

CANCER PREVENTION RESEARCH

TABLE OF CONTENTS

COMMENTARY

- 129 Evaluating Lung Cancer Screening Across Diverse Healthcare Systems: A Process Model from the Lung PROSPR Consortium**
Katharine A. Rendle, Andrea N. Burnett-Hartman, Christine Neslund-Dudas, Robert T. Greenlee, Stacey Honda, Jennifer Elston Lafata, Pamela M. Marcus, Mary E. Cooley, Anil Vachani, Rafael Meza, Caryn Oshiro, Michael J. Simoff, Mitchell D. Schnall, Elisabeth F. Beaver, V. Paul Doria-Rose, Chyke A. Doubeni, and Debra P. Ritzwoller

MINIREVIEW

- 137 E-Cigarettes and Cancer Risk**
Boris Mravec, Miroslav Tibensky, Lubica Horvathova, and Pavel Babal

RESEARCH BRIEF

- 145 Effects of Electronic Cigarette Constituents on the Human Lung: A Pilot Clinical Trial**
AC Min-Ae Song, Sarah A. Reisinger, Jo L. Freudenheim, Theodore M. Brasky, Ewy A. Mathé, Joseph P. McElroy, Quentin A. Nickerson, Daniel Y. Weng, Mark D. Wewers, and Peter G. Shields

RESEARCH ARTICLES

- 153 Comparison of Systemic Exposure to Toxic and/or Carcinogenic Volatile Organic Compounds (VOC) during Vaping, Smoking, and Abstention**
Gideon St. Helen, Evangelia Liakoni, Natalie Nardone, Newton Addo, Peyton Jacob III, and Neal L. Benowitz

- 163 Performance of HPV Genotyping Combined with p16/Ki-67 in Detection of Cervical Precancer and Cancer Among HPV-Positive Chinese Women**

Ming-Yue Jiang, Zeni Wu, Tingyuan Li, Lulu Yu, Shao-Kai Zhang, Xun Zhang, Pengpeng Qu, Peisong Sun, Ming-Rong Xi, Xin Liu, Guangdong Liao, Lixin Sun, Yongzhen Zhang, Wen Chen, and You-Lin Qiao

- 173 A Multistage Murine Breast Cancer Model Reveals Long-Lived Premalignant Clones Refractory to Parity-Induced Protection**

Shuo Li, Shelley A. Gestl, and Edward J. Gunther

- 185 Bisphosphonates Zometa and Fosamax Synergize with Metformin to Prevent AOM-Induced Colon Cancer in F344 Rat Model**

Venkateshwar Madka, Gaurav Kumar, Gopal Pathuri, Yuting Zhang, Stanley Lightfoot, Adam S. Asch, Altaf Mohammed, Vernon E. Steele, and Chinthalapally V. Rao

- 195 Metformin Use and the Risk of Cancer in Patients with Diabetes: A Nationwide Sample Cohort Study**
Tak Kyu Oh and In-Ae Song

- 203 A Phase IIa Trial of Metformin for Colorectal Cancer Risk Reduction among Individuals with History of Colorectal Adenomas and Elevated Body Mass Index**

Jason A. Zell, Christine E. McLaren, Timothy R. Morgan, Michael J. Lawson, Sherif Rezk, C. Gregory Albers, Wen-Pin Chen, Joseph C. Carmichael, Jinah Chung, Ellen Richmond, L.M. Rodriguez, Eva Szabo, Leslie G. Ford, Michael N. Pollak, and Frank L. Meyskens

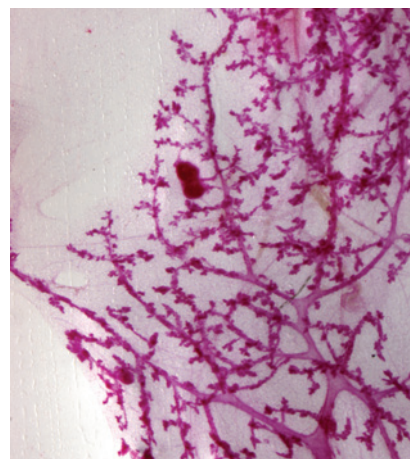
AC AC icon indicates AuthorChoice

For more information please visit www.aacrjournals.org

TABLE OF CONTENTS

ABOUT THE COVER

Environmental exposures that increase breast cancer risk typically occur decades prior to disease onset, reinforcing the concept that breast cancers evolve from long-lived premalignant clones. The biological description of these premalignant clones is incomplete, hindering efforts to improve breast cancer chemoprevention strategies. To create an experimental framework for isolating and targeting premalignant breast disease, Li and colleagues (in a study beginning on page 173) drew inspiration from classical mouse models of multistage skin carcinogenesis. By combining chemical carcinogenesis with an inducible transgenic mouse model of breast cancer, mammary carcinogenesis was resolved into discrete initiation and progression stages. Mechanistically, carcinogen-induced *HRas^{Q61L}* mutations mark the clonal link between long-lived, subclinical mammary lesions and subsequent transgene-driven mammary cancers. The cover image shows a carmine-stained whole-mount of a mammary gland from a carcinogen-exposed mouse. The gland, harvested after two weeks of transgene-driven activation of the Wnt pathway, harbors a focal ductal lesion progressing toward overt mammary cancer amid a background of diffuse Wnt-driven hyperplasia. Variations on this multistage modeling strategy may help identify and validate novel cellular and molecular targets for breast cancer chemoprevention.



Cancer Prevention Research

13 (2)

Cancer Prev Res 2020;13:129-212.

Updated version Access the most recent version of this article at:
<http://cancerpreventionresearch.aacrjournals.org/content/13/2>

E-mail alerts [Sign up to receive free email-alerts](#) related to this article or journal.

Reprints and Subscriptions To order reprints of this article or to subscribe to the journal, contact the AACR Publications Department at pubs@aacr.org.

Permissions To request permission to re-use all or part of this article, use this link <http://cancerpreventionresearch.aacrjournals.org/content/13/2>. Click on "Request Permissions" which will take you to the Copyright Clearance Center's (CCC) Rightslink site.