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Abstract

Gut microbiota behavior, low carbohydrate dietary intake and cancer.

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Abstract:

Gut microbiota is a key intermediary between diet and host physiology, modulating several metabolic and neurological signaling pathways. Microbiota plays a key role in digestion, metabolism and behavior as well as microbial response to diet. Dysbiosis of gut microbiota has been strongly related to cancer. Ketogenic diet alters the gut microbiota and protects against multiple chronicle diseases and recent studies have linked ketogenic diet with cancer prevention. It is known that over 30 percent of all cancers can be prevented by lifestyle and dietary measures. Obesity, nutrient sparse foods such as concentrated sugars and refined flour products impairs the glucose metabolism. The hypothesis that cytotoxicity induced by glucose deprivation in cancer cells is mediated by mitochondrial superoxide and H2O2 was confirmed by exposing glucose-deprived transformed human fibroblasts to electron transport chain blockers (ETCBs), known to increase mitochondrial superoxide and H2O2 production by a wide number of researchers. Therefore, glucose deprivation in the presence of ETCBs enhanced oxidative stress as well as cell death in several different human cancer cell lines (PC-3, DU145, MDA-MB231, and HT-29). Low fiber intake, consumption of red meat, and imbalance of omega 3 and omega 6 fats contribute to an increase in overall cancer risk in both genders. Studies have show that when a diet is well balanced, it is likely that there would be at least a 60 percent decrease in breast, colorectal, and prostate cancers. Improving metabolites and immunological

anticancer profile by k-PBD. There's robust evidence that shows prolonged fasting, fastingmimicking diet (FMD) and ketogenic diet demonstrates a strong usefulness as adjuvants in cancer therapy.

Biography:

Dr. Leo Nissola is a Physician and Scientist dedicated to Clinical Development, focused on Immuno Oncology Clinical Trials based in San Francisco, CA. Dr. Nissola is a Medical Doctor, published book author in immunology, member of the American Physician Scientist Association and American Society of Clinical Oncology. At the Parker Institute, he spearheads a Prostate Cancer Platform Clinical Trial (PORTER). His research focuses on checkpoint inhibitor adaptive resistance and understanding the mechanisms of prostate cancer castration resistance after androgen deprivation. He was a fellow at the Medical Oncology Genitourinary Department at MD Anderson Cancer Center in Houston, where he served the clinical team supporting prostate cancer clinical trials from early first-in-human through global phase 3 trials.

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