

Conference Program

Monday February 9

- 10:00 - 12:00 Registration
- 12:00 - 13:30 Lunch
- 13:30 - 13:45 Welcome & Introductions
Neil Clarke & Abcam

Session: Histone modification and disease

Chair: Jason Lieb

- 13:45 - 14:15 Tony KouzaridesPage 14
Chromatin modifying enzymes: their function and role in cancer
- 14:15 - 14:45 Sung Hee BaekPage 15
Beyond histone code: chromatin dynamics in cancer metastasis
- 14:45 - 15:15 Sam El-OstaPage 16
Transient stimuli can cause persistent histone changes specifically mediated by the Set7 histone methyltransferase
- 15:15 - 15:30 Abcam

Afternoon Tea

Session: Chromosome organization

Chair: Edwin Cheung

- 16:00 - 16:30 Wouter de LaatPage 17
Genome organization uncovered by 4C technology
- 16:30 - 17:00 Yijun RuanPage 18
The human chromatin interactome for transcription regulation
- 17:00 - 17:30 Yikang RongPage 19
Loss of the histone variant H2A.Z restores capping to “checkpoint defective” telomeres in *Drosophila*
- 17:30 - 19:00 Poster session and welcome drinks reception

Tuesday February 10

07:30 - 09:00 Breakfast in Brunch Restaurant

Session: Histone modification and transcription I

Chair: John Lis

09:00 - 09:30 Xiang-Dong FuPage 20
Enhancer Hubs for Regulated Gene Expression

09:30 - 10:00 Xing Wang DengPage 21
High resolution mapping of epigenetic modifications of the rice genome uncovers interplay between DNA methylation, histone methylation and gene expression

10:00 - 10:30 Antonin MorillonPage 22
Set1-dependent H3K4 dimethylation deposited by cryptic transcription attenuates promoter activation in *S. cerevisiae*

Morning Coffee

Session: RNA-mediated epigenetic control

Chair: Anne Ferguson-Smith

11:00 - 11:30 Shiv GrewalPage 23
Epigenetic genome control by RNAi and transposon-derived proteins

11:30 - 12:00 Fred BergerPage 24
Epigenetic reprogramming during plant gametogenesis

12:00 - 12:30 Uptal BhadraPage 25
dsRNA induces recruitment of functionally interacting Polycomb and PIWI proteins to establish TGS in *Drosophila* embryos

Lunch & Posters

Session: Histone modification and transcription II
Chair: Fred Berger

- 14:00 - 14:30 John LisPage 26
The rapid and locus-wide transition of a gene from a
potentiated to a highly activated state *in vivo*
- 14:30 - 15:00 Takashi ItoPage 27
Histone modification and transcriptional regulation
- 15:00 - 15:20 Zu-Wen SunPage 28
Modulation of chromatin dynamics by histone ubiquitination
- 15:20 - 15:40 Adone Mohd-SaripPage 29
dKDM2 couples histone H2A ubiquitylation to histone H3
demethylation during Polycomb group silencing

Afternoon Tea

Session: Nucleosome and chromatin structure
Chair: Neil Clarke

- 16:10 - 16:40 Jason LiebPage 30
An atlas of open chromatin spanning diverse human cell types
in health and disease
- 16:40 - 17:10 Jonathan WidomPage 31
The genomic code for nucleosome positioning
- 17:10 - 17:30 Zhiguo ZhangPage 32
Histone acetylation regulates DNA replication-coupled
nucleosome assembly
- 17:30 - 19:00 Poster session

Wednesday February 11

07:30 - 09:00 Breakfast in Brunch Restaurant

Session: Regulation of the stem cell state I

Chair: Neil Clarke

09:00 - 09:30 Huck Hui NgPage 33
Deciphering and reconstruction of embryonic stem cell transcriptional regulatory network

09:30 - 10:00 Kristian HelinPage 34
Histone methylation at the center of cellular differentiation and disease

10:00 - 10:30 Marc MeneghiniPage 35
Jumonji-family histone demethylases control developmental timing during yeast sporulation

10:30 - 10:40 Abcam
 Morning Coffee

11:00 - 11:30 Anne-Ferguson SmithPage 36
Genomic imprinting: a model for dissecting the epigenetic control of gene activity and repression

11:30 - 12:00 En LiPage 37
Abstract unavailable

12:00 - 12:30 Jie DengPage 38
Single-molecule analysis of DNA methylation in induced pluripotent stem cells

Lunch & Posters

13.30 - 14.00 Buses depart for Biopolis

Session: Regulation of the stem cell state II

Chair: Larry Stanton

14:30 - 15:00 Eran MeshorerPage 39
Chromatin state and function in pluripotent embryonic stem cells

15:00 - 15:30 Peter Rugg-GunnPage 40
Bivalent histone domains are present in pluripotent cells of the early mouse embryo *in vivo* but not in all blastocyst-derived stem cell lines *in vitro*

15:30 - 16:00 Sheng DingPage 41
A chemical approach to pluripotency and reprogramming

Afternoon Tea

16:30 - 17:00 Maarten van LohuizenPage 42
Polycomb repressors controlling stem cell fate: implications for cancer and development

17:00 - 17:30 Azim SuraniPage 43
Noisy stem cells: dynamic equilibrium and heterogeneity in pluripotent stem cells

Closing remarks

Introduction to Genome Institute Singapore

Drinks and Tours of Biopolis Institutes

Dinner

Transfers back to Pan Pacific