Program Faculty.................................................................i
Sponsorship and CME Credit ..................................................ii
CME Activity Assessment and Evaluation ...............................iv

Summary Statement: Novel Agents in the Treatment of Lung Cancer: Advances in Epidermal Growth Factor Receptor-Targeted Agents
Thomas J. Lynch, Alex A. Adjei, Paul A. Bunn, Jr., Tim G. Eisen, Jeffrey Engelman, Glenwood D. Goss, Daniel A. Haber, John V. Heymach, Pasi A. Jänne, Bruce E. Johnson, David H. Johnson, Rogerio C. Lilenbaum, Matthew Meyerson, Alan B. Sandler, Lecia V. Sequist, Jeffrey Settleman, Kwok-Kin Wong, and Carol S. Hart .................................................................4365s

The Role of the ErbB Family Members in Non–Small Cell Lung Cancers Sensitive to Epidermal Growth Factor Receptor Kinase Inhibitors
Jeffrey A. Engelman and Lewis C. Cantley ..................................4372s

Her2-Targeted Therapies in Non–Small Cell Lung Cancer
Charles Swanton, Andy Futreal, and Tim Eisen ..........................4377s

Genomic Approaches to Lung Cancer
Roman K. Thomas, Barbara Weir, and Matthew Meyerson ...........4384s

“Oncogenic Shock”: Explaining Oncogene Addiction through Differential Signal Attenuation
Sreenath V. Sharma, Michael A. Fischbach, Daniel A. Haber, and Jeffrey Settleman ..................................................4392s

Mouse Models of Lung Cancer
Amit Dutt and Kwok-Kin Wong ................................................4396s

Epidermal Growth Factor Receptor Mutation Testing in the Care of Lung Cancer Patients
Lecia V. Sequist, Victoria A. Joshi, Pasi A. Jänne, Daphne W. Bell, Panos Fidias, Neal I. Lindeman, David N. Louis, Jeffrey C. Lee, Eugene J. Mark, Janina Longtime, Peter Verlander, Raju Kucherlapati, Matthew Meyerson, Daniel A. Haber, Bruce E. Johnson, and Thomas J. Lynch ..........4403s

Selecting Lung Cancer Patients for Treatment with Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitors by Immunohistochemistry and Fluorescence In situ Hybridization—Why, When, and How?
Rafal Dzidziuszko, Fred R. Hirsch, Marileila Varella-Garcia, and Paul A. Bunn, Jr. ..................................................4409s

Effect of Epidermal Growth Factor Receptor Tyrosine Kinase Domain Mutations on the Outcome of Patients with Non–Small Cell Lung Cancer Treated with Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitors
Pasi A. Jänne and Bruce E. Johnson ........................................4416s

Combining Targeted Agents: Blocking the Epidermal Growth Factor and Vascular Endothelial Growth Factor Pathways
Alan Sandler and Roy Herbst ........................................4421s

Strategies to Enhance Epidermal Growth Factor Inhibition: Targeting the Mevalonate Pathway
Jim Dimitroulakos, Ian A. Lorimer, and Glenwood Goss ..................4426s

The Evolving Role of Cetuximab in Non–Small Cell Lung Cancer
Rogerio C. Lilenbaum ..................................................4432s

Rationale for a Phase II Trial of Pertuzumab, a HER-2 Dimerization Inhibitor, in Patients with Non–Small Cell Lung Cancer
Bruce E. Johnson and Pasi A. Jänne ......................................4436s

Epidermal Growth Factor Receptor Inhibitors in Development for the Treatment of Non–Small Cell Lung Cancer
John V. Heymach, Monique Nilsson, George Blumenschein, Vassiliki Papadimitrakopoulou, and Roy Herbst ........................................4441s

Novel Combinations Based on Epidermal Growth Factor Receptor Inhibition
Alex A. Adjei ........................................................................4446s

Targeted Therapies in Combination with Chemotherapy in Non–Small Cell Lung Cancer
David H. Johnson .............................................................4451s