



Center for Genomics and Systems Biology IX

NYU ABU DHABI SAADIYAT CAMPUS

Institute Conference Center, A6

February 4-7, 2019

Monday February 4, 2019

8:30 - 9:00 AM	Registration & Coffee
9:00 - 9:15 AM	Welcoming Remarks <i>Fabio Piano, Provost NYUAD</i>
9:15 AM - 12:15 PM	PANEL I: Biodiversity <i>Chair: Michael Purugganan, NYU & NYUAD</i>
9:15 - 9:45 AM	Unravelling the past using ancient DNA: Bioinformatic challenges & population genetic insights <i>Daniel Wegmann, University of Fribourg</i>
9:45 - 10:15 AM	Phylogenomics and geographic diversity of falcons and other raptors <i>David Mindell, University of California, Berkeley</i>
10:15 - 10:45 AM	Break & Refreshments
10:45 - 11:15 AM	The fate of deleterious variants in a barley genomic prediction population <i>Peter Morrell, University of Minnesota</i>
11:15 - 11:45 AM	Is more always better? The effect of whole genome duplications in different genetic backgrounds of <i>Arabidopsis thaliana</i> <i>Paula Kover, University of Bath</i>
11:45 AM - 12:15 PM	Genomics of African crop domestication <i>Yves Vigouroux, Université de Montpellier</i>
12:15 - 2:00 PM	Lunch
12:15 - 2:00 PM	Career Discussion for Women Scientists <i>Hosted by: Kirsten Sadler Edepli</i>

Room: A6 004

2:00 - 4:30 PM

PANEL II: Synthetic Biology

Chair: Kourosh Salehi-Ashtiani, NYUAD

2:00 - 2:30 PM

How to push the boundaries of biocatalysis and metabolic engineering

M. Kalim Akhtar, United Arab Emirates University

2:30 - 3:00 PM

Development of light-driven green cell factories: Strategic transgene design enables mature metabolic engineering of the eukaryotic green microalga *Chlamydomonas reinhardtii*

Kyle Lauersen, Universität Bielefeld

3:00 - 3:30 PM

Break & Refreshments

3:30 - 4:00 PM

Engineering microbes to rewire host-microbiome interactions

Matthew Chang, National University of Singapore

4:00 - 4:30 PM

RNA-mediated gene fusion in mammalian cells

Laising Yen, Baylor College of Medicine

4:30 - 6:30 PM

Poster Session I

6:30 - 8:00 PM

Public Program

The taming of plants: Domestication of the food species we eat

Michael Purugganan, NYU & NYUAD

*Immediately followed by a public reception

Tuesday February 5, 2019

8:30 - 9:00 AM

Registration & Coffee

9:00 AM - 12:00 PM

PANEL III: Neuronal Systems

Chair: Kirsten Sadler Edepli, NYUAD

9:00 - 9:15 AM

Emergence of internal representations are accompanied by dynamic changes in cortical connectivity

Gabrielle Pouchelon, Harvard University

9:15 - 9:30 AM

Emerging Epitranscriptomics in the Synapse

Dan Ohtan Wang, Kyoto University

9:30 - 10:00 AM

Neural circuits of dexterity

Adam Hantman, Howard Hughes Medical Institute - Janelia

10:00 - 10:30 AM

Synaptic organization of the prefrontal cortex

Adam Carter, NYU

10:30 - 11:00 AM	Break & Refreshments
11:00 - 11:30 AM	To divide or to differentiate – the fate of Drosophila neural stem cells <i>Catarina Homem, Nova Medical School-CEDOC, Universidade Nova de Lisboa</i>
11:30 AM - 12:00 PM	Modeling neurodegenerative resistance with stem cell technologies <i>Esteban Mazzoni, NYU</i>
12:00 - 1:00 PM	Lunch
1:00 - 2:00 PM	Tour of ERB Labs
2:00 PM onward	Free afternoon

Wednesday February 6, 2019

8:30 - 9:00 AM	Registration & Coffee
9:00 AM - 12:00 PM	PANEL IV: Chemical & Functional Genomics <i>Chair: Kristin Gunsalus, NYU & NYUAD</i>
9:00 - 9:30 AM	Live imaging of transcription and transcription factors in fly embryos <i>Michael Eisen, University of California - Berkeley</i>
9:30 - 10:00 AM	Universal platform for fluorescent live cell selective imaging <i>Young-Tae Chang, Pohang University of Science and Technology</i>
10:00 - 10:30 AM	How different is different? Quantification of phenotypic changes with High-Content-Screen Fingerprints <i>Paul Selzer, Novartis Institutes for BioMedical Research</i>
10:30 - 11:00 AM	Break & Refreshments
11:00 - 11:30 AM	Mapping trajectories of drug-induced tumor evolution “one cell at-a-time” <i>Ramanuj DasGupta, Genome Institute of Singapore, A*STAR, NYU SoM</i>
11:30 AM - 12:00 PM	Proteome dynamics <i>Matthias Selbach, Max Delbrück Center for Molecular Medicine in the Helmholtz Association</i>
12:00 - 1:30 PM	Lunch
12:00 - 1:30 PM	Lunch with Science Editor <i>Nicole Rusk, Nature Methods</i> Room A6 001

1:30 - 4:30 PM	PANEL V: Cells, Development & Diseases
	<i>Chair: Youssef Idaghdour, NYUAD</i>
1:30 - 2:00 PM	A new force awakens: Evolution of tissue mechanics in insect gastrulation <i>Pavel Tomancak, Max Planck Institute of Molecular Cell Biology and Genetics</i>
2:00 - 2:30 PM	Long Range gene regulation during vertebrate development and evolution <i>Denis Duboule, École Polytechnique Fédérale de Lausanne</i>
2:30 - 3:00 PM	Signals and forces patterning the intestinal smooth muscle <i>Clifford Tabin, Harvard Medical School</i>
3:00 - 3:30 PM	Break & Refreshments
3:30 - 4:00 PM	DNA methylation and the stability of the genome <i>Mamta Tahiliani, NYU - Skirball</i>
4:00 - 4:15 PM	Transcriptome analysis and linkage role of nuclear actin and adipocyte differentiation reveal a molecular modifier sub-type potential <i>Mohamed Al-Sayegh, NYUAD</i>
4:15 - 4:30 PM	A journey beyond apoptosis: Novel role of Par-4 in autophagy <i>Anees Cheratta, NYUAD</i>
4:30 – 6:00 PM	Poster Session II
6:00 - 7:15 PM	Keynote Lecture What experiments can tell us about evolution <i>Andrew Murray, Harvard University</i>

Thursday February 7, 2019

8:30 - 9:00 AM	Coffee
9:00 AM - 12:15 PM	PANEL VI: Food Security
	<i>Chair: Hala Fahs, NYUAD</i>
9:00 - 9:30 AM	The future of desert agriculture <i>Khaled Amiri, United Arab Emirates University</i>
9:30 - 10:00 AM	Soil microbiome and its relevance in the context of global food security <i>Bharath Prithviraj, Prime Discoveries</i>
10:00 - 10:30 AM	Next green revolution: Plant endophytes to enhance stress tolerance

	and crop yield <i>Heribert Hirt, King Abdullah University of Science and Technology</i>
10:30-10:35 AM	Autobiography – Wayne McGregor <i>Wayne Mcgregor, Company Wayne McGregor</i>
10:35 - 11:00 AM	Break & Refreshments
11:00 - 11:30 AM	Cry toxins for ecofriendly pest control: Mechanisms of action and field-evolved resistance <i>Juan Luis Jurat-Fuentes, University of Tennessee</i>
11:30 AM - 12:00 PM	Genomics and mobilomics of the entomopathogen and biopesticide <i>Bacillus thuringiensis</i> <i>Jacques Mahillon, Université catholique de Louvain</i>
12:00 - 12:15 PM	Pathogene, rapid and portable pathogen detection using gene Amplification techniques <i>Sion Hau, NYUAD</i>
12:15 - 12:30 PM	Closing Remarks <i>CGSB Co-directors: Kristin Gunsalus & Claude Desplan</i>
12:30 - 2:00 PM	Lunch
12:30 - 2:00 PM	Arts and Science Lunch <i>Wayne Mcgregor, Lucy Glover and others</i> Location: Torch Club above D2 Building