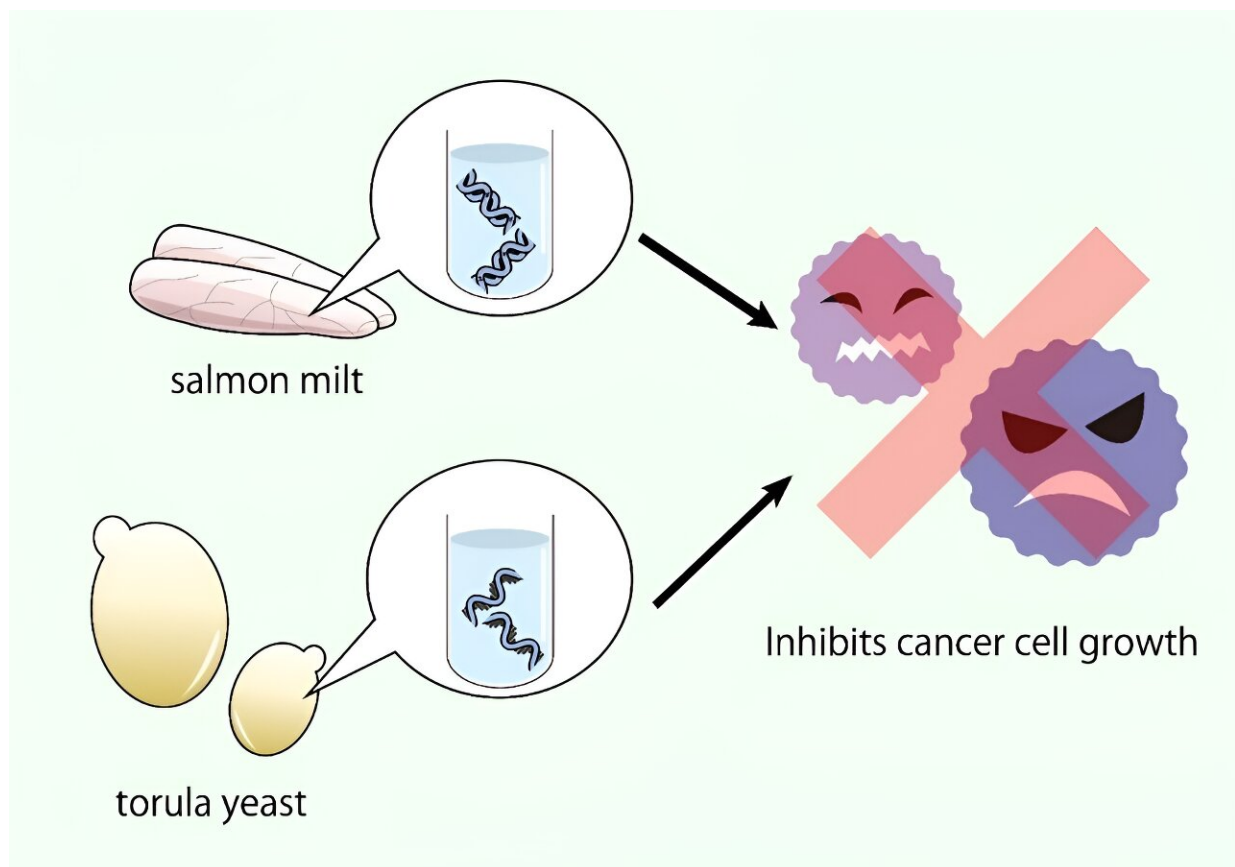


Compounds from nucleic acids in food show anticancer effects

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Compounds from nucleic acids derived from salmon milt DNA and torula yeast RNA showed effects against cancer cell growth. Credit: Osaka Metropolitan University

When people eat, they ingest the nucleic acids that reside in all living

things. The compounds in these acids could inhibit the growth of cancer cells, according to findings published in [PLOS ONE](#) by Osaka Metropolitan University Associate Professor Akiko Kojima-Yuasa of the Graduate School of Human Life and Ecology and colleagues.

Consuming [nucleic acids](#) found in food has been shown to boost the [immune system](#) and prevent some diseases. The nucleotides and nucleosides that result from digesting the acids are largely responsible for these beneficial effects.

Professor Kojima-Yuasa's team used compounds of nucleic acids derived from salmon milt DNA and torula yeast RNA and showed that chemical compounds like guanosine could prevent the proliferation of certain cancer cells in laboratory rats. The compounds stopped the cells from starting their replication phase.

"Our research provides a new perspective on the physiological functions of nucleic acids derived from food," Professor Kojima-Yuasa explained. "We hold hope that this will be a crucial step toward [cancer prevention](#)."

More information: Nahoko Shiomi et al, Suppression of Ehrlich ascites tumor cell proliferation via G1 arrest induced by dietary nucleic acid-derived nucleosides, *PLOS ONE* (2024). [DOI: 10.1371/journal.pone.0305775](#)

Provided by Osaka Metropolitan University

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