

Oral Program

Sunday, November 6, 2016

12:00-14:00 Registration | Level 3, Great Hall Foyer

14:00-15:00 Opening | Great Hall AB

14:00-14:10 Cell Symposium: Functional RNAs 2016 co-chairs

Welcome and Introduction

14:10-15:00 Yi-Gong Shi, *Tsinghua University, China*

Structural basis of pre-mRNA splicing [K01]

Session I: Small RNAs | Great Hall AB

Chair: John Pham, *Molecular Cell, USA*

15:00-15:30 Dinshaw Patel, *Sloan-Kettering Institute, USA*

Structural biology of RNA-mediated gene regulation [INV01]

15:30-16:00 Ramesh Pillai, *European Molecular Biology Laboratory Grenoble, France*

Biogenesis of germline small RNAs required for transposon suppression [INV02]

16:00-16:30 Refreshments | Great Hall C

16:30-17:00 Xuemei Chen, *University of California, USA*

Endoplasmic reticulum and microRNAs [INV03]

17:00-17:30 Witold Filipowicz, *Friedrich Miescher Institute for Biomedical Research, Switzerland*

³ Mechanism and regulation of miRNA-mediated repression in cultured cells and in mouse retina² [INV04]

17:30-17:45 [O01] Defining mouse pachytene piRNA function in vivo

P.H. Wu^{*1,2}, Y. Fu¹, K. Cecchini^{1,2}, Z. Weng¹, P.D. Zamore^{1,2}, ¹University of Massachusetts Medical School, USA; ²Howard Hughes Medical Institute, USA

17:45-19:00 Drinks Reception | Great Hall C

Monday, November 7, 2016

Session II: lncRNAs | Great Hall AB

Chair: Erwei Song, *Sun Yat-sen University, China*

09:00-09:30 Ling-Ling Chen, *Institute of Biochemistry and Cell Biology, China*

Sno-processed long noncoding RNAs [INV05]

09:30-10:00 Irene Bozzoni, *University of Rome, Italy*

The control of muscle differentiation: from coding to noncoding RNA and back [INV06]

10:00-10:15 [O02] PKR is activated by mitochondrial ncRNAs and serves as a coordinator of mitochondrial-nuclear communication

Y. Kim^{*1,2}, J. Park^{1,3}, B. Kim^{1,3}, V.N. Kim^{1,3}, ¹Institute for Basic Science, Republic of Korea; ²Korea Advanced Institute of Science and Technology, Republic of Korea; ³Seoul National University, Republic of Korea

10:15-10:45 Refreshments | Great Hall C

10:45-11:00 [O03] Competing action of XIST and XACT long noncoding RNAs in the control of X chromosome activity during human early development

C. Vallot¹, C. Patrat^{1,2}, C. Huret¹, A.J. Collier^{4,5}, M. Casanova¹, T.M.L. Ali¹, M. Tosolini^{1,6}, N. Frydman^{7,8}, E. Heard², P.J. Rugg-Gunn^{4,5}, C. Rougeulle^{*1}, ¹Université Paris Diderot, France; ²PSL Research University, France; ³Bichat-Claude Bernard Hospital, France; ⁴The Babraham Institute, UK; ⁵University of Cambridge, UK; ⁶INRA, UK; ⁷Université Paris-Sud, UK; ⁸Hôpital Antoine Bécélère, France

11:00-11:30 Howard Chang, *Stanford University, USA*

Genome regulation by long noncoding RNAs [INV07]

11:30-11:45 [O04] MicroRNA-regulated quaking controls epithelial cell plasticity and widespread alternative RNA splicing

P.A. Gregory^{*1,2}, C.A. Phillips^{1,2}, K.A. Pillman^{1,2}, J. Toubia^{1,2}, S. Roslan^{1,2}, S.J. Conn^{1,2}, L.A. Selth³, B.G. Hollier⁴, D.M. Lawrence^{1,2}, G.J. Goodall^{1,2}, ¹Centre for Cancer Biology, Australia; ²University of South Australia, Australia; ³The University of Adelaide, Australia; ⁴Queensland University of Technology, Australia

12:00-13:00 Lunch | Great Hall C

13:00-15:00 Poster Session I | Great Hall C

Session III: Genome Regulation | Great Hall AB

Chair: Ling-Ling Chen, *Institute of Biochemistry and Cell Biology, China*

- 15:00-15:30** **Michael G. Rosenfeld**, *University of California, San Diego, USA*
Prerequisite marking of cell-type-specific enhancers and ligand-dependent distributed super-enhancers [INV08]
- 15:30-16:00** **Sung Hee Baek**, *Seoul National University, Korea*
Epigenetic regulation of autophagy and cancer [INV09]
- 16:00-16:15** **[O05] Piwi silences transposon transcription by regulating chromatin compaction**
K. Saito^{*1}, Y.W. Iwasaki¹, K. Murano¹, H. Ishizu², A. Shibuya¹, Y. Iyoda¹, M.C. Siomi², H. Siomi¹, ¹*Keio University School of Medicine, Japan*; ²*Graduate School of Science, The University of Tokyo, Japan*

16:15-16:45 Refreshments | Great Hall C

- 16:45-17:15** **Ben Blencowe**, *University of Toronto, Canada*
Title unavailable at time of print [INV10]
- 17:15-17:45** **Chuan He**, *The University of Chicago, USA*
Reversible RNA methylation in gene expression regulation [INV11]
- 17:45-18:00** **[O06] Sequencing RNA modifications in the human transcriptome**
X. Li, X. Xiong, S. Ma, C. Yi,* *Peking University, China*
- 19:00-22:00** **Conference Gala Dinner - Pearl River Night Cruise** (ticket holders only)

Tuesday, November 8 2016**Session IV: Therapeutic Approaches | Great Hall AB**Chair: Sung Hee Baek, *Seoul National University, Korea*

- 09:00-09:30** **Judy Lieberman**, *Harvard Medical School, USA*
The silent treatment: a progress report on siRNA therapeutics [INV12]
- 09:30-10:00** **Erwei Song**, *Sun Yat-Sen Memorial Hospital, China*
NKILA lncRNA promotes AICD of tumor-specific CTLs in breast cancer and contributes to tumor immune evasion [INV13]
- 10:00-10:15** **[O07] RNA m⁶A methylation regulates the UV-induced DNA damage response**
Y. Xiang^{1,2}, B. Laurent^{*1,2}, C-H. Hsu^{1,2}, S. Nachtergaele^{3,4}, Z. Lu^{3,4}, W. Sheng^{1,2}, C. Xu^{1,2}, A. Jambhekar^{1,2}, C. He^{3,4}, Y. Shi^{1,2}, ¹*Boston Children's Hospital, USA*; ²*Harvard Medical School, USA*; ³*University of Chicago, USA*; ⁴*Howard Hughes Medical Institute, USA*

10:15-10:45 Refreshments | Great Hall C

- 10:45-11:15** **Nikolaus Rajewsky**, *Max Delbrück Centre for Molecular Medicine, Germany*
Knocking down circRNAs and reconstructing tissues from single cell sequencing data [INV14]
- 11:15-11:45** **Reuven Agami**, *The Netherlands Cancer Institute, the Netherlands*
Title unavailable at time of print [INV15]
- 11:45-12:00** **[O08] A splicing factor SRSF9 shapes the RNA editing landscape in mammals by selective repression of ADAR2-mediated editing of protein-coding sites**
R. Shanmugam^{1,2}, H. Srinivasan¹, K.I. Liu², C.W.A. Woo², M.H. Tan^{*1,2}, ¹*Nanyang Technological University, Singapore*; ²*Genome Institute of Singapore, Singapore*

12:00-13:00 Lunch | Great Hall C**13:00-15:00** Poster Session II | Great Hall C**Session V: CRISPR/Cas9 and emerging technology | Great Hall AB**Chair: Witold Filipowicz, *Friedrich Miescher Institute for Biomedical Research, Switzerland*

- 15:00-15:30** **Jeff Chao**, *Friedrich Miescher Institute for Biomedical Research, Switzerland*
TRICK or TREAT: imaging the lives of mRNAs in space and time [INV16]
- 15:30-16:00** **Matt Simon**, *Yale University, USA*
Tracking cellular RNA with covalent chemistry [INV17]
- 16:00-16:30** **Erik Sontheimer**, *University of Massachusetts Medical School, USA*
Genetic interference and genome editing by *Neisseria meningitidis* Cas9 [INV18]

16:30-17:00 Refreshments | Great Hall C

- 17:00-17:30** **Jinsoo Kim**, *Seoul National University, Korea*
Genome editing in human stem cells, animals, and plants [INV19]
- 17:30-18:20** **Craig Mello**, *University of Massachusetts Medical School, USA*
Title unavailable at time of print [K02]

18:20-18:35 Closing | Great Hall AB

- 18:20-18:35** **Witold Filipowicz**, *Friedrich Miescher Institute for Biomedical Research, Switzerland*
Closing remarks