# CANCER EPIDEMIOLOGY, BIOMARKERS & PREVENTION

## TABLE OF CONTENTS

### HIGHLIGHTS

1. Selected Articles from This Issue

### RESEARCH ARTICLES

3. **Comparative Effectiveness of Two Interventions to Increase Colorectal Cancer Screening for Those at Increased Risk Based on Family History: Results of a Randomized Trial**
   - Electra D. Paskett, Brittany M. Bernardo, Gregory S. Young, Paul L. Reiter, Cathy M. Tatum, Jill M. Oliveri, Cecilia R. DeGraffinreid, Darrell Mason Gray, Rachel Pearlman, and Heather Hampel

10. **Cost-Effectiveness of Personalized Screening for Colorectal Cancer Based on Polygenic Risk and Family History**
    - Dayna R. Cenin, Steffie K. Naber, Anne C. de Weerdt, Mark A. Jenkins, David B. Preen, Hooi C. Ee, Peter C. O’Leary, and Iris Lansdorp-Vogelaar

22. **Impact and Cost-Effectiveness of Human Papillomavirus Vaccination Campaigns**
    - Allison Portnoy, Nicole G. Campos, Stephen Sy, Emily A. Burger, Jamie Cohen, Catherine Regan, and Jane J. Kim

31. **Comparison of Molecular Assays for HPV Testing in Oropharyngeal Squamous Cell Carcinomas: A Population-Based Study in Northern Ireland**
    - Stephanie G. Craig, Lesley A. Anderson, Michael Moran, Laura Graham, Keith Currie, Keith Rooney, Max Robinson, Victoria Bingham, Kate S. Cuschieri, Stephen McQuaid, Andrew G. Schache, Terry M. Jones, Dennis McCance, Manuel Salto-Tellez, Simon S. McDade, and Jacqueline A. James

39. **Viruses in Skin Cancer (VIRUSCAN): Study Design and Baseline Characteristics of a Prospective Clinic-Based Cohort Study**

49. **High Ambient Solar UV Correlates with Greater Beta HPV Seropositivity in New South Wales, Australia**

57. **The Association between the Comprehensive Epstein-Barr Virus Serologic Profile and Endemic Burkitt Lymphoma**
    - Anna E. Coghill, Carla Proietti, Zhiwei Liu, Lutz Krause, Jeff Bethony, Ludmila Prokunina-Olsson, Adeola Obajemu, Francis Nkrumah, Robert J. Biggar, Kishor Bhatia, Allan Hildesheim, Denise L. Doolan, and Sam M. Mbulaiete

63. **Hepatitis C Virus Infection and the Temporal Trends in the Risk of Liver Cancer: A National Register-Based Cohort Study in Sweden**
    - Nurgul Batyrbekova, Soo Aleman, Charlotte Lybeck, Scott Montgomery, and Ann-Sofi Duberg

71. **Differences in Pathology, Staging, and Treatment between HIV and Uninfected Patients with Microscopically Confirmed Hepatocellular Carcinoma**
    - Jessie Torgersen, Tamar H. Taddei, Lesley S. Park, Dena M. Carbonari, Michael J. Kellan, Kisha Mitchell Richards, Xuchen Zhang, Darshana Jhala, Norbert Bräu, Robert Homer, Kathryn D’Addeo, Rajni Mehta, Melissa Skanderson, Farah Kidwai-Khan, Amy C. Justice, and Vincent Lo Re III

79. **Disparities in Hepatocellular Carcinoma Incidence in California: An Update**
    - Meera Sangaramoorthy, Yuan Yang, Mindy C. DeRouen, Chanda Ho, Ma Somsouk, Michele M. Tana, Caroline A. Thompson, Joseph Gibbons, Scarlett Lin Gomez, and Salma Shariff-Marco

88. **Sex and Race Disparities in the Incidence of Hepatocellular Carcinoma in the United States Examined through Age–Period–Cohort Analysis**
    - Xiaotao Zhang, Hashem B. El-Serag, and Aaron P. Thrift
TABLE OF CONTENTS

225 Common and Rare Sequence Variants Influencing Tumor Biomarkers in Blood

236 Testosterone Therapy in Relation to Prostate Cancer in a U.S. Commercial Insurance Claims Database
Michael B. Cook, Daniel C. Beachler, Lauren E. Parlett, Philip T. Cochetti, William D. Finkle, Stephan Lanes, and Robert N. Hoover

246 Commercial Gene Expression Tests for Prostate Cancer Prognosis Provide Paradoxical Estimates of Race-Specific Risk
Jordan H. Creed, Anders E. Berglund, Robert J. Rounbehler, Shivanshu Awasthi, John L. Cleveland, Jong Y. Park, Koj Y. Yamoah, and Travis A. Gerke

NULL RESULTS IN BRIEF
254 Psychotropic Medication Use and Postmenopausal Breast Cancer Risk
Anna George, Susan R. Sturgeon, Susan E. Hankinson, Aladdin H. Shadyab, Robert B. Wallace, and Katherine W. Reeves

ASPO REPORT
Melissa Maitin-Shepard, Marjorie L. McCullough, Elisa V. Bandera, and Karen Basen-Engquist

260 Acknowledgment to Reviewers

ABOUT THE COVER
The cover is adapted from Figure 1 in the article, "Evaluation of Tobacco Smoke and Diet as Sources of Exposure to Two Heterocyclic Aromatic Amines for the U.S. Population: NHANES 2013–2014," by Zhang and colleagues. The aim of this report was to characterize human exposure to AαC and MeAαC in the general population. The authors measured AαC and MeAαC as urinary biomarkers of exposure to these carcinogenic heterocyclic aromatic amines (HAA) as part of the National Health and Nutrition Examination Survey (NHANES), which conducts biomonitoring of the U.S. civilian, noninstitutionalized population. From a national, population-based study, the authors showed that tobacco smoke and diet are significantly associated with AαC exposure. The findings for tobacco smoke exposure among both exclusive smokers and nonusers are consistent with the fact that AαC is the most abundant carcinogenic HAA in tobacco smoke and indicated that tobacco smoke is a major source of AαC exposure in the U.S. population, with additional lesser contributions from certain dietary components. For more information, see the article beginning on page 103.