Karen Adelman
Harvard Medical School

Dr. Adelman is a Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. Her research revealed that a majority of metazoan gene regulation occurs during early transcription elongation, through controlled pausing of RNA polymerase II. Her recent findings that pause release is a key determinant of gene activity in response to developmental and environmental factors has provided new insights into signal-responsive gene expression and its perturbation in disease states.

Scott Armstrong
Dana-Farber Cancer Institute & Harvard Medical School

Dr. Armstrong is Chair of the Department of Pediatric Oncology at Dana-Farber Cancer Institute and the David G. Nathan Professor of Pediatrics at Harvard Medical School. His lab focuses on stem cell like properties in cancer and chromatin-based control of gene expression in cancer. This work has led to several novel insights into the origins of leukemia, and has prompted the development of new therapies that are now being tested in adults and children. Dr. Armstrong received his MD and PhD from the University of Texas Southwestern Medical School in Dallas, Texas. He performed his residency and fellowship in pediatric hematology/oncology at Children’s Hospital Boston, the Dana Farber Cancer Institute, and Harvard Medical School. His work has been recognized by a number of awards including the Paul Marks Prize for Cancer Research from Memorial Sloan Kettering Cancer Center, the E. Mead Johnson Award for Outstanding Research in Pediatrics and the Dameshek Prize from the American Society of Hematology.

Cheryl Arrowsmith
University of Toronto

Cheryl Arrowsmith is a Senior Scientist at the Princess Margaret Cancer Centre and Professor in the Department of Medical Biophysics at the University of Toronto, where she holds a Canada Research Chair in Structural Genomics. She received a Ph.D. in chemistry from the University of Toronto and carried out postdoctoral research at Stanford University in the area of protein NMR spectroscopy. Dr. Arrowsmith’s research focuses on structural and chemical biology of chromatin and epigenetic regulatory factors especially as relates to cancer. Dr. Arrowsmith is the Chief Scientist of the Toronto Node of the Structural Genomics Consortium (SGC), a multinational public-private partnership that supports the discovery of new medicines through protein-based open access research. She leads the SGC’s program to develop chemical probes to chromatin regulators for target validation.

Jay Bradner
Novartis

Dysregulation of gene control is hallmark characteristic of cancer, and individual tumor types are commonly dependent on discrete gene control factors. Research in clinical cancer genetics and functional cancer biology has validated a still growing list of compelling transcriptional addictions with immediate therapeutic relevance. Threatening the clinical impact of these findings is the persistent challenge in the development of direct-acting chemical inhibitors of transcription factors. Transcription factors (TFs) challenge coordinated efforts in ligand discovery, as they
often function via protein-protein interactions mediated by large interfacial domains that lack the characteristic features of addressable hydrophobic pockets. Further, many TFs exhibit a multidomain structure, often further complicated by intrinsic disorder or limited biochemical characterization. It is then not always clear which domain to target, and commonly the ligandable domain is not responsible for the tumor-associated phenotype. We have therefore undertaken a chemical strategy to create bifunctional ligands for TFs that recruit E3 ubiquitin ligases, so as to degrade undruggable protein targets. Progress on this research will be presented.

Matthias Geyer
University of Bonn

Matthias Geyer joined the Institute of Innate Immunity at the University of Bonn in 2014, where he established a research department in structural immunology. His research focuses on the regulation of eukaryotic transcription by Cyclin-dependent kinases, the activation and formation of the inflammasome, and the remodeling of the actin cytoskeleton. He is a core member of the excellence cluster ImmunoSensation and appointed to the cluster chair for Structural Immunology. His laboratory employs biochemical methods to determine protein–protein interactions as well as the interaction to lipids, nucleic acids and small molecular ligands and X-ray crystallography, NMR spectroscopy, and electron microscopy for the structural analysis of protein-ligand complexes. Dr. Geyer spent 12 years as an independent research group leader within the Max Planck Society, working at the Max Planck Institute of Molecular Physiology and the Research Center caesar.

Jolanta Grembecka
University of Michigan

Dr. Jolanta Grembecka is an Associate Professor in the Department of Pathology, University of Michigan. Her research has been focused on development of small molecule inhibitors of proteins involved in oncogenesis, with a particular focus on leukemia related proteins. Recent work from Dr. Grembecka’s laboratory has been dedicated to identify and develop small molecules targeting the protein-protein interaction between menin and MLL as a new targeted therapy for acute leukemia patients with translocations of the MLL gene. Her laboratory has developed the first small molecule inhibitors of the menin-MLL interaction, which they successfully optimized resulting in very potent compounds that are currently being translated to clinical studies. Her laboratory is also pursuing development of new targeted therapies for hematologic and solid cancers by blocking novel epigenetic targets, including histone methyltransferases and ubiquitin ligases.

Saptarsi Haldar
Gladstone Institutes & University of California San Francisco

Saptarsi M. Haldar, M.D. is an Associate Investigator at Gladstone Institute of Cardiovascular Disease and Associate Professor of Medicine at University of California San Francisco (UCSF). He received his B.S. from Cornell University and his M.D. from Johns Hopkins University School of Medicine. He trained in Internal Medicine at Johns Hopkins followed by Fellowship in Cardiovascular Disease at Brigham and Women’s Hospital, Harvard Medical School. Prior to joining Gladstone/UCSF, he was on faculty at Case Western Reserve University School of Medicine. Dr. Haldar is a physician-scientist who has made important discoveries in the areas of cardiac, skeletal muscle and metabolic biology. His laboratory seeks to gain a deep understanding of how muscle cells control gene expression and how these processes go awry
in disease. His work has elucidated therapeutically relevant insights for a broad range of conditions such as heart failure, aortic aneurysms and muscular dystrophy. Recently, Dr. Haldar’s laboratory has discovered that a subset of transcription co-activators, including BRD4 and CDK7, are druggable targets in heart failure pathogenesis. Dr. Haldar is a practicing general adult cardiologist at UCSF who devotes considerable interest and effort to teach/mentor, in the classroom, wards and laboratory settings. In addition to his academic efforts, Dr. Haldar is a scientific co-founder of Tenaya Therapeutics, a San Francisco based company launched in 2016 whose goal is to develop novel therapies for heart failure.

Rudolf Jaenisch
Whitehead Institute & MIT

Rudolf Jaenisch is a Founding Member of the Whitehead Institute for Biomedical Research and a Professor of Biology at the Massachusetts Institute of Technology. He is a pioneer in making transgenic mice, some of which have produced important advances in understanding cancer, neurological and connective tissue diseases, and developmental abnormalities and has explored basic questions such as the role of DNA modification, genomic imprinting and X chromosome inactivation. The laboratory is renowned for its expertise in cloning mice and in studying the myriad factors that contribute to the success and failure cellular reprogramming. More recently the lab has focused on using the iPS cell system to study diseases such as Alzheimer’s, Parkinson’s and Autism.

Dr. Jaenisch is a Member of the National Academy of Sciences and the International Society for Stem Cell Research. In 1996 he was honored with the Boehringer Mannheim Molecular Bioanalytics Prize, in 2001 was the recipient of the first ever Peter Gruber Foundation Award in Genetics, in 2002 won the Robert Koch Prize for Excellence in Scientific Achievement, the March of Dimes Prize in 2015 and in 2011 was a recipient of the United States National Medal of Science. In 2014 he was president of the ISSCR.

Eric Olson
Syros Pharmaceuticals

Eric has more than 25 years of experience in the life sciences industry with a proven record of translating scientific discoveries into breakthrough medicines. Prior to Syros, he was Research Vice President for respiratory diseases at Vertex Pharmaceuticals, spearheading the company’s efforts in cystic fibrosis (CF). During his 12 years there, he was instrumental in bringing KALYDECO, the first CF treatment resulting from the discovery of the CF gene to patients, leading the research, development and commercial teams. In addition to his work at Vertex, Eric has also held positions as the Director of Antibacterials and Molecular Sciences departments at Warner-Lambert/Pfizer, as well as a research scientist focused on gene expression systems with The Upjohn Company. Eric earned his B.S. in microbiology from the University Minnesota and a Pd.D. in microbiology and immunology from the University of Michigan. He is published in more than 40 academic journals.

Olena Barbash
GlaxoSmithKlein

Olena Barbash, Ph.D., is GSK Fellow and Scientific Director in Cancer Epigenetics DPU. She received her graduate degree in Biomedical Sciences from University of New Mexico and did her postdoctoral training in Cancer Biology at University of Pennsylvania. She is currently leading the biology for PRMT5 and BET programs.
Aviv Regev
Broad Institute & MIT

Aviv Regev, computational and systems biologist, is a professor of biology at MIT, a Howard Hughes Medical Institute Investigator, the Chair of the Faculty and the director of the Klarman Cell Observatory and Cell Circuits Program at the Broad Institute of MIT and Harvard, and co-chair of the organizing committee for the international Human Cell Atlas project.

She studies the molecular circuitry that governs the function of mammalian cells in health and disease and has pioneered many leading experimental and computational methods for the reconstruction of circuits, including in single-cell genomics.

Regev is a recipient of the NIH Director’s Pioneer Award, a Sloan fellowship from the Sloan Foundation, the Overton Prize from the International Society for Computational Biology (ISCB), the Earl and Thressa Stadtman Scholar Award from the American Society of Biochemistry and Molecular Biology, and the ISCB Innovator Award, and she is a ISCB Fellow (2016).

Regev received her M.Sc. from Tel Aviv University, studying biology, computer science, and mathematics in the Interdisciplinary Program for the Fostering of Excellence. She received her Ph.D. in computational biology from Tel Aviv University.

Jussi Taipale
Karolinska Institutet, University of Helsinki & Cambridge University

Professor Jussi Taipale obtained his Ph.D. at the University of Helsinki in 1996 and continued at the University of Helsinki for his post doctorate before moving to Johns Hopkins University (Baltimore, MD, USA). Since 2003, he has headed an independent research laboratory focusing on systems biology of growth control and cancer. He has published 91 articles of which sixteen are in the most prestigious scientific journals (Nature, Science and Cell), won numerous awards and grants (e.g., Anders Jahre Prize for Young Researchers, EMBO Young Investigator, ERC Advanced Grant and Vetenskapsrådet Distinguished Professor Program (Rådsprofessor)) and is internationally recognized as a leader in the field of genomics and systems biology.

Leonard I. Zon, M.D.
Boston Children’s Hospital & Harvard Medical School

Dr. Zon is the Grousbeck Professor of Pediatric Medicine at Harvard Medical School, Investigator at Howard Hughes Medical Institute, and Director of the Stem Cell Program at Boston Children’s Hospital. Dr. Zon received his B.S. in chemistry and natural sciences from Muhlenberg College (1979) and his M.D. from Jefferson Medical College (1983). He subsequently did an internal medicine residency at New England Deaconess Hospital (1986) and a fellowship in medical oncology at Dana-Farber Cancer Institute (1989). His postdoctoral research was in Stuart Orkin’s laboratory (1990). Dr. Zon is internationally-recognized for his pioneering work in stem cell biology and cancer genetics. He has been the preeminent figure in establishing zebrafish as an invaluable genetic model for the study of the blood and hematopoietic development. He is founder and former president of the International Society for Stem Cell Research and chair of the Executive Committee of the Harvard Stem Cell Institute. In 2005, he completed a term as President of the American Society for Clinical Investigation. That same year, Dr. Zon was elected to the Institute of Medicine of the National Academies. In 2008, Dr. Zon was elected to the American Academy of Arts & Sciences. In 2010, Dr. Zon was awarded the E. Donnall Thomas Lecture and Prize from American Society of
Hematology. In 2013, Dr. Zon received the ISEH Donald Metcalf Lecture Award. Other recent awards include the 2014 Boston Children’s Hospital Post-Doctoral Association Mentoring Award and the National Cancer Institute’s Alfred G. Knudson Award (2015).