Highlights of This Issue  1

REVIEWS

3  Smoking, p53 Mutation, and Lung Cancer
   Don L. Gibbons, Lauren A. Byers, and Jonathan M. Kurie

14  Nicotine-Mediated Cell Proliferation and Tumor Progression in Smoking-Related Cancers
   Courtney Schaal and Srikumar P. Chellappan

24  Smoking Out Reproductive Hormone Actions in Lung Cancer
   Jill M. Siegfried

CELL CYCLE AND SENESCENCE

32  FBXW7 Mediates Chemotherapeutic Sensitivity and Prognosis in NSCLCs
   Takehiko Yokobori, Yoro Yokoyama, Akira Mogi, Hideki Endoh, Bolag Altan, Takayuki Kosaka, Ei Yamaki, Toshiki Yajima, Kenji Tomizawa, Yoko Azuma, Ryoichi Onozato, Tatsuya Miyazaki, Shigebumi Tanaka, and Hiroyuki Kuwano

CELL DEATH AND SURVIVAL

58  The Impact of miRNA-Based Molecular Diagnostics and Treatment of NRF2-Stabilized Tumors
   Shinuke Yamamoto, Jun Inoue, Tatsuyuki Kawano, Ken-ichi Kozaki, Ken Omura, and Jokji Inazawa

ONCOGENES AND TUMOR SUPPRESSORS

119  Mitotic Arrest by Tumor Suppressor RASSF1A Is Regulated via CHK1 Phosphorylation
   Lingyun Jiang, Rong Song, M. Saeed Sheikh, and Ying Huang

CHROMATIN, GENE, AND RNA REGULATION

82  Loss of the Nucleosome-Binding Protein HMGN1 Affects the Rate of N-Nitrosodiethylamine-Induced Hepatocarcinogenesis in Mice
   Yuri V. Postnikov, Takashi Furusawa, Diana C. Haines, Valentina M. Factor, and Michael Bustin

DNA DAMAGE AND REPAIR

91  Cocarcinogenic Effects of Intrahepatic Bile Acid Accumulation in Cholangiocarcinoma Development
   Elisa Lozano, Laura Sanchez-Vicente, Maria J. Monte, Elisa Herraez, Oscar Briix, Jesus M. Banales, Jose J.G. Marin, and Rocío I.R. Macías
The SmgGDS Splice Variant SmgGDS-558 Is a Key Promoter of Tumor Growth and RhoA Signaling in Breast Cancer
Andrew D. Hauser, Carmen Bergom, Nathan J. Schuld, Xiuxu Chen, Ellen L. Lorimer, Jian Huang, Alexander C. Mackinnon, and Carol L. Williams

Interaction of Delta-like 1 Homolog (Drosophila) with Prohibitins and Its Impact on Tumor Cell Clonogenicity
Arna Begum, Qun Lin, Chenye Yu, Yuri Kim, and Zhong Yun

Integrin α3β1 Can Function to Promote Spontaneous Metastasis and Lung Colonization of Invasive Breast Carcinoma
Bo Zhou, Katherine N. Gibson-Corley, Mary E. Herndon, Yihan Sun, Elisabeth Gustafson-Wagner, Melissa Teoh-Fitzgerald, Frederick E. Domann, Michael D. Henry, and Christopher S. Stipp

Interaction of Delta-like 1 Homolog (Drosophila) with Prohibitins and Its Impact on Tumor Cell Clonogenicity
Arna Begum, Qun Lin, Chenye Yu, Yuri Kim, and Zhong Yun

About the Cover
With regard to incidence and mortality, lung cancer is one of the most common and deadliest cancers worldwide. Interestingly, early epidemiologic and clinical studies suggested an association between tobacco and lung cancer. By the 1950s and 1960s, it was evident that smoking, primarily from cigarettes, is a major contributor to lung cancer, thus prompting the first report of the Surgeon General’s Advisory Committee on Smoking and Health on January 11, 1964. Since that time, a multitude of studies have demonstrated that cigarettes produce more than 60 compounds that have carcinogenic potential. To combat these and other environmental carcinogens, normal cells employ the p53 tumor suppressor, which regulates cell growth and death to prevent cancer. Because p53 is considered a guardian against genomic insult, it is not surprising that it is one of the most frequently mutated genes in many cancers and lung cancer is no exception. In this issue, Gibbons and colleagues mark the 50th anniversary of the Surgeon General’s Report on Smoking and Health by reviewing the evidence of smoking, p53 mutations, and lung cancer. The cover shows an artistic representation of the percentage of hotspot p53 mutations in a human population of lung squamous cell carcinoma and adenocarcinoma. For additional insight and details, please see the article by Gibbons and colleagues on page 3.