

Northeast Regional Chromosome Pairing Conference

24-26 October 2014 Third Annual Meeting

Harvard Medical School
77 Ave Louis Pasteur
Boston, MA

Co-Organizers:

- Ting Wu, Harvard Medical School
- Giovanni Bosco, Geisel School of Medicine at Dartmouth
- Jack Bateman, Bowdoin College
- Thomas Merritt, Laurentian University

Sponsorship By:

- Kristin Walker and Eppendorf
- Margaret Muscato and Olympus
- Department of Genetics, Harvard Medical School
- The Laurentian University Research, Development, and Creativity Office
- Our thanks to Niroshi Senaratne and Mohammed Hannan for help in securing funding.

Friday, October 24

1:30PM

Ting Wu – welcome and opening remarks.

10

Eric Joyce (Wu lab): Pairing as a potent proxy for positioning and packaging phenomena

15+5

Niroshi Senaratne (Wu lab): The Real 4C: Cohesin, Condensin, and the Cell Cycle

10+5

Adrienne Perkins (Bickel lab): Does Oxidative Stress Contribute to Chromosome Mis-segregation in *Drosophila* Oocytes?

15+5

Chris Giauque (Bickel lab): The Role of Heterochromatin Proteins in Meiotic Association of Achiasmata Homologues

15+5

1h25m

2:55PM Break

3:25PM

Brian Beliveau (Wu lab): To hyb. and hyb. not: Oligopaints + DNA-PAINT

15+5

Payla Ray (Kassis lab): Combgap is a PRE-binding protein that helps recruit Ph

15+5

Stephen Hinshaw (Harrison lab): If only yeast made polytenes – lessons learned from primitive banding patterns

10+5

Haein Kim (Stumpff lab): The little primordial germ cell that couldn't: Dissecting Kif18A's essential function during germ line development

10+5

Jason Stumpff (Stumpff lab): Centering the genome: Why do mitotic chromosomes line-up at the spindle equator?

15+5

5m bonus time

1h30m

5:00PM Break

5:30PM

Sandip De (Kassis lab): Importance of chromosomal neighborhood on Polycomb group repression

15+5

Sonny Nguyen (Wu lab): Rolling (Circles) in the Deep.

10+5

Kwasi Agbleke (Wu lab): Chromosome Positioning and Dynamics in Live and at Super-resolution scale

10+5

Huy Nguyen (Bosco lab): Regulation of pairing and compaction by kinase targeting of Cap-H2.

10+5

Teresa Rzezniczak (Merritt lab): Effects of Genetic Background on Transvection in *Malic enzyme*.

10+5

Patrick O'Donnell (Merritt lab): investigating trans-interactions at the *Tpi* locus

10+5

1h35m

7:05PM Dinner

8:30PM

Hien Hoang (Wu lab): For whom the bell tolls

15+5

Ruth McCole (Wu lab): UCEs as safe harbors, or Islands in the Stream

15+5

Gio Bosco (Bosco lab): Cap-H2 regulates transvection by modulating enhancer interactions?

10+5

Barbara Mellone (Mellone lab): Centromere homeostasis and genome stability

15+5

1h30m

Saturday, October 25 (breakfast on your own)

9:00AM

Jack Bateman (Bateman lab): How come this happens?

10+5

Hernan Garcia (Garcia lab): How, when and where in pattern formation: Spying on embryonic development one molecule at a time

15+5

Jacqueline Kemp (Longworth lab): CAP-D3 Regulates Retrotransposition in human cells

10+5

Kuntal De (Longworth lab): Role of dCAPD3 in Drosophila Innate Immunity

10+5

Madhav Jagannathan (Yamashita lab): Investigating 'open' repetitive DNA in the Drosophila male germline

10+5

1h20m

10:20AM Break

10:45AM

Megan Bodnar (Spector lab): Transient pairing of homologous Oct4 alleles accompanies the onset of embryonic stem cell differentiation.

10+5

Vicky Meller (Meller Lab) Junk DNA: doing all sorts of interesting things but never asked about it

15+5

Sarah Bowman (Bowman lab): PRC2 subunit esc drives spreading of H3K27me3 in vivo

10+5

Welcome Bender (Bender lab): Establishment of Polycomb Silencing

10+5

Michelle Longworth (Longworth lab): Condensin II subunit dCAP-D3 restricts retrotransposon mobilization in *Drosophila* somatic cells

15+5

1h25m

12:10PM Lunch

1:30PM

Eugene Gladyshev (Kleckner lab): Initiation of triplet-directed pairing during Repeat-induced Point mutation (RIP) in *Neurospora crassa*

15+5

Frederick Chang (Kleckner lab): 3D timelapse imaging of fluorescent homologous loci in meiotic cerevisiae

10+5

Emily Deutschman (Longworth lab): Implications of over-expressing dCAP-D3 in vivo

10+5

Lindsey Klebanow/Andy Schuster (Longworth lab): Regulation of wing vein development by *Drosophila* CAP-D3

10+5

Alistair Boettiger (Zhuang lab): The nanoscale folding of the genome is organized by chromatin type

15+5

5m bonus time

1h25m

3:00PM Break

3:30PM

Stefan Pinter (Lee lab): Tissue-specific Allelic Imbalance of Mouse Autosomal Genes

15+5

Brandon Fields (Kennedy lab): A potential role for nuclear RNAi in genome organization in *C. elegans*

10+5

Fred Bantignies (Bantignies lab): To Loop, or not to pair, that is the question

15+5

Bob Johnston (Johnston lab): Stochastic gene expression and interchromosomal communication in natural populations

15+5

Kayla Viets (Johnston lab): Determining the role of 3D nuclear architecture in stochastic gene expression

10+5

1h30m

FREE 1-1.5 hrs, assuming we are on time (like that's going to happen), then Dinner

6:30PM Dinner

8:00PM Crazier (possibly even recklessly unsubstantiated)

Thomas Merritt (Merritt lab): Nothing is simple

15+5

Jack Bateman (Bateman lab): Something mostly crazy

10+5

Gio Bosco (Bosco lab): Even more craziness

15+5

Ting Wu (Wu lab): he A, B, Cs of the Ms and Ps of X, Y, Z

15+5

1h

Saturday evening – 9:00PM onward, refreshments and entertainment

Party with the Wu Lab! A reception will follow the talks (in the same building). Mix, mingle, and enjoy. Refreshments will be provided. Karaoke is a definite possibility.

Sunday, October 26

Nothing scheduled – say your goodbyes and head home!

Meeting Directions

The meeting will be held in Room 350 in the NRB (New Research Building) which is located at 77 Avenue Louis Pasteur in Boston. Due to construction/repair of our subway system, I highly recommend taking a taxi from the airport. When you get to our (big glass) building, go in the right hand set of glass doors, up the stairs, and then straight down the wide corridor for about 20 seconds until you reach a security desk on your right. Let the guard know that you are on the list of attendees for the Pairing Hoedown, after which you will be asked to sign in and then given an ID. Then, take the elevators to the third floor. Room 350 is just a few steps from the elevator.

Meeting Website

<http://www.homologyeffects.org/meetings>

Meeting wireless

HMS Public Wireless will be available.

Select HMS Public Wireless in your computer's wireless network settings and allow it to connect.

Launch a web browser.

A page will come up that asks you to accept the terms and conditions. Once you do, you have networking.

There's a handy web page: <http://hms.harvard.edu/departments/hms-information-technology/it-service-catalog/network-wireless#HMS%20Wireless>

(but of course you can't get there without a network).