

RESEARCH ARTICLES

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|------|--|------|--|
| 1151 | <p>Concordant Effects of Aromatase Inhibitors on Gene Expression in ER⁺ Rat and Human Mammary Cancers and Modulation of the Proteins Coded by These Genes</p> <p>Yan Lu, Ming You, Zara Ghazoui, Pengyuan Liu, Peter T. Vedell, Weidong Wen, Ann M. Bode, Clinton J. Grubbs, and Ronald A. Lubet</p> | 1212 | <p>Interaction of Fatty Acid Genotype and Diet on Changes in Colonic Fatty Acids in a Mediterranean Diet Intervention Study</p> <p>Shannon R. Porenta, Yi-An Ko, Stephen B. Gruber, Bhramar Mukherjee, Ana Baylin, Jianwei Ren, and Zora Djuric</p> |
| 1162 | <p>Colorectal Adenoma Stem-like Cell Populations: Associations with Adenoma Characteristics and Metachronous Colorectal Neoplasia</p> <p>Angela N. Bartley, Nila Parikh, Chiu-Hsieh Hsu, Denise J. Roe, Julie A. Buckmeier, Lynda Corley, Ron A. Phipps, Gary Gallick, Peter Lance, Patricia A. Thompson, and Stanley R. Hamilton</p> | 1222 | <p>Deferasirox Induces Mesenchymal-Epithelial Transition in Crocidolite-Induced Mesothelial Carcinogenesis in Rats</p> <p>Hirota Nagai, Yasumasa Okazaki, Shan Hwu Chew, Nobuaki Misawa, Hiroyuki Yasui, and Shinya Toyokuni</p> |
| 1171 | <p>Genes with Aberrant Expression in Murine Preneoplastic Intestine Show Epigenetic and Expression Changes in Normal Mucosa of Colon Cancer Patients</p> <p>Daniel Leclerc, Nancy Lévesque, Yuanhang Cao, Liyuan Deng, Qing Wu, Jasmine Powell, Carmen Sapienza, and Rima Rozen</p> | 1231 | <p>microRNA Portraits in Human Vulvar Carcinoma</p> <p>Beatriz de Melo Maia, André Mourão Lavorato-Rocha, Lara Sant'Ana Rodrigues, Cláudia Malheiros Coutinho-Camillo, Glaucio Baiocchi, Monica Maria Stiepcich, Renato Puga, Leandro de A. Lima, Fernando Augusto Soares, and Rafael Malagoli Rocha</p> |
| 1182 | <p>The Parity-Associated Microenvironmental Niche in the Omental Fat Band Is Refractory to Ovarian Cancer Metastasis</p> <p>Courtney A. Cohen, Amanda A. Shea, C. Lynn Heffron, Eva M. Schmelz, and Paul C. Roberts</p> | 1242 | <p>Durable Antibody Responses Following One Dose of the Bivalent Human Papillomavirus L1 Virus-Like Particle Vaccine in the Costa Rica Vaccine Trial</p> <p>Mahboobeh Safaeian, Carolina Porras, Yuanji Pan, Aimee Kreimer, John T. Schiller, Paula Gonzalez, Douglas R. Lowy, Sholom Wacholder, Mark Schiffman, Ana C. Rodriguez, Rolando Herrero, Troy Kemp, Gloriana Shelton, Wim Quint, Leen-Jan van Doorn, Allan Hildesheim, and Ligia A. Pinto, for the CVT Group</p> |
| 1194 | <p>Exposure to Excess Estradiol or Leptin during Pregnancy Increases Mammary Cancer Risk and Prevents Parity-Induced Protective Genomic Changes in Rats</p> <p>Sonia de Assis, Mingyue Wang, Lu Jin, Kerrie B. Bouker, and Leena A. Hilakivi-Clarke</p> | | |

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ABOUT THE COVER

Pregnancy affects a woman's breast cancer risk depending upon age at first pregnancy. Accumulating evidence indicates that pregnant women who have high circulating estrogen levels or who gain an excessive amount of weight, which is associated with high leptin levels, are significantly more likely to develop breast cancer after menopause. Using a preclinical model, the present study investigated whether excess estradiol (E2) or leptin during pregnancy increases later mammary tumorigenesis in rats. The cover micrograph depicts the effects of exposure to excess E2 (PCNA immunohistochemical staining; dark nuclei; 400× magnification) or leptin (not shown) during pregnancy on cell proliferation in representative mammary gland sections: the proliferation index was significantly higher in E2-treated parous rats compared to those of vehicle-treated parous control rats ($P < 0.001$). These findings suggest that an exposure to excess E2 or leptin during pregnancy prevents the parity-induced protective changes in mammary gland and increases subsequent breast cancer risk. This study further suggests that pregnant women should avoid being exposed to the highest levels of E2 and leptin during pregnancy, caused by either endogenous or life-style factors such as gaining excessive amounts of weight during pregnancy, which may not only put them at risk of developing gestational diabetes and hypertension but also increase later breast cancer risk. See the article by de Assis and colleagues (beginning on page 1194) for more information.

