

Workshop 'Plasticity and Constancy in Development and Evolution'

> Ben-Gurion University of the Negev May 9-10, 2022

### Monday, May 9th

**9:30-10:00** Registration and Refreshments

**10:00-10:15** Greetings and Opening Remarks

10:15-11:45 Plasticity and Constancy - a Molecular and an Ancient Perspective

**Denis Duboule and Colleagues,** University of Geneva "A molecular approach of constancy and flexibility during vertebrate development"

**Edward Halper,** University of Georgia "Stability and change: some ancient and modern perspectives"

11:45-12.00 Coffee Break

12:00-13:30 Stability and Dynamics of Cell Identity in Development

**Adrian Bird,** University of Edinburgh "Proteins that interpret genomic signals to stabilise cell identity"

James Briscoe, Francis Crick Institute "About time: The dynamics of nervous system development"

13:30-14:30 Lunch break

### 14:30-16:45 Plasticity and Constancy - Philosophical and Scientific Perspectives

Ute Deichmann, Ben-Gurion University of the Negev

"The idea of constancy in development and evolution - scientific and philosophical perspectives"

**Philippa Lang,** Emory University "Boundaries of change and development in ancient atomistic theory"

# Jeremy Gunawardena, Harvard Medical School

"Plasticity and constancy as learning and memory: a cognitive perspective on cellular behaviour"

16:45-17:15 Coffee Break

17:15-18:45 Ariel Chipman, The Hebrew University of Jerusalem "Serial homology and segmental identities in arthropod development and evolution" Eileen Furlong, EMBL, Heidelberg

"Understanding the impact of developmental perturbations with a new level of resolution"

18:45

Musical Interlude Dinner for Invited Speakers and Guests



## Tuesday, May 10th

#### 9:30-11:45 Gene Regulation and the Continuity of Cells in Evolution and Development

**Ellen Rothenberg,** California Institute of Technology "Continuities between adaptive and innate immune-cell developmental programs: a clue to evolutionary history?"

**Benny Shilo,** Weizmann Institute "Generation and timing of graded responses to morphogen gradients"

**Alexander Stark,** University of Vienna "Decoding transcriptional regulation in Drosophila"

11:45-12:15 Coffee Break

12:15-13:45 A Genomic View on Developmental Disease

**Stas Shvartsman,** Princeton University "Causality in developmental abnormalities associated with mutations in cell signaling systems"

**Ramon Birnbaum,** Ben-Gurion University of the Negev "Genomic view of gene regulatory elements and their role in human disease"

1**3:45-14:45** Lunch

14:45-17:00 The Regulatory Genome, Evolutionary Novelty, and Aristotle's View on Evolution

**Joseph Parker,** California Institute of Technology "Cell type evolution and the emergence of organ function"

**Douglas Erwin,** Smithsonian Museum, Washington D.C. "Bodyplans and evolvability: How does the structure of the regulatory genome deliver novelty while ensuring continuity?"

**Andrew German,** Ben-Gurion University of the Negev "Aristotle vs. Evolutionary Theory: Identifying the most difficult question"

17:00-17:15 Coffee

17:15-17:45 Round Table Discussion

**19:30** Dinner and evening lecture for invited speakers and guests

