Supplemental Figure Legends

Supplemental Figure S1: Chemical composition of the diets.

Supplemental Figure S2: DHA incorporates into splenic cells *in vivo.*

The fatty acid composition of mouse splenic cells fed for at least three weeks under control or DHA-enriched diet was determined by gas-liquid chromatography as previously described in (Bligh & Dyer, 1959).

Supplemental Figure S3: *In vivo* DHA treatment fails to prevent mammary cancer cell growth *in vivo* in absence of T cells.

Nude BALB/c mice under control or DHA-enriched diet were inoculated with 4T1 tumor cells and tumor growth was monitored over three weeks.

Supplemental Figure S4: IL-1β and IL-6 neutralization does not impair DHA *in vivo* effect on melanoma tumor outgrowth in competent mice.

B16F10 tumor cells were injected subcutaneously into C57BL/6 mice fed with control or DHA-enriched diet for at least three weeks. Five days after tumor implantation, tumor-bearing mice were treated with either thirty micrograms of IL-1 receptor antagonist (IL-1Ra, Kineret® from Biovitrum) or control rat IgG (Jackson ImmunoResearch Laboratories) injected i.p. three times a week (upper panel). To block IL-6 release, 200 µg per day of IL-6-neutralizing antibody (clone MP5-20F3, BioXcell) were injected i.p. on day 0, 1, 2, 3, 4 and 6 following tumor challenge (lower panel) in comparison to control rat IgG injection. *$p < 0.05$.

Supplemental Figure S5: Blockade of IL-17 by monoclonal antibody does not exert any cytotoxic effect on mammary tumor cells *in vitro*.

B16F10 melanoma cells were incubated with increasing doses of neutralizing anti-IL-17 antibody for 72 hours and the cell viability was assessed by MTT assay.