (yellow); luteolin (green) and xanthohumol (blue).

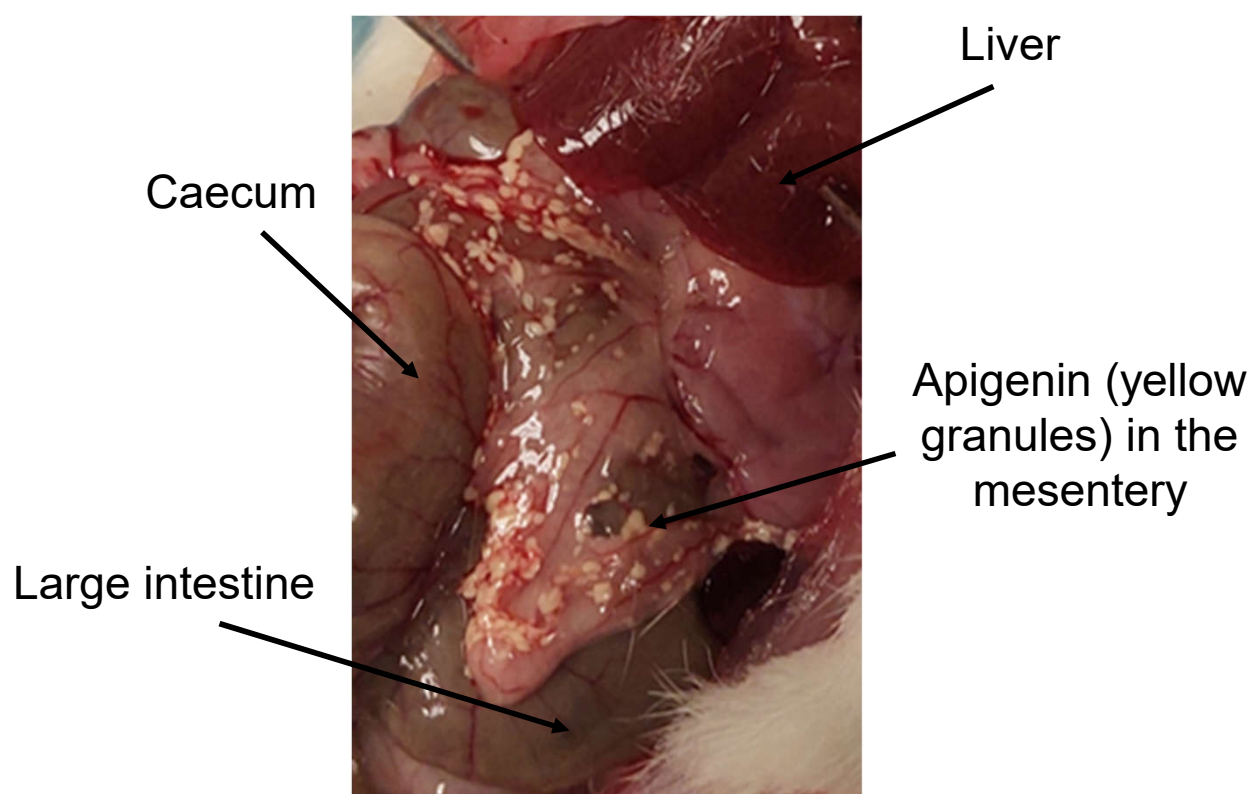


Figure S7. Apigenin precipitation granules in the mesentery of apigenin cohort rats.