COMMENTARY

615  Q&A: Ned Sharpless on COVID-19 and Cancer Prevention

RESEARCH BRIEFS

619  Leucoselect Phytosome Modulates Serum Eicosapentaenoic Acid, Docosahexaenoic Acid, and Prostaglandin E3 in a Phase I Lung Cancer Chemoprevention Study

Jenny T. Mao, Bingye Xue, Sili Fan, Patricia Neis, Clifford Qualls, Larry Massie, and Oliver Fiehn

In this correlative study of leucoselect phytosome for lung cancer chemoprevention in heavy active and former smokers, we demonstrate for the first time, favorable modulations of n-3PUFA and downstream PGE3 in fasting serum, further supporting the chemopreventive potential of leucoselect phytosome against lung cancer.

627  Estimating the Breast Cancer Burden in Germany and Implications for Risk-based Screening

Anne S. Quante, Anika Hüsing, Jenny Chang-Claude, Marion Kiechle, Rudolf Kaaks, and Ruth M. Pfeiffer

We show that a risk-based approach to mammography screening for German women can help detect breast cancer in women ages 40–49 years with increased risk and reduce screening costs and burdens for low-risk women ages 50–69 years. However, before recommending a particular implementation of a risk-based mammographic screening approach, further investigations of models and thresholds used are needed.

RESEARCH ARTICLES

635  Interception Targets of Angelica Gigas Nakai Root Extract versus Pyranocoumarins in Prostate Early Lesions and Neuroendocrine Carcinomas in TRAMP Mice

Su-Ni Tang, Peixin Jiang, Sangyub Kim, Jinhui Zhang, Cheng Jiang, and Junxuan Lü

This study explores potential molecular targets associated with in vivo activity of AGN root alcoholic extract and its major pyranocoumarins to intercept precancerous epithelial lesions and early malignancies of the prostate. Without an ethically-acceptable, clearly defined cancer initiation risk reduction strategy available for the prostate, using natural products like AGN to delay formation of malignant tumors could be a plausible approach for prostate cancer prevention.

649  Individual and Joint Associations of Genetic Risk and Healthy Lifestyle Score with Colorectal Neoplasms Among Participants of Screening Colonoscopy

Vanessa Erben, Prudence R. Carr, Feng Guo, Korbinian Weigl, Michael Hoffmeister, and Hermann Brenner

Genetic factors have strong impact on the risk of colorectal neoplasms, which may be reduced by healthy lifestyle. Similarly strong associations in relative terms across all levels of genetic risk imply that a healthy lifestyle may be beneficial due to higher absolute risk reduction in those at highest genetic risk.

659  Serum Levels of Androgens, Estrogens, and Sex Hormone Binding Globulin and Risk of Primary Gastric Cancer in Chinese Men: A Nested Case–Control Study


It was the first study to investigate the association of gastric cancer with prediagnostic sex steroid hormones and SHBG in an Asian male population. Although there were no overall associations for sex steroid hormone concentrations, higher concentrations of SHBG was associated with increased risk of noncardia gastric cancer.

667  A Novel Biomarker Panel for the Early Detection and Risk Assessment of Hepatocellular Carcinoma in Patients with Cirrhosis

Ilvira M. Khan, Donjeta Gjuka, Jingjing Jiao, Xiaoling Song, Ying Wang, Jing Wang, Peng Wei, Hashem B. El-Serag, Jorge A. Marrero, and Laura Beretta

This study identified a panel of 4 biomarkers that identifies patients with cirrhosis at high risk for HCC. This panel could have utility in HCC early detection in patients with cirrhosis under surveillance.

675  Randomized Controlled Trial of the Gastrin/CCK2 Receptor Antagonist Netazepide in Patients with Barrett’s Esophagus


Treatment of patients with Barrett’s esophagus with a gastrin/CCK2 receptor antagonist did not have obvious chemopreventive effects.
Hypergastrinemia has been associated with high-grade dysplasia and adenocarcinoma in patients with Barrett’s esophagus, and experimental studies suggest proinflammatory and proneoplastic effects of gastrin on Barrett’s esophagus. This is of potential concern, as patients with Barrett’s esophagus are treated with medications that suppress gastric acid production, resulting in increased physiologic levels of gastrin. However, in a randomized placebo-controlled controlled trial in patients with Barrett’s esophagus (beginning on page 675), Abrams and colleagues showed that treatment with netazepide, a gastrin/CCK2 receptor antagonist, had no significant impact on cellular proliferation, the primary study outcome. The cover shows a Barrett’s esophagus biopsy immunostained for Ki67 (brown) and pan-cytokeratin (red), with artificial intelligence algorithms used to identify Ki67-positive epithelial nuclei (400× magnification).