

Supplementary material

Preventive Effects of Kefir on Colon Tumor Development in Wistar Rats – Gut Microbiota Critical Role

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C	+	+	0	+	0	+	0
KL	0	0	0	0	0	0	0
KP	0	0	0	+	+	+	0

Figure S1. Presence and number of tumors by animal. Each rectangle represents one animal from each group. The presence and number of colonic tumors are indicated by the '+' sign; animals that did not develop tumors are marked with a '0'. Control (C), Kefir lactation (KL), Kefir puberty (KP).

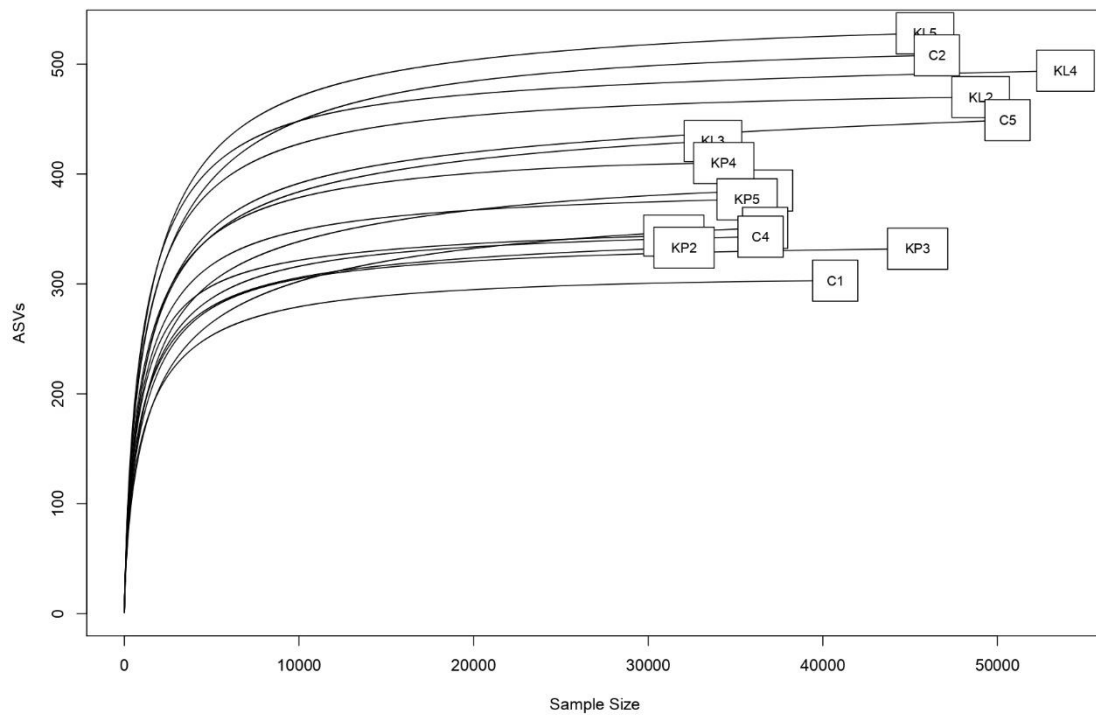


Figure S2. Rarefaction curves generated for each samples. Control (C), Kefir lactation (KL), Kefir puberty (KP).

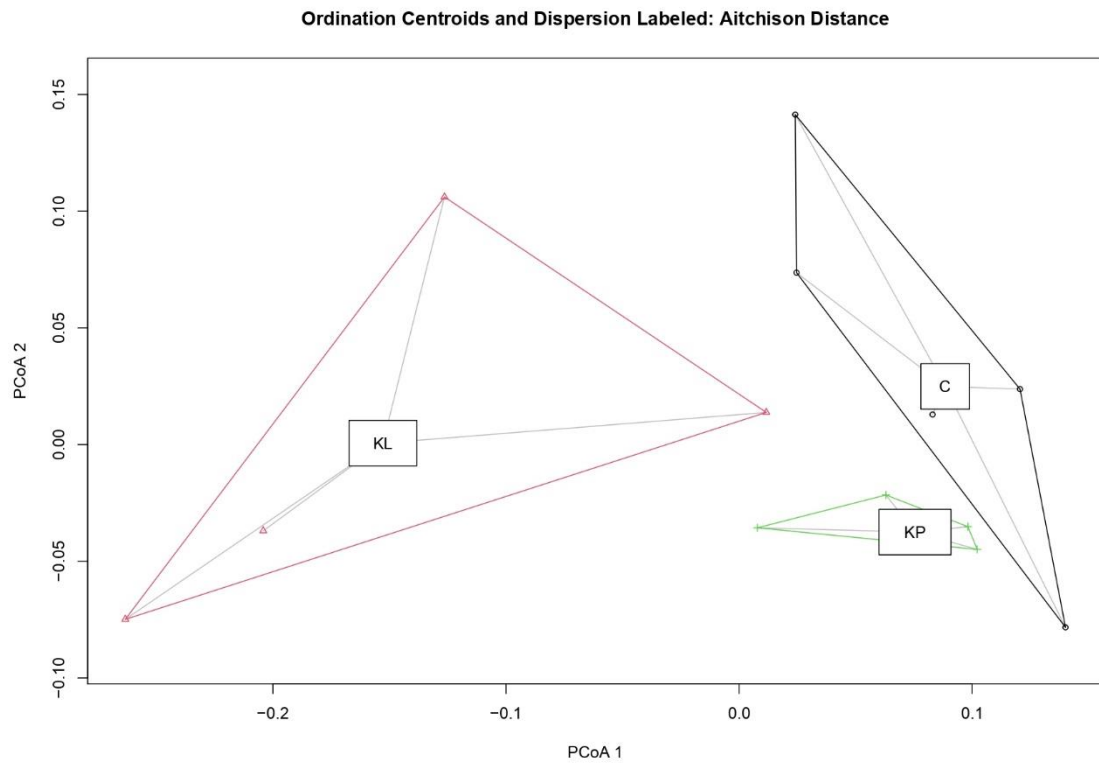


Figure S3. Kefir intake may cause a substantial change in the overall structure of the gut microbiota of offspring. Ordination Centroids and sample dispersion from clusters obtained on PCoA using weighted UniFrac distance. Control (C), Kefir lactation (KL), Kefir puberty (KP).

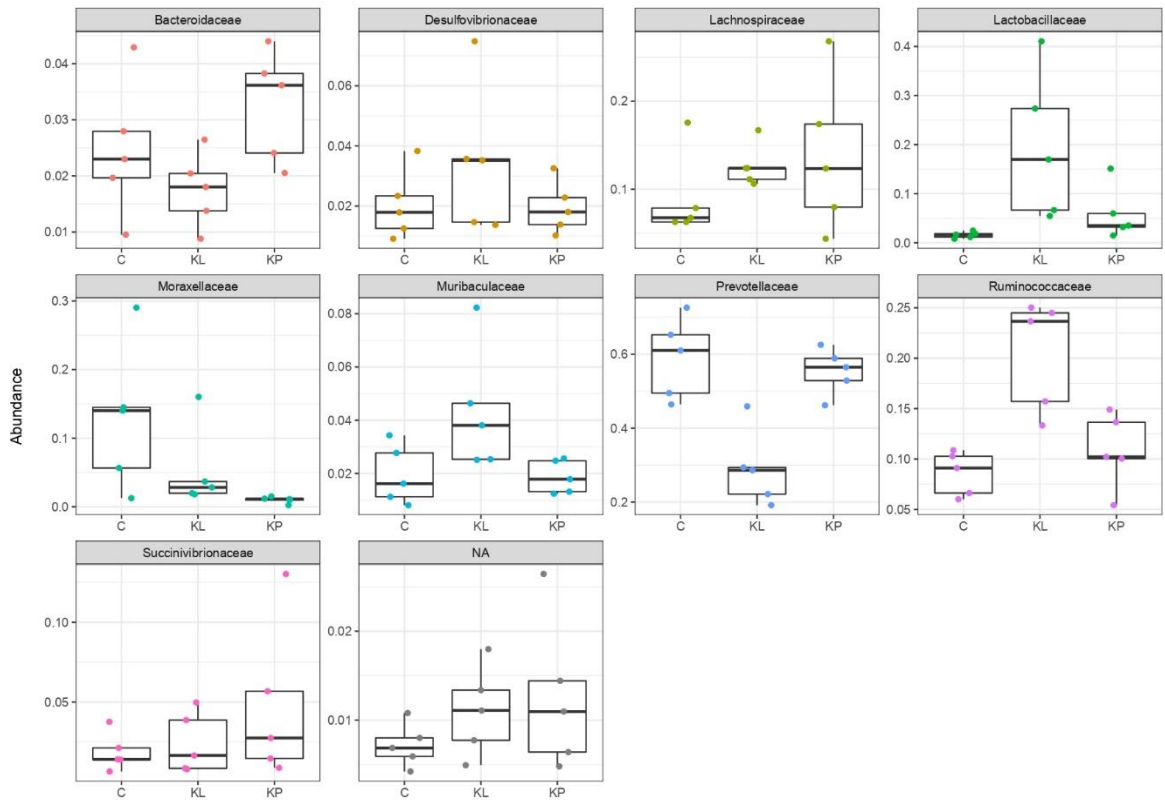


Figure S4. Kefir intake affects the bacterial abundance of offspring in the model of colorectal cancer. Boxplots of relative abundance of the gut microbial community in each group at the family level. Data are presented as median, minimum, and maximum values, $n = 5$. Control (C), Kefir lactation (KL), Kefir puberty (KP).

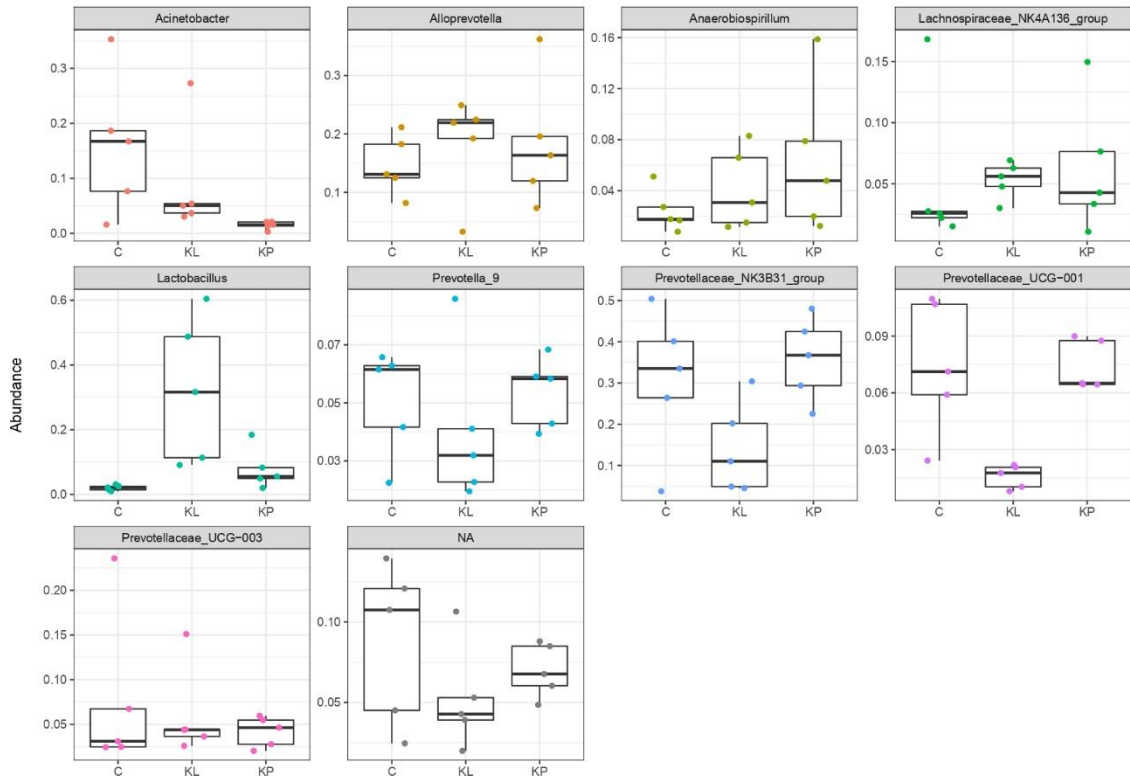


Figure S5. Kefir intake affects the bacterial abundance of offspring in the model of colorectal cancer. Boxplots of relative abundance of the gut microbial community in each group at the genus level. Data are presented as median, minimum, and maximum values, $n = 5$. Control (C), Kefir lactation (KL), Kefir puberty (KP).

Table S1. Inflammatory Biomarkers in Colon of Adult Offspring.

Biomarkers	C	KL	KP	p-value
IL-1 β (pg/ml)	321.7 \pm 7.72	305.5 \pm 9.16	308.3 \pm 4.64	0.288
IL-6 (pg/ml)	427.6 \pm 6.47	446.0 \pm 13.52	413.0 \pm 6.30	0.259
TNF (pg/ml)	675.2 \pm 12.92	687.0 \pm 10.42	664.2 \pm 10.56	0.387
IFN- γ (pg/ml)	173.0 \pm 5.93	175.2 \pm 5.84	187.5 \pm 7.13	0.249
NO (μ M)	26.19 \pm 1.17	25.33 \pm 0.80	24.92 \pm 0.73	0.619

The results are expressed as the mean \pm SEM (n = 6) and were analyzed by one-way ANOVA. IL, interleukin; TNF, tumor necrosis factor; IFN, interferon; NO, nitric oxide. Control (C), Kefir lactation (KL), Kefir puberty (KP).