### Contents

#### Highlights of This Issue 899

**CEBP Focus: Biomarkers and Biospecimens**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>901</td>
<td>Methodologic Data: Important Foundation for Molecular and Biomarker Studies</td>
<td>Jimmie B. Vaught and Ann W. Hsing</td>
</tr>
<tr>
<td>903</td>
<td>Limitations of Direct Immunoassays for Measuring Circulating Estradiol Levels in Postmenopausal Women and Men in Epidemiologic Studies</td>
<td>Frank Z. Stanczyk, Jordan Jurow, and Ann W. Hsing</td>
</tr>
<tr>
<td>907</td>
<td>Strengths and Limitations of Laboratory Procedures for MicroRNA Detection</td>
<td>Jill Koshiol, Ena Wang, Yingdong Zhao, Francesco Marincola, and Maria Teresa Landi</td>
</tr>
<tr>
<td>912</td>
<td>International Efforts to Develop Biospecimen Best Practices</td>
<td>Jimmie B. Vaught, Elodie Caboux, and Pierre Hainaut</td>
</tr>
<tr>
<td>916</td>
<td>Establishment and Operation of a Biorepository for Molecular Epidemiologic Studies in Costa Rica</td>
<td>Bernal Cortés, Mark Schiffman, Rolando Herrero, Allan Hildesheim, Silvia Jiménez, Kathryn Shea, Paula González, Carolina Porras, Greivin Fallas, and Ana Cecilia Rodríguez</td>
</tr>
<tr>
<td>923</td>
<td>The Organization of European Cancer Institute Pathobiology Working Group and its Support of European Biobanking Infrastructures for Translational Cancer Research</td>
<td>Peter H.J. Riegman, Bas W.D. de Jong, and Antonio Liombart-Bosch</td>
</tr>
<tr>
<td>927</td>
<td>Long-term Variation in Serum 25-Hydroxyvitamin D Concentration among Participants in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial</td>
<td>Jonathan N. Hofmann, Kai Yu, Ronald L. Horst, Richard B. Hayes, and Mark P. Purdue</td>
</tr>
<tr>
<td>932</td>
<td>Measuring Serum Melatonin in Epidemiologic Studies</td>
<td>Ann W. Hsing, Tamra E. Meyer, Shelley Niwa, Sabah M. Quraishi, and Lisa W. Chu</td>
</tr>
<tr>
<td>947</td>
<td>Intra-Person Variation of Urinary Biomarkers of Oxidative Stress and Inflammation</td>
<td>Xiaoyan Wu, Hui Cai, Yong-Bing Xiang, Qiuyin Cai, Gong Yang, Dake Liu, Stephanie Sanchez, Wei Zheng, Ginger Milne, and Xiao-Ou Shu</td>
</tr>
<tr>
<td>953</td>
<td>Urine Collection and Processing for Protein Biomarker Discovery and Quantification</td>
<td>C. Eric Thomas, Wade Sexton, Kaaron Benson, Rebecca Sutphen, and John Koomen</td>
</tr>
<tr>
<td>960</td>
<td>Pooling Biomarker Data from Different Studies of Disease Risk, with a Focus on Endogenous Hormones</td>
<td>Timothy J. Key, Paul N. Appleby, Naomi E. Allen, and Gillaillan K. Reeves</td>
</tr>
<tr>
<td>966</td>
<td>Molecular Pathology in Epidemiologic Studies: A Primer on Key Considerations</td>
<td>Mark E. Sherman, Will Howatt, Fiona M. Blows, Paul Pharoah, Stephen M. Hewitt, and Montserrat Garcia-Closas</td>
</tr>
<tr>
<td>973</td>
<td>Simultaneous Recovery of DNA and RNA from Formalin-Fixed Paraffin-Embedded Tissue and Application in Epidemiologic Studies</td>
<td>Wen-Yi Huang, Timothy M. Sheehy, Lee E. Moore, Ann W. Hsing, and Mark P. Purdue</td>
</tr>
</tbody>
</table>

---

A Journal of the American Association for Cancer Research www.aacrjournals.org
Comparison of mRNA and Protein Measures of Cytokines following Vaccination with Human Papillomavirus-16 L1 Virus-like Particles
Fatma M. Shebl, Ligia A. Pinto, Alfonso García-Piñeres, Richard Lempicki, Marcus Williams, Clayton Harro, and Allan Hildesheim

Analytic Variability in Immunohistochemistry Biomarker Studies
Valsamo K. Anagnostou, Allison W. Welsh, Jennifer M. Gillnane, Summar Siddiqui, Camil Liceaga, Mark Gustavson, Konstantinos N. Syrigos, Jill L. Reiter, and David L. Rimm

Assessment of Automated Image Analysis of Breast Cancer Tissue Microarrays for Epidemiologic Studies

Standards Affecting the Consistency of Gene Expression Arrays in Clinical Applications
Steven A. Enkemann

Standard Preanalytical Coding for Biospecimens: Defining the Sample PREanalytical Code
Fotini Betsou, Sylvain Lehmann, Garry Ashton, Michael Barnes, Erica E. Benson, Domenico Coppola, Yvonne DeSouza, James Eliason, Barbara Glazer, Fiorella Guadagni, Keith Harding, David J. Horsfall, Cynthia Kleeeberger, Umberto Nanni, Anil Prasad, Kathi Sheu, Amy Skubitz, Stella Somiari, and Elaine Günter

Subtype-Specific Risk of Testicular Tumors among Immigrants and Their Descendants in Sweden, 1960 to 2007
Omid Beiki, Fredrik Granath, Peter Allebeck, Olof Akre, and Tahereh Moradi

EUROPEAN ANCESTRY IS POSITIVELY ASSOCIATED WITH BREAST CANCER RISK IN MEXICAN WOMEN
Laura Fejerman, Isabelle Romieu, Esther M. John, Eduardo Laczko-Ponce, Scott Huntsman, Kenneth B. Beckman, Eliseo J. Pérez-Stable, Esteban González Burchard, Elad Ziv, and Gabriela Torres-Mejía
### Comparison of Two Methods for Estimating Absolute Risk of Prostate Cancer Based on Single Nucleotide Polymorphisms and Family History


### Manganese Superoxide Dismutase Polymorphism and Risk of Gastric Lesions, and Its Effects on Chemoprevention in a Chinese Population

Hua-kang Tu, Kai-feng Pan, Yang Zhang, Wen-qing Li, Lian Zhang, Jun-ling Ma, Ji-you Li, and Wei-cheng You

### Genetic Susceptibility Variants for Chronic Lymphocytic Leukemia


### Longitudinal Predictors of Nonadherence to Maintenance of Mammography

Jennifer M. Gierisch, Jo Anne Earp, Noel T. Brewer, and Barbara K. Rimer

### Mammographic Density Change with 1 Year of Aerobic Exercise among Postmenopausal Women: A Randomized Controlled Trial

Christy G. Woolcott, Kerry S. Courneya, Norman F. Boyd, Martin J. Yaffe, Tim Terry, Anne Mclernan, Rollin Brant, Rachel Ballard-Barbash, Melinda L. Irwin, Charlotte A. Jones, Sony Brar, Kristin L. Campbell, Margaret L. McNeely, Kristina H. Karvinen, and Christine M. Friedenreich

### Temporal Trends in Geographic Disparities in Small-Area Breast Cancer Incidence and Mortality, 1988 to 2005

Mario Schootman, Min Lian, Anjali D. Deshpande, Elizabeth A. Baker, Sandi L. Pruitt, Rebecca Aft, and Donna B. Jeffe

### Assesing the Amount of Unscheduled Screening (“Contamination”) in the Control Arm of the UK “Age” Trial

Nicola Kingston, Iyamide Thomas, Louise Johns, and Sue Moss for the Trial Management Group

### The Gastric Cardia Is Not a Target for Human Papillomavirus-Induced Carcinogenesis


### A Genome-Wide Association Study of Prognosis in Breast Cancer

Elizabeth M. Azzato, Paul D.P. Pharoah, Patricia Harrington, Douglas F. Easton, David Greenberg, Neil E. Caporaso, Stephen J. Chanock, Robert N. Hoover, Gilles Thomas, David J. Hunter, and Peter Kraft

### Correction: Exposure to Smoking Imagery in the Movies and Experimenting with Cigarettes among Mexican Origin Youth

### Correction: Cognitive Susceptibility to Smoking: Two Paths to Experimenting among Mexican Origin Youth

### Correction: A Rigorous and Comprehensive Validation: Common Genetic Variations and Lung Cancer