CATALYSE

Relevant Publications and Reports – October 2025

PUBLICATIONS
Health
Can everyone afford to eat healthy? New data show progress, but not everywhere *World Bank Blogs* The latest estimates of the Cost and Affordability of a Healthy Diet (CoAHD), published in the 2025 State of Food Security and Nutrition in the World (SOFI) report: Addressing high food price inflation for food security and nutrition, show that while global access to healthy diets is improving, progress remains uneven.
Supporting families this summer: A new initiative from Iceland and fair for you - The Iceland food club *MyNutriWeb* Cognitive decline (CD) is an age-related process exacerbated by metabolic syndrome (MetS), which may be mitigated by lifestyle interventions. Plasma biomarkers hold promise for early CD detection, but prospective evidence is limited. Therefore, we aimed to prospectively determine associations between peripheral neurology-related proteins and CD, and to assess whether the lifestyle intervention of the PREDIMED-Plus trial could modify these associations.
Plasma neurology-related proteins associated with cognition are modulated by lifestyle in adults *e*BioMedicine This study examines trends in retail food environments from 2009 to 2023 across 97 countries, exploring associations with changes in obesity prevalence.
Ultra-processed diets promote excess calorie consumption *NatureMedicine* A clinical trial designed to overcome limitations of previous trials now confirms that individuals consume more calories from ultra-processed diets than from minimally processed diets, even when both diets meet UK dietary guidelines and participants are losing weight.
The effects of extra virgin olive oil or butter on cardiovascular biomarkers in European and Chinese males in the UK: A pilot randomised crossover trial *PubMed* No dietary interventional studies have reported the impact of olive oil on cardiovascular risk markers in groups of different ethnic origins. We report a pilot randomised controlled trial of an intervention supplementing extra virgin olive oil (EVOO) on markers of cardiovascular risk among East Asian Chinese, and European Caucasian individuals.

Dietary quality and environmental footprint of health-care foodservice: a quantitative analysis using dietary indices and lifecycle assessment data

The Lancet

This study aims to provide a comprehensive assessment of the healthiness, nutritional adequacy, and the environmental footprint of foodservice in a sample of German hospitals and nursing homes.

Chemistry

Novel food in the EU, variation on phytosterols and phytostanols

FoodTimes

The EU list of novel food has recently been updated with a variation on the specifications of a new food already authorised, phytosterols and phytostanols from sunflower, concerning the content of 'other sterols/stanols'.

Detoxification of deoxynivalenol by pathogen-inducible tau-class glutathione transferases from wheat

Science Direct

In this study, Fusarium-inducible wheat GSTs were identified by analyzing the transcriptome of Fusarium-infected wheat heads. Twelve highly induced genes of the tau and phi GST classes were heterologously expressed and purified, biochemically characterized with model substrates, and assayed for activity with DON.

Reuse of plant-based side streams in food production: Overview of chemical food safety hazards

ScienceDirect

This study explored the potential chemical hazards that can be present in side streams from nine raw materials, i.e., apple, beetroot, carrot, citrus, corn, potato, sugar beet, tomato, and wheat, and brewer's spent grain (BSG), a side stream from beer production.

Urinary biomarker-based seasonal mycotoxin exposure assessment in rural resident populations of North-central Nigeria

Science Direct

The concentrations of mycotoxins and their metabolites in adult first morning void urine (n = 286) from agricultural populations in two north-central Nigerian states (Nasarawa and Niger) across harvest and storage seasons were assessed using LC-MS/MS.

Unmasking 'Forever Chemicals': Global Insights on PFAS and Urgent Calls to Action—Part 1

FoodSafety

The delayed response and mismanagement of PFAS and plastic waste have led to severe consequences for human health.

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Unmasking 'Forever Chemicals': Global Insights on PFAS and Urgent Calls to Action—Part 2

FoodSafety

In analyzing the PFAS crisis, it is necessary to identify system failures and their resulting health impacts.

Microbiology

How to Find Listeria in a Food Facility

FoodSafetyTech

If your company has decided to look for Listeria, how do you go about doing so? The overall objective is to establish, validate, and execute an "environmental monitoring program" (EMP). This is the 4th in a series of 6 Listeria in Food Plants articles.

Foodborne zoonotic diseases

EFSA

Zoonotic diseases are caused by infections that spread between animals and people. The severity of these diseases in humans varies from mild to life-threatening.

Hidden mycotoxin risks in the shift toward plant-based diets

Science Direct

This review explores the risks associated with mycotoxins in plant-based diets, focusing on regulated, emerging, and modified mycotoxins.

Understanding bacterial biofilms: From definition to treatment strategies

IADNS

In this paper, we systematically reviewed the formation of bacterial biofilms, associated infections, detection methods, and potential treatment strategies, aiming to provide researchers with the latest progress in the detection and treatment of bacterial biofilms.

A defined microbial community reproduces attributes of fine flavour chocolate fermentation

Nature Microbiology

Here, using bean fermentation samples from Colombian farms, we established that pH, temperature and microbiota composition, including both bacteria and fungi, influence key flavour attributes of premium chocolate.

Lactic acid bacteria: beyond fermentation to bio-protection against fungal spoilage and mycotoxins in food systems

Frontiers

This review highlights the ability of Lactic Acid Bacteria (LABs) to produce diverse antimicrobials, emphasizing antifungal metabolites as effective tools for enhancing food preservation and extending shelf life.

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The mutual effect of dietary fiber and polyphenol on gut microbiota: Implications for the metabolic and microbial modulation and associated health benefits

Science Direct

This review systematically explores the synergistic effects of DF-polyphenol combinations on gut microbiota modulation, microbial metabolites, and their implications for overall health.

REPORTS

World Heart Day: Global burden of CVD highlights regional gaps and new preventive strategies

Nutrition Insight

CVD remains the leading cause of disease burden worldwide, responsible for one in three deaths, according to the latest Global Burden of Disease (GBD) Study special report published in JACC, the flagship journal of the American College of Cardiology.

Global, Regional, and National Burden of Cardiovascular Diseases and Risk Factors in 204 Countries and Territories, 1990-2023

JACC

The report estimates of global, national, and subnational CVD burden, including 18 subdiseases and 12 associated modifiable risk factors.

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