# TABLE OF CONTENTS

**Acknowledgment to Supplement Reviewers** ................................................. 2638s

**Overview**

James L. Mulshine .................................................. 2639s

**Methods and Strategies in Lung Cancer Control**

Andre Castonguay .................................................. 2641s

**New Approaches to Treating Early Lung Cancer**

Jack A. Roth ......................................................... 2652s

**Application of Molecular Genetics to the Early Diagnosis and Screening of Lung Cancer**

Michael J. Birrer and Powel H. Brown .......................... 2658s

**Clinical Significance of ras Oncogene Activation in Human Lung Cancer**

Sjoerd Rodenhuis and Robert J. C. Slebos ......................... 2665s

**Primary Lung Tumors in Mice: An Experimentally Manipulable Model of Human Adenocarcinoma**

Alvin M. Malkinson .................................................. 2670s

**Induction and Spontaneous Regression of Intense Pulmonary Neuroendocrine Cell Differentiation in a Model of Preneoplastic Lung Injury**

Mary E. Sunday and Christopher G. Willett ......................... 2677s

**Bronchial and Pulmonary Carcinogenesis at Focal Sites in Dogs and Hamsters**

John R. Benfield and William G. Hammond ......................... 2687s

**Lung Cancer Detection and Prevention: Evidence for an Interaction between Smoking and Genetic Predisposition**


**DNA and Hemoglobin Adducts as Markers of Metabolic Activation of Tobacco-specific Carcinogens**

Peter G. Foiles, Sharon E. Murphy, Lisa A. Peterson, Steven G. Carmella, and Stephen S. Hecht .................................................. 2698s

**Chromosome Abnormalities in Human Non-Small Cell Lung Cancer**

Joseph R. Testa and Jill M. Siegfried .................................. 2702s

**Determination of Biomarkers for Intermediate End Points in Chemoprevention Trials**

Jin S. Lee, Scott M. Lippman, Waun K. Hong, Jae Y. Ro, Sun Y. Kim, Reuben Lotan, and Walter N. Hittelman .................................................. 2707s

**Considerations in Bringing a Cancer Biomarker to Clinical Application**

Melvyn S. Tockman, Prabodh K. Gupta, Norman J. Pressman, and James L. Mulshine .................................................. 2711s

**New Potential Chemopreventive Agents for Lung Carcinogenesis of Tobacco-specific Nitrosamine**

Fung-Lung Chung, Mark A. Morse, and Karin I. Eklind .................. 2719s

**Nitrosamine-induced Lung Carcinogenesis and Ca²⁺/Calmodulin Antagonists**

Hildegard M. Schüller .................................................. 2723s

**Urinary Levels of Bombesin-like Peptides in Asymptomatic Cigarette Smokers: A Potential Risk Marker for Smoking-related Diseases**

Samuel M. Aguayo, Talmadge E. King, Jr., Madeleine A. Kane, Karen M. Sherritt, Wayne Silvers, Louise M. Nett, Thomas L. Petty, and York E. Miller .................................................. 2727s

**Neuromedin B Is Present in Lung Cancer Cell Lines**

G. Giaccone, J. Battey, A. F. Gazdar, H. Oie, M. Draoui, and T. W. Moody .................................................. 2732s

**Growth of Small Cell Lung Cancer Cells: Stimulation by Multiple Neuropeptides and Inhibition by Broad Spectrum Antagonists in Vitro and in Vivo**

Tariq Sethi, Simon Langdon, John Smyth, and Enrique Rozengurt .................................................. 2737s

**The Correct Dose: Pharmacologically Guided End Point for Anti-Growth Factor Therapy**

James L. Mulshine, Noriyuki Shuke, Farhad Daghighian, Jorge Carrasquillo, Bimal Ghosh, Thomas Walsh, Ingailill Avis, James C. Reynolds, Frank Cuttitta, and Steven M. Larson .................................................. 2743s
Early Intervention in Cancer Using Monoclonal Antibodies and Other Biological Ligands: Micropharmacology and the "Binding Site Barrier"
John N. Weinstein and William van Osdol ................................................................. 2747s

The Clinical Evaluation of Cancer Chemoprevention Agents: Defining and Contrasting Phase I, II, and III Objectives
Gary E. Goodman ........................................................................................................... 2752s

Chemoprevention Strategies for Lung and Upper Aerodigestive Tract Cancer
Steven E. Benner, Scott M. Lippman, and Waun Ki Hong ............................................. 2758s

Preclinical Research in Early Lung Cancer: Breakout Group Report
M. Mabry, T. W. Moody, and S. B. Baylin ....................................................................... 2764s

Diagnostic Research: Breakout Group Report
James L. Mulshine and Melvyn S. Tockman .................................................................. 2766s

Intervention Approaches in Early Lung Cancer and Premalignant Disease: Breakout Group Report
Daniel C. Ihde and Scott Lippman .................................................................................. 2767s

List of Participants ........................................................................................................... 2769s

Acknowledgment to Supplement Reviewers

Stephen B. Baylin, Johns Hopkins University, Baltimore, Maryland
Michael Birrer, Biomarkers and Prevention Research Branch, NCI, Rockville, Maryland
Otis Brawley, Division of Cancer Prevention and Control, NCI, Rockville, Maryland
Frank Cuttitta, Biomarkers and Prevention Research Branch, NCI, Rockville, Maryland
David S. Ettinger, Johns Hopkins University School of Medicine, Baltimore, Maryland
Waun K. Hong, M. D. Anderson Cancer Center, Houston, Texas
Walter N. Hittelman, M. D. Anderson Cancer Center, Houston, Texas
Bruce E. Johnson, NCI-Navy Medical Oncology Branch, Bethesda, Maryland
John P. Jones, Biomarkers and Prevention Research Branch, NCI, Rockville, Maryland
Ilan Kirsh, NCI-Navy Medical Oncology Branch, Bethesda, Maryland
Barnett S. Kramer, Division of Cancer Prevention and Control, NCI, Bethesda, Maryland
Jin S. Lee, M. D. Anderson Cancer Center, Houston, Texas
Mack Mabry, Johns Hopkins University, Baltimore, Maryland
York E. Miller, University of Colorado, Denver, Colorado
Terry W. Moody, George Washington University, Washington, DC
James L. Mulshine, Biomarkers and Prevention Research Branch, NCI, Rockville, Maryland
Jack A. Roth, M. D. Anderson Cancer Center, Houston, Texas
Hildegard M. Schüller, University of Tennessee, Knoxville, Tennessee
Gail L. Shaw, Biomarkers and Prevention Research Branch, NCI, Rockville, Maryland
Jill M. Siegfried, University of Pittsburgh, Pittsburgh, Pennsylvania
Thomas J. Slaga, University of Texas Systems Cancer Center, Smithville, Texas
Mary E. Sunday, Harvard University, Boston, Massachusetts
Melvyn S. Tockman, Johns Hopkins School of Hygiene and Public Health, Baltimore, Maryland