

CANCER PREVENTION RESEARCH

TABLE OF CONTENTS

RESEARCH ARTICLES

247 **Precision Cut Lung Slices as a Preclinical Model for Non-Small Cell Lung Cancer Chemoprevention**

Kayla Sompel, Alex J. Smith, Caroline Hauer, Alamelu P. Elango, Eric T. Clamby, Robert L. Keith, and Meredith A. Tennis

PCLS could be a new model for premalignancy and chemoprevention research, and this work evaluates the model with tissue from prevention-relevant genetic and carcinogen exposed *in vivo* mouse models, in addition to evaluating chemoprevention agents.

259 **Stressful Life Events, Social Support, and Incident Breast Cancer by Estrogen Receptor Status**

Wayne R. Lawrence, Jasmine A. McDonald, Faustine Williams, Meredith S. Shiels, Neal D. Freedman, Ziqiang Lin, and Jared W. Magnani

Epidemiologic studies on the association between psychosocial stress and breast cancer risk remain inconsistent, while investigation of whether the association differs by ER status is limited. In this prospective cohort of postmenopausal women, high experiences of stressful life events were positively associated with ER-negative disease but not ER-positive.

269 **Genetic Associations with Smoking Relapse and Proportion of Follow-up in Smoking Relapse throughout Adulthood in Pre- and Postmenopausal Women**

Stephanie K. Jones, Anthony J. Alberg, Kristin Wallace, Brett Froeliger, Matthew J. Carpenter, and Bethany Wolf

This study is the first to quantify genetic associations with smoking relapse among female smokers throughout adulthood. These findings could inform precision medicine approaches to improve long-term smoking relapse prevention to reduce smoking attributable cancer morbidity and mortality.

281 **Validation of an Abridged Breast Cancer Risk Prediction Model for the General Population**

Erika L. Spaeth, Gillian S. Dite, John L. Hopper, and Richard Allman

In this prospective population-based cohort study, we show the improved performance of a new risk assessment model compared with a gold-standard model (BCRAT). The classification of at-risk women using this new model highlights the opportunity to improve risk stratification and implement existing clinical risk-reduction interventions.

293 **Simple Prediction Model for Colorectal Serrated Polyps: Development and External Validation Study in U.S. Prospective Cohorts**

Zhangyan Lyu, Dong Hang, Xiaosheng He, Kana Wu, Yin Cao, Bernard Rosner, Andrew T. Chan, Shuji Ogino, Ni Li, Min Dai, Edward L. Giovannucci, and Mingyang Song

On the basis of four prospective studies in the United States, we developed and externally validated a simple risk prediction model for high-risk SPs in the setting of colonoscopy screening. Our model showed moderate discriminatory accuracy and has potential utility for individualized risk assessment, healthy lifestyle recommendations, and tailored colorectal cancer prevention.

TABLE OF CONTENTS

ABOUT THE COVER

Preclinical mouse models for lung premalignant lesions and chemoprevention are costly, time intensive, and require large numbers of animals. 3D models offer an intermediate step between *in vitro* and *in vivo* models and of the various models, precision cut lung slices (PCLS) most closely recapitulate *in vivo* tissue. In the study starting on page 247, Sompel and colleagues demonstrated for the first time the use of a PCLS model for studies of lung cancer premalignancy and chemoprevention agents. The cover image shows multiplex immunofluorescence analysis used to detect the presence of immune cells in PCLS generated from mice and treated *ex vivo* with the lung cancer chemoprevention agent iloprost. Macrophages (light pink) and T-cells (white, orange, green) persisted after one week of culture, suggesting the potential for using PCLS to study the role of these cells in mechanisms of premalignant lesion biology and chemoprevention.

doi: 10.1158/1940-6207.CAPR-16-5-CVR

