Tuesday February 6, 2018 | DAY 1

8:30 - 8:45 AM  Registration & Coffee

8:45 - 9:00 AM  Welcoming Remarks
Fabio Piano, NYUAD

9:00 AM - 12:00 PM  PANEL I: Biodiversity
Chair: Michael Purugganan, NYU & NYUAD

9:00 - 9:30 AM  Revisiting the evolutionary history of the date palm
Muriel Gros-Balthazard, New York University Abu Dhabi

9:30 - 10:00 AM  The wondrous cycles of polyploidy in plants
Jonathan Wendel, Iowa State University

10:00 - 10:30 AM  Adjusting the valves: Stomatal development in time and space
Dominique Bergmann, Stanford University

10:30 - 11:00 AM  Break & Refreshments

11:00 - 11:30 AM  Genome sequencing of date palm wild relatives supports a role for introgressive hybridization in domestication
Jonathan Flowers, NYU & NYUAD
Dynamic gene expression, metabolites, and microbial communities in a symbiotic sea anemone
*Adam Reitzel, University of North Carolina*

**Lunch**

**Career Discussion for Women Scientists Luncheon**

Moderator: Kirsten Sadler Edepli

Room A6 001

**Panel II: Neuronal Systems**

*Chair: Claude Desplan, NYU & NYUAD*

Molecular and circuit mechanisms of behavioral evolution
*Vanessa Ruta, Rockefeller University*

Development and evolution of the human neocortex
*Arnold Kriegstein, University of California-San Francisco*

Neural motion: Looking for common principles of network dynamics, from insects to cephalopods to cortex
*Gilles Laurent, Max Planck Institute-Frankfurt*

**Break & Refreshments**

Molecular mechanisms of neural stem cell lineage progression
*Simon Hippenmeyer, Institute of Science and Technology Austria*

How do nerve cells compute the direction of motion?
*Alexander Borst, Max Planck Institute-Munich*

**Campus Tour**

**Public Program**

The Role of Technology in Feeding 10 Billion
*Nina Fedoroff, Pennsylvania State University*

*Immediately followed by a public reception*
8:30 - 9:00 AM  Registration & Coffee

9:00 AM - 12:00 PM  PANEL III: Cells, Development & Diseases
  Chair: Youssef Idaghdour, NYUAD

  9:00 - 9:30 AM  Local transcriptomes and proteomes in neurons
      Erin Schuman, Max Planck Institute-Frankfurt

  9:30 - 10:00 AM  Non-communicable diseases and epigenetics
      Maryam Matar, Founder of UAE Genetic Diseases Association

  10:00 - 10:30 AM  Genetic risk factors for diabetes in ethnic populations
      Rana Dajani, Hashemite University

10:30 - 11:00 AM  Break & Refreshments

11:00 - 11:30 AM  Moving in the crowded cell: Motors, forces, and disease
      George Shubeita, NYUAD

11:30 - 11:45 AM  An evolutionary scandal: 18 million years without sex
      Kristin Gunsalus, NYU & NYUAD

11:45 AM - 12:00 PM  Fighting parasitic worms with bacterial crystals
      Hala Fahs, NYUAD

12:00 - 1:30 PM  Lunch

12:00 - 1:30 PM  LUNCH WITH EDITORS
      Pamela Hines, Science
      Catherine Potenski, Nature Genetics
      Room A6 001

1:30 - 4:30 PM  PANEL IV: Chemical & Functional Genomics
  Chair: Kristin Gunsalus, NYU & NYUAD

  1:30 - 2:00 PM  Comprehensive analysis of single and double mutants in yeast
      Anastasia Baryshnikova, Calico Life Sciences

  2:00 - 2:30 PM  What do RNA-binding proteins bind?
      Quaid Morris, University of Toronto
2:30 - 3:00 PM  Chromatin organization and gene regulation in the *C. elegans* germ line  
*Valerie Reinke, Yale University*

3:00 - 3:30 PM  Break & Refreshments

3:30 - 4:00 PM  Profiling the gene set controlling *C. elegans* embryonic development using an automated method that enables phenotypic comparison in 4D imaging data  
*Karen Oegema, University of California-San Diego*

4:00 - 4:30 PM  Screening neurodegenerative models with automated microscopy  
*Marc Bickle, Max Planck Institute of Molecular Cell Biology and Genetics*

4:30 - 6:00 PM  Poster Session

6:00 - 7:00 PM  KEYSNOTE  
Shaping immune responses by the commensal microbiota  
*Dan Littman, New York University School of Medicine*

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**Thursday February 8, 2018 | DAY 3**

8:30 - 9:00 AM  Coffee

9:00 AM - 12:00 PM  PANEL V: Synthetic Biology  
*Chair: Kourosh Salehi-Ashtiani, NYUAD*

9:00 - 9:30 AM  The lesser known half of the perennial crop equation: Diversity, diversification, and rootstock domestication in grafted grapevines  
*Allison Miller, University of Missouri*

9:30 - 10:00 AM  From combating vitamin A deficiency to witchweed control  
*Salim Al-Babili, King Abdullah University of Science and Technology*

10:00 - 10:30 AM  Shared resources by the numbers  
*Andras Gyoergy, NYUAD*

10:30 - 11:00 AM  Break & Refreshments
11:00 - 11:30 AM  Designing RNA architectures to engineer and analyze systems on a large scale
James Carothers, University of Washington

11:30 AM - 12:00 PM  Synthetic biology meets synthetic chemistry – In vivo activation of an apo-metalloenzyme using synthetic cofactors
Namita Khanna, Birla Institute of Technology and Science Pilani-Dubai Campus

12:00 - 12:30 PM  Design, construction, and analysis of a synthetic minimal bacterial cell
John Glass, J.Craig Venter Institute

12:30 - 12:45 PM  Closing Remarks

12:45 - 2:45 PM  Lunch at Torch Club

Design, construction, and analysis of a synthetic minimal bacterial cell
John Glass, J.Craig Venter Institute