EDITORIAL

The 4Ps of Breast Cancer Chemoprevention: Putting Proven Principles into Practice
V. Craig Jordan

Crown-like Structures in Breast Adipose Tissue from Normal Weight Women: Important Impact
Nathan A. Berger
See related article, p. 235

MINIREVIEW

The Human Microbiome and Cancer

RESEARCH ARTICLES

Metabolic Obesity, Adipose Inflammation and Elevated Breast Aromatase in Women with Normal Body Mass Index
See related article, p. 223

Responsiveness of Brca1 and Trp53 Deficiency–Induced Mammary Preneoplasia to Selective Estrogen Modulators versus an Aromatase Inhibitor in Mus musculus

Loss of BRCA1 in the Cells of Origin of Ovarian Cancer Induces Glycolysis: A Window of Opportunity for Ovarian Cancer Chemoprevention
Tatsuyuki Chiyoda, Peter C. Hart, Mark A. Eckert, Stephanie M. McGregor, Ricardo R. Lastra, Ryuji Hamamoto, Yunsuke Nakamura, S. Diane Yamada, Olufunmilayo I. Olopade, Ernst Lengyel, and Iris L. Romero

ABOUT THE COVER

The estimated trillions of microbes that inhabit the human body establish a beneficial relationship with the host, but it is clear that dysbiotic relationships can develop, some of which are thought to result in the development of inflammatory diseases and cancer. Several case-control metagenomics studies suggest that dysbiosis in the commensal microbiota is associated with inflammatory disorders and various cancer types throughout the body. The cover image is an artist’s adaptation of a portion of Figure 1 from the Review in this issue, “The Human Microbiome and Cancer,” by Nelson and colleagues (beginning on page 226) and depicts the injection of effector cells by microbes (e.g., H. pylori) with subsequent modulation of various pathways, including Wnt/β-catenin and autophagy, to promote carcinogenesis. One mechanistic link between the microbiome and cancer is via the immune system, as the resident microbiota plays an essential role in activating, training, and modulating the host immune response. Immunological dysregulation is likely to provide mechanistic explanations as to how our microbiome influences cancer development and cancer therapies. The review discusses the complex connection between the human gut microbiome and cancer as well as the feasibility of developing novel cancer diagnostics based on microbiome profiles.