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147  **Q&A: Avrum Spira on the Pre-Cancer Atlas**

**REVIEW**

151  **Epigenetics/Epigenomics and Prevention of Early Stages of Cancer by Isothiocyanates**
Rasika Hudlikar, Lujing Wang, Renyi Wu, Shanyi Li, Rebecca Peter, Ahmad Shannar, Pochung Jordan Chou, Xia Liu, Zhigang Liu, Hsiao-Chen Dina Kuo, and Ah-Ng Kong

**RESEARCH ARTICLES**

165  **Regulatory T Cells Play an Important Role in the Prevention of Murine Melanocytic Nevi and Melanomas**
Tahseen H. Nasti, Nabiha Yusuf, Mohammad Asif Sherwani, Mohammad Athar, Laura Timares, and Craig A. Elmets
There has been little progress in developing novel strategies for preventing premalignant dysplastic nevi from becoming melanomas. In this study in mice, regulatory-T cells enhanced progression of benign nevi to malignant melanomas; and by inhibiting their activity, melanomas could be retarded. The findings identify new possibilities for melanoma prevention in high risk individuals.

175  **Impact of Personalized Genetic Breast Cancer Risk Estimation With Polygenic Risk Scores on Preventive Endocrine Therapy Intention and Uptake**
Julian O. Kim, Daniel J. Schaid, Celine M. Vachon, Andrew Cooke, Fergus J. Couch, Christina A. Kim, Jason P. Sinnwell, Linda Hasadri, Daniela L. Stan, Benjamin Goldenberg, Lonzetta Neal, Debjani Grenier, Amy C. Deganim, Lori A. Thicke, and Sandhya Pruthi Counseling women at increased breast cancer risk using polygenic risk score (PRS) risk estimates can significantly impact preventive endocrine therapy uptake. Further development of PRS testing to personalize breast cancer risk assessments and endocrine therapy counselling may serve to potentially reduce the incidence of breast cancer in the future.

185  **BRIP1, a Gene Potentially Implicated in Familial Colorectal Cancer Type X**
Lorena Martín-Morales, Pilar Garre, Víctor Lorca, Marta Cazorla, Patricia Llovet, Inmaculada Bando, Vanesa García-Barberan, María Luisa González-Morales, Clara Esteban-Jurado, Miguel de la Hoya, Sergi Castellvi-Bel, and Trinidad Caldes
We suggest that BRIP1 pathogenic germline variants may have a causal role in CRC as moderate cancer susceptibility alleles and be associated with hereditary CRC predisposition. A better understanding of hereditary CRC may provide important clues to disease predisposition and could contribute to molecular diagnostics, improved risk stratification, and targeted therapeutic strategies.

195  **Association of Common Use Pharmaceuticals in Reducing Risk of Esophageal Adenocarcinoma: A SEER–Medicare Analysis**
Holli A. Loomans-Kropp, Matthew Chaloux, Ellen Richmond, and Asad Umar
The use of common drugs, such as proton pump inhibitors, statins, non-steroidal anti-inflammatory drugs, or metformin, may reduce one’s risk of developing esophageal adenocarcinoma. These results suggest that repurposing agents often used for common chronic conditions may be a new strategy for cancer prevention efforts.

205  **Assessment of and Interventions for Women at High Risk for Breast or Ovarian Cancer: A Survey of Primary Care Physicians**
Goli Samimi, Brandy M. Heckman-Stoddard, Christine Holmberg, Bethany Tennant, Bonny Bloodgood Sheppard, Kisha I. Coa, Shelley S. Kay, Leslie G. Ford, Eva Szabo, and Lori M. Minasian
Primary care physicians are becoming more involved in cancer prevention management, so it is important that cancer risk assessment and medical society guideline recommendations for cancer prevention are better integrated into primary care to improve appropriate prescribing of cancer prevention interventions and help reduce cancer risk.
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ABOUT THE COVER

In Brazil, colorectal cancer is the second most common cancer among men and women and exhibits high mortality rates, partially due to late-stage presentation. To date, Brazil has not implemented a nationally organized colorectal screening program. Barretos Cancer Hospital is one of the largest cancer hospitals in Brazil, which cares for underserved healthcare patients from all over the country. Barretos Cancer Hospital developed a FIT-based organized colorectal screening program as part of the efforts to improve CRC outcomes. In the study starting on page 241, Guimarães and colleagues demonstrated that this colorectal cancer screening program achieved desirable quality metrics aligned with the EU Guidelines’ recommendations. Further, a shift towards earlier stages seen in screening-detected CRCs suggests an exciting opportunity to improve CRC outcomes. The cover image shows the distribution of screening participants across the Brazilian geographical regions, where the darkest green corresponds to the highest number of participants. The red dot is Barretos Cancer Hospital’s location, in Barretos’s city at the State of São Paulo.