

A framework for evaluating the biologic pathways linking dietary patterns with colorectal cancer

Thursday, 23 November 2023 12:10 (6 minutes)

Introduction: Colorectal cancer (CRC) is a significant public health issue, both in terms of incidence and mortality. Lifestyle, particularly diet, is a crucial factor in the development of this cancer. The Global Cancer Update Programme (CUP Global) by World Cancer Research Fund International evaluates how diet, nutrition, physical activity, and body weight affect cancer risk and survival. Within CUP Global, we developed a framework for a systematic evaluation of the mechanistic evidence linking dietary patterns (DPs) with CRC.

Methods: To achieve this goal, our approach involved identifying intermediate phenotypes (IPs) between DPs and CRC to gain a better understanding of the biological processes that underpin the associations between these two components.

Preliminary Results: The designed framework applied a two-stage approach: first, using expert knowledge in combination with automated tools we identified a list of main potential biological processes and their associated IPs linking DPs to CRC. Second, we performed systematic literature reviews of human studies to evaluate the associations between DPs and IPs, and between IPs and CRC. If appropriate, specific questions may be answered by conducting additional literature reviews of experimental studies.

Next step: This project will produce a framework for a systematic evaluation of mechanistic research to support causal associations between DP and CRC.

Primary author: AHMADI, Nahid (Evidence Synthesis and Classification Branch, International Agency for Research on Cancer, Lyon, France)

Co-authors: GONZALEZ-GIL, Esther (Nutrition and Metabolism Branch, International Agency for Research on Cancer, Lyon, France); LAUBY-SECRETAN, Beatrice (Evidence Synthesis and Classification Branch, International Agency for Research on Cancer, Lyon, France); LEWIS, Sarah (Bristol Medical School, University of Bristol, Bristol, United Kingdom); CROCKER, Helen (World Cancer Research Fund International, London, United Kingdom); GORDON-DSEAGU, Vanessa (World Cancer Research Fund International, London, United Kingdom); GUNTER, Marc (Nutrition and Metabolism Branch, International Agency for Research on Cancer, Lyon, France); DOSSUS, Laure (Nutrition and Metabolism Branch, International Agency for Research on Cancer, Lyon, France)

Presenter: AHMADI, Nahid (Evidence Synthesis and Classification Branch, International Agency for Research on Cancer, Lyon, France)

Session Classification: Mini-oral Presentations