8:00 AM  Registration

8:30 AM  Welcome and Opening Remarks
Frank J. Slack, PhD
Director, HMS Initiative for RNA Medicine, Beth Israel Deaconess Medical Center
Shields Warren Mallinckrodt Professor, Departments of Pathology and Medicine, Harvard Medical School

Pier Paolo Pandolfi, MD, PhD
George C. Reisman Professor of Medicine and Professor of Pathology, Harvard Medical School
Director, Cancer Center at Beth Israel Deaconess Medical Center and the Cancer Research Institute at BIDMC
Chief, Division of Genetics, Department of Medicine, BIDMC
Co-Director, HMS Initiative for RNA Medicine

9:00 AM  Targeting telomerase via non-coding RNA biogenesis pathways
Suneet Agarwal, MD, PhD
Assistant Professor of Pediatrics, Harvard Medical School
Hematology/Oncology, Boston Children's Hospital

9:30 AM  Biomimetic Chemistry of RNAi for Human Therapeutics
Muthiah (Mano) Manoharan, PhD
Senior Vice President, Drug Discovery, Alnylam Pharmaceuticals

10:00 AM  RNP governing cell senescence
Myriam Gorospe, PhD
Chief, Laboratory of Genetics and Genomics
National Institute on Aging, NIH

10:30 AM  Break

11:00 AM  How lncRNAs shape chromatin structure to control gene expression
Mitchell Guttman, PhD
Professor of Biology, California Institute of Technology
Investigator, Heritage Medical Research Institute

11:30 AM  RNA medicine meets system biology: Optimizing next-generation drug development
Winston Hide, PhD
Co-director, Non-Coding RNA Precision Diagnostics and Therapeutics Core Facility
Associate Professor, Dept. Pathology Beth Israel Deaconess Medical Center
Principle Faculty, Harvard Stem Cell Institute

12:00 PM  Targeted Antisense Therapeutics for Upregulating Gene Expression
Adrian R. Krainer, PhD
St. Giles Foundation Professor, Cold Spring Harbor Laboratory

12:30 PM  Lunch

1:30 PM  Y RNAs—Tethers, tRNA mimics and triggers of autoimmunity
Sandra Wolin, MD, PhD  
Chief and Senior Investigator, RNA Biology Laboratory  
Head, Center for Cancer Research RNA Initiative  
National Cancer Institute

2:00 PM  Prevention of Progression in Multiple Myeloma  
Irene Ghobrial, MD  
Professor of Medicine, Harvard Medical School  
Director, Clinical Investigator Research Program, Dana-Farber Cancer Institute  
Director, Michele & Stephen Kirsch Laboratory

2:30 PM  Personalized microRNA Therapeutics in Cancer  
Frank J. Slack, PhD  
Director, HMS Initiative for RNA Medicine, Beth Israel Deaconess Medical Center  
Shields Warren Mallinckrodt Professor, Departments of Pathology and Medicine, Harvard Medical School

3:00 PM  Break & Speaker Photo

3:30 PM  Correction of Duchenne Muscular Dystrophy by Gene Editing  
Eric Olson, PhD  
Annie and Willie Nelson Professor of Stem Cell Research  
Pogue Distinguished Chair in Research on Cardiac Birth Defects  
The Robert A. Welch Distinguished Chair in Science  
Department of Molecular Biology, UT Southwestern Medical Center

4:00 PM  Enhancing Genome Editing with New Cas9s and Guide/Donor Engineering  
Eric Sontheimer, PhD  
Chair, RNA Therapeutics Institute  
Professor of Biochemistry and Molecular Pharmacology  
Gretchen Stone Cook Chair of Biomedical Sciences  
University of Massachusetts Medical School  
Investigator, Howard Hughes Medical Institute

4:30 PM  RNA-mediated DNA & RNA editing (of junk DNA)  
George Church, PhD  
Robert Winthrop Professor of Genetics, Harvard Medical School  
Professor of Health Sciences and Technology, Harvard and MIT  
Founding Core Faculty & Lead, Synthetic Biology, Wyss Institute at Harvard University

5:00 PM  Closing Remarks  
Richard I. Gregory, PhD  
Principal Investigator, The Stem Cell Program in the Division of Hematology/Oncology, Boston Children’s Hospital  
Principal Faculty Member, The Harvard Stem Cell Institute  
Professor, Departments of Biological Chemistry and Molecular Pharmacology and Pediatrics, HMS  
Co-Director, HMS Initiative for RNA Medicine

5:15 PM  Reception