

23-24  
February  
2020

# The Language of Evolution & The Evolution of Language

Michael Sela Auditorium | Weizmann Institute of Science

Genomes and natural languages evolve constantly and they have much in common. Genomes are written in multiple languages, and like the languages we use for communication, genomes have syntactic structures and semantics, and they feature translation, editing and text splicing programs. Like genes, linguistic elements are born, mutate, and are transferred between languages according to their contribution to the “fitness” of the language. The mechanisms and dynamics of the evolution of both genomes and languages share similarities, but the differences can be equally enlightening. This conference will bring together scientists from molecular evolution and from linguistics and human culture for a cross-disciplinary meeting that will aim to foster mutual fertilization between these fields.

Speakers

- ◆ **Uri Alon**  
Weizmann Institute of Science, Israel
- ◆ **Mark Aronoff**  
Stony Brook University, USA
- ◆ **Quentin Atkinson**  
University of Auckland, New Zealand
- ◆ **Alex Ben-Ari**  
Israel
- ◆ **Tal Dagan**  
Kiel University, Germany
- ◆ **David Gokhman**  
Stanford University, USA
- ◆ **Susan Goldin-Meadow**  
University of Chicago, USA
- ◆ **Victoria Hanna**  
Israel
- ◆ **Eugene Koonin**  
NCBI, NLM, NIH, USA
- ◆ **Elisha Moses**  
Weizmann Institute of Science, Israel
- ◆ **Martin Nowak**  
Harvard University, USA
- ◆ **Tzachi Pilpel**  
Weizmann Institute of Science, Israel
- ◆ **Joshua Plotkin**  
University of Pennsylvania, USA
- ◆ **Yoav Ram**  
IDC Israel
- ◆ **Wendy Sandler**  
University of Haifa, Israel
- ◆ **Elad Schneidman**  
Weizmann Institute of Science, Israel
- ◆ **Adi Stern**  
Tel-Aviv University, Israel
- ◆ **Kristian Tylén**  
Aarhus University, Denmark
- ◆ **Eske Willerslev**  
University of Copenhagen, Denmark
- ◆ **Ghil'ad Zuckermann**  
University of Adelaide, Australia

## Organizers

**Tzachi Pilpel | Ruth Towers**  
Weizmann Institute of Science, Israel

**Wendy Sandler**  
University of Haifa, Israel

## Conference Coordinator & Accessibility Issues

**Irit Veksler**  
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## Registration



Register Here  
[bit.ly/2R8INrp](https://bit.ly/2R8INrp)

Sponsors



Braginsky center for the Interface between Science & the Humanities

The Chorafas Institute for Scientific Exchange

Faculty of Mathematics & Computer Science

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Faculty of Biology

## Sunday, February 23<sup>rd</sup>, 2020

09:00-09:30	<b>Gathering, coffee and greetings</b>
09:30-10:00	<b>Quentin Atkinson</b> , University of Auckland, New Zealand Language, culture and the last major transition in evolution
10:00-10:30	<b>Wendy Sandler</b> , University of Haifa, Israel The grammar of the body and language Evolution
10:30-11:00	<b>David Gokhman</b> , Stanford University, USA Gene regulatory evolution of the modern human vocal tract
11:00-11:30	<b>Coffee break</b>
11:30-12:00	<b>Mark Aronoff</b> , Stony Brook University, USA Language and evolution: a dialogue
12:00-12:30	<b>Martin Nowak</b> , Harvard University, USA Evolution and learning of language
12:30-13:30	<b>Lunch</b>
13:30-14:30	<b>Sign Language Theatre</b> Ebisu Sign Language Theatre Laboratory
14:30-15:15	<b>Posters and Coffee break</b> David Lopatie Conference Center
15:15-15:45	<b>Kristian Tylen</b> , Aarhus University, Denmark Carving language for cognition and interaction: an experimental approach
15:45-16:15	<b>Yoav Ram</b> , IDC Herzliya, Israel The apple *sometimes* falls far from the tree: Evolution of non-vertical cultural transmission
16:15-16:45	<b>Elad Schneidman</b> , Weizmann Institute of Science, Israel Learning a thesaurus for a neural code
16:45-17:15	<b>Victoria Hanna</b> , Israel The mouth - an Instrument for creating worlds

## Monday, February 24<sup>th</sup>, 2020

09:00-09:30	<b>Gathering and coffee</b>
09:30-10:00	<b>Susan Goldin-Meadow</b> , University of Chicago, USA The gestural origins of language and thought
10:00-10:30	<b>Alex Ben-Ari</b> , Israel Creating creation: a trail through conceptual poetry
10:30-11:00	<b>Uri Alon</b> , Weizmann Institute of Science, Israel Natural selection and multi-objective optimality
11:00-11:30	<b>Coffee break</b>
11:30-12:00	<b>Tal Dagan</b> , Kiel University, Germany Evolution for multicellularity traits in Cyanobacteria: A phylogenomics perspective
12:00-12:30	<b>Eske Willerslev</b> , University of Copenhagen, Denmark What ancient DNA can tell us on spread of humans and languages?
12:30-13:30	<b>Lunch</b>
13:30-14:00	<b>Joshua Plotkin</b> , University of Pennsylvania, USA Evolutionary forces of cultural change
14:00-14:30	<b>Adi Stern</b> , Tel Aviv University, Israel The evolution of competing cheater viruses
14:30-15:00	<b>Elisha Moses</b> , Weizmann Institute of Science, Israel Organization of information in language
15:00-15:45	<b>Posters and Coffee break</b>
15:45-16:15	<b>Ghil'ad Zuckermann</b> , University of Adelaide, Australia Revivalistics: From the genesis of Israeli to language reclamation in Australia and beyond
16:15-16:45	<b>Tzachi Pilpel</b> , Weizmann Institute of Science, Israel Genetic onomatopoeia: what can cells know about proteins before translating them?
16:45-17:15	<b>Eugene Koonin</b> , NCBI, NLM, NIH, USA Evolution of genomes and languages: Tantalizing analogies and major differences
17:30-18:30	<b>Dinner</b>
19:00	<b>Ensemble Kartoshkes, Playback Theater</b> Botnar Auditorium, Belfer building



The conference lectures will be broadcasted at:  
[bit.ly/2VfI7CX](https://bit.ly/2VfI7CX)