

Oral Program

Sunday, June 26, 2016

11.00-14:30 **Registration** | Room: Krumlovsky Atrium

Opening & Session 1: Tuning Development | Rooms A-D

Session chair: François Spitz

14:30-14:45 Welcome & Introduction

14:45-15:30 **Keynote Speaker:** Molecular pathways of muscle development, disease and regeneration [K01]
Eric Olson, *University of Texas Southwestern Medical Center, USA*

15:30-16:00 Transcriptional regulation of heart development and chromatin structure [INV01]
Benoit G. Bruneau, *Gladstone Institute of Cardiovascular Disease, USA, University of California, San Francisco, USA*

16:00-16:30 **Refreshment Break** | Room: Krumlovsky Atrium

16:30-17:00 Changing transcriptional control of cell fate through signaling pathways [INV02]
Leonard Zon, *Boston Children's Hospital, USA, Dana Farber Cancer Institute, USA*

17:00-17:15 Blast from the past—how skeletal progenitor transcriptomes are shaped by embryonic origin [ST01]
P. Tschopp*, C.J. Tabin, *Harvard Medical School, USA*

17:15-17:30 Spatial segregation of Sox2 and Nanog drives local extinction of pluripotency in postimplantation mouse embryos [ST02]
F. Wong, I. Szczerbinska, F. Halbritter, N.P. Mullin, A. Tsakiridis, F. Wymeersch, V. Wilson, I. Chambers*, *University of Edinburgh, UK*

17:30-18:00 Visualizaton and evolution of transcriptional enhancers in animal development [INV03]
Michael Levine, *Princeton University, USA*

18.00-19.00 **Welcome Reception** | Room: Krumlovsky Atrium

19:00-20:30 **Walking Tour (Ticket holders only)**

Monday, June 27, 2016

07:30-08:30 **Registration** | Room: Krumlovsky Atrium

Session 2: Transcriptional Modulations | Rooms A-D

Session chair: Alexander Stark

08:30-09:00 Single cell mapping of developmental trajectories [INV04]
Dana Pe'er, *Columbia University, USA*

09:00-09:15 An ancient yet flexible *cis*-regulatory architecture allows localized hedgehog tuning by *patched/Ptch1* [ST03]
S. Barolo*¹, D.S. Lorberbaum¹, A.I. Ramos¹, K.A. Peterson³, J.A. Kassis², B.L. Allen¹, A.P. McMahon⁴ et al,
¹*University of Michigan Medical School, USA*, ²*NIH/NICHD, USA*, ³*The Jackson Laboratory, USA*, ⁴,
University of Southern California Keck School of Medicine, USA

09:15-09:30 Chemical inhibition of chromatin-remodeling dependent genes protects against inflammation-induced death [ST04]
A. Rialdi, L. Campisi, I. Marazzi*, *Icahn School of Medicine, USA*

09:30-10:00 Role of PARP-1 in the regulation of chromatin structure and gene expression [INV05]
W. Lee Kraus, *University of Texas Southwestern Medical Center, USA*

10:00-10:15 Inhibition of cyclin-dependent kinases 12/13 in cancers marked by genomic instability [ST05]
M. Krajewska¹, D. Day², T. Zhang¹, N. Kwiatkowski¹, N. Moore¹, E. Chipumuro¹, A. Greenleaf³, R. Young²,
N. Gray¹, R.E. George*¹, ¹*Harvard Medical School, USA*, ²*Massachusetts Institute of Technology, USA*,
³*Duke University Medical Center, USA*

10:15-10:45 **Refreshment Break** | Room: Krumlovsky Atrium

10:45-11:15 Enhancer malfunction in cancer [INV06]
Ali Shilatifard, *Northwestern University Feinberg School of Medicine, USA*

11:15-11:30 The pause-inducing factor Spt5 is globally required for coding and non-coding RNA synthesis by RNA polymerase II [ST15]
T. Henriques*¹, B. Scruggs¹, R. A. Flynn², G. W. Muse¹, M. O. Inouye¹, A. Burkholder¹, H. Y. Chang², D. Fargo¹, K. Adelman¹, ¹*NIEHS/NIH, USA*, ²*Stanford University School of Medicine, USA*

11:30-11:45 Transcription elongation factors represent in vivo cancer dependencies in glioblastoma [ST06]
T.E. Miller^{*1,2}, B.B. Liao³, L.C. Wallace², A.R. Morton¹, J.J. Morrow¹, J. Zuber⁴, P.C. Scacheri¹, B.E. Bernstein^{3,5}, P.J. Tesar¹, J.N. Rich² et al, ¹Case Western Reserve University Medical School, USA, ²Cleveland Clinic Lerner Research Institute, USA, ³Harvard Medical School, USA, ⁴Research Institute of Molecular Pathology, Austria, ⁵Broad Institute, USA

11:45-12:15 How BET inhibitors activate HIV transcription [INV07]
Melanie Ott, *Gladstone Institute of Virology and Immunology, USA, University of California, San Francisco, USA*

12:15-13:15 **Lunch | Room: Krumlovsky Atrium**

13.15-15.00 **Poster Session I | Room: Krumlovsky Atrium**

Session 3: Regulation at a Distance | Rooms A-D

Session chair: Julie Ahringer

15:00-15:30 Mechanisms of olfactory receptor gene regulation [INV08]
Stavros Lomvardas, *Columbia University, USA*

15:30-15:45 The mysterious absence of plant enhancers: Complementary approaches for enhancer discovery [ST07]
M.W. Dorrity^{*1}, J.C. Cuperus¹, S. Fields^{1,2}, C. Queitsch¹, ¹University of Washington, USA, ²Howard Hughes Medical Institute, USA

15:45-16:00 Molecular mechanisms organizing and regulating long-distance relationships [ORG02]
François Spitz, *Institut Pasteur, France*

16:00-16:30 Regulatory variation and human diseases [INV09]
Marcelo Nobrega, *University of Chicago, USA*

16:30-17:00 **Refreshment Break | Room: Krumlovsky Atrium**

17:00-17:30 Transcriptional switching by the Wnt enhanceosome [INV10]
Mariann Bienz, *MRC Laboratory of Molecular Biology, UK*

17:30-17:45 Evolutionary loss of function and in vivo resurrection of a distant-acting limb enhancer in snakes [ST08]
E.Z. Kvon^{*1}, O.K. Kamneva³, U.S. Melo¹, I. Barozzi¹, M. Osterwalder¹, E.M. Rubin^{1,2}, D.D. Dickel¹, L.A. Pennacchio^{1,2}, A. Visel^{1,2} et al, ¹Lawrence Berkeley National Laboratory, USA, ²U.S. Department of Energy Joint Genome Institute, USA, ³Stanford University, USA

17:45-18:00 Lamin C directs genome reorganization in early G1 [ST09]
X. Wong, T.R. Luperchio, K.L. Reddy^{*}, *Johns Hopkins University, SOM, USA*

18:00-18:30 Genome regulation by Polycomb proteins, epigenetic inheritance and 3D chromosome folding [INV11]
Giacomo Cavalli, *CNRS, France*

19.00-22.00 **Meet the Speakers Dinner (Ticket holders only)**

Tuesday, June 28, 2016

Session 4: Encoding Memory | Rooms A-D

Session chair: Benoit G. Bruneau

09:00-09:30 Epigenetic and metabolic regulation of aging [INV12]
Anne Brunet, *Stanford University, USA*

09:30-09:45 Transcriptional regulators compete with nucleosomes post-replication [ST10]
S. Ramachandran^{*}, S. Henikoff, *Fred Hutchinson Cancer Research Center, USA*,

09:45-10:15 Links between genome organization, germline chromatin, and transcription regulatory regions [INV13]
Julie Ahringer, *University of Cambridge, UK*

10:15-10:30 Competition between histones and transcription complex assembly regulates the onset of transcription in zebrafish embryos [ST11]
S.R. Joseph¹, M. Palfy¹, L. Hilbert^{1,2}, M. Kumar¹, A. Shevchenko¹, V. Zaburdaev², N.L. Vastenhouw^{*1}, ¹MPI-CBG, Germany, ²MPI-PKS, Germany

10:30-11:00 **Refreshment Break | Room: Krumlovsky Atrium**

- 11:00-11:30 Making faces: Gene regulatory principles underlying development, evolution and disease of the neural crest [INV14]
Joanna Wysocka, *Stanford University, USA*
- 11:30-11:45 Charge-abolishing mutations in *Cbx2* link an EM observation to homeotic phenotypes in mice [ST12]
M.S. Lau^{*1,2}, M.G. Schwartz¹, S. Marr², S. Kundu², P. Wang², A.J. Savol², R. Sadreyev², C. Tabin¹, R.E. Kingston^{1,2}, ¹*Harvard Medical School, USA*, ²*Massachusetts General Hospital, USA*
- 11:45-12:15 Chromatin regulators as cancer dependencies [INV15]
Christopher Vakoc, *Cold Spring Harbor Laboratory, USA*

12.15-13.15 **Lunch** | Room: Krumlovsky Atrium

12.15-13.15 **Q&A with the Editors** | Room: Rooms A-D

13.15-15.15 **Poster Session II** | Room: Krumlovsky Atrium

Session 5: Non-coding Potential | Rooms A-D

Session chair: Karen Adelman

- 15:15-15:45 **Keynote Speaker:** X-chromosome inactivation: The epigenetic dynamics of gene silencing and escape [K02]
Edith Heard, *Institut Curie, France*
- 15:45-16:00 The function of transposable elements during development of the early mouse embryo [ST13]
J.W. Jachowicz^{*1}, M.E. Torres-Padilla², ¹*Helmholtz Zentrum München, Germany*, ²*Institut de Génétique et de Biologie Moléculaire et Cellulaire, France*
- 16:00-16:30 Tandem zinc finger proteins: Genome defenders and drivers of mammalian adaptations [INV16]
Todd Macfarlan, *NIH/NICHD, USA*

16:30-17:00 **Refreshment Break** | Room: Krumlovsky Atrium

- 17:00-17:15 The TFIIA-L paralog Moonshiner drives transcription of heterochromatin to generate piRNA precursors in *Drosophila* [ST14]
P.R. Andersen^{*}, L. Tirian, J. Brennecke, *IMBA - Institute of Molecular Biotechnology, Austria*
- 17:15-17:45 Exploring translation outside of canonical protein coding region with ribosome profiling [INV17]
Jonathan Weissman, *University of California, San Francisco, USA*
- 17:45-18:00 Decoding transcriptional regulation [ORG03]
Alexander Stark, *Research Institute of Molecular Pathology, Austria*

18:00-18:15 **Closing Remarks**



Presentation of the Joy Cappel Young Investigator Award by Dan Kenney from Rockland Immunochemicals, Inc

Poster Prize