

# ISEB 2023 Programme



## Sunday 2/4

Hecht Auditorium			
09:00	<b>Opening remarks</b> Assaf Distelfeld - Head of the Institute of Evolution Ariel Chipman - ISEB President Eyal Privman - Conference Co-Chair	09:00	
09:30	<b>KEYNOTE: Tal Pupko</b> AI and phylogenomics	09:30	
10:30	Coffee break	10:30	
	<b>Floor 30</b>	<b>Floor 29</b>	
	<i>Evo-devo &amp; organismal evolution</i> (Chair: Ella Preger-Ben Noon)	<i>Evolutionary theory</i> (Chair: Lilach Hadany)	
10:45	<b>Ram Reshef</b> Origin and regulation of the vertebrate kidney	<b>Lilach Hadany</b> The microbiome and evolutionary theory	10:45
11:10	<b>Anna Urum</b> A single-cell transcriptome analysis of rapidly evolving <i>Drosophila</i> male genitalia	<b>Yoav Ram</b> Aneuploidy can be an evolutionary detour on the path to genetic adaptation	11:10
11:25	<b>Oren Lev</b> The Role of Segment Polarity Genes in Hemimetabola Segmentation	<b>Darar Bega</b> Periodical environmental changes and the evolution of senescence	11:25
11:40	<b>Jacob Dembitzer</b> Lepidosaur macroevolution through deep time	<b>Aviad Heifetz</b> The disperser dilemma	11:40
11:55	Coffee break		11:55
12:15	<b>Smadar Ben-Tabou de-Leon</b> The co-option of the mechanosensing and mechanotransduction during the evolution of biomineralization in metazoans	<b>Tamar Friendlander</b> The role of multi-partner protein interactions in the evolution of RNase-based self-incompatibility	12:15
12:40	<b>Amir Sapir</b> The good, the bad, and the surprising- cholesterol metabolism adds another piece to the puzzle of evolution	<b>Gabriela Lobinska</b> What are the genes that make evolution work?	12:40
12:55	<b>Joachim Surm</b> Unravelling the role of venom in predator-prey interactions using natural populations and transgenic approaches in <i>Nematostella vectensis</i>	<b>Remus Stama</b> Modeling the effect of aneuploidy on cancer evolution	12:55
13:10	Lunch break + Poster session		13:10
	<i>Microbial evolution</i> (Chair: Sarit Avrani)	<i>Behavioral evolution</i> (Chair: Shay Stern)	
14:40	<b>Tzachi Pilpel</b> A search for evolvability genes	<b>Shay Stern</b> Organization of long-term behavior and individuality across developmental timescales	14:40
15:05	<b>Jonathan Greenbaum</b> Recurring cyanophage infection results in increased fitness rather than changes in host range	<b>Yiftach Golov</b> Not an automatic pilot: The important role of sexual selection on navigation performances of nocturnal moths	15:05
15:20	<b>Sivan Strauss</b> Deciphering genetic determinants of sexual mating and its effects on offspring fitness and evolution	<b>Ohad Peled</b> A quantitative multi-trait approach is consistent with a major evolutionary transition rather than stepwise increased social complexity in bees	15:20
15:35	<b>Shira Zion</b> Adaptation under prolonged resource exhaustion is characterized by high levels of convergence and frequent historical contingency	<b>Eyal Privman</b> Evolution of supergenes: lessons from social chromosomes	15:35
15:50	Coffee break		15:50
	<i>Genome evolution</i> (Chair: Dan Mishmar)	<i>Human evolution</i> (Chair: Assaf Marom)	
16:10	<b>Dan Mishmar</b> Mitochondrial genomics - ancient evolutionary challenges in regulating a bigenomic system with intracellular variation	<b>Assaf Marom</b> The facial motor system: a human evolutionary viewpoint	16:10
16:35	<b>Anat Shafir</b> A non-homogenous model of chromosome-number evolution to reveal shifts in the transition patterns across the phylogeny	<b>Viviane Slon</b> Tracking past human dispersals using sedimentary ancient DNA	16:35
16:50	<b>Hadas Ner-Gaon</b> Exploration of changes in exon number of orthologous genes across the phylogenetic tree	<b>Ruthie Golomb</b> Cell-autonomous evolutionary adaptation	16:50
17:05	<b>Gil Loewenthal &amp; Lior Glick</b> A mystery in-between: The evolution of intron length	<b>Yotam Ben-Oren</b> The differential spread of neutral and adaptive cultural traits among partially connected populations	17:05
17:20	Coffee break		17:20
	Hecht Auditorium		
17:40	<b>KEYNOTE: Margarida Cardoso Moreira</b> Origins and evolution of vertebrate organs	17:40	



**Monday 3/4**

Hecht Auditorium		
09:00	<b>KEYNOTE: David Gresham</b> Copy number variants alter local and global mutational tolerance	09:00
10:00	Coffee break	10:00
	<b>Floor 30</b> <span style="float: right;"><b>Floor 29</b></span>	
	<i>Ecology and evolution</i> (Chair: Lee Koren)	<i>Experimental evolution</i> (Chair: Lianet Noda-Garcia)
10:15	<b>Lee Koren</b> Sex, testosterone, and fitness in wild rock hyrax	10:15
10:40	<b>Michal Segoli</b> What is the secret of success of the invasive brown widow spider <i>Latrodectus geometricus</i> ?	10:40
10:55	<b>Yael Lubin</b> Sib-mating enhances fitness in a haplodiploid beetle	10:55
11:10	<b>Akiva Topper</b> Accumulation of deleterious alleles may be slower in r-selected species than commonly predicted	11:10
11:25	Coffee break	11:25
11:45	<b>Tamar Guy-Haim</b> Marine copepods and their microbiome as water mass bioindicators	11:45
12:10	<b>Ally Harari</b> Rapid evolutionary changes in a sexual trait in response to anthropogenic interference: The case of the pink bollworm in cotton fields	12:10
12:25	<b>Shevy Waner Rips</b> Behavioural adaption of the pink bollworm moth in response to the mating disruptive technique used in cotton fields	12:25
12:40	Lunch break + Poster session	12:40
	<i>Plant evolution</i> (Chair: Sariel Hübner)	<i>Evolutionary medicine</i> (Chair: Hila May)
14:10	<b>Sariel Hübner</b> Genomic landscapes of adaptation to future climate: wild barley as a model	14:10
14:35	<b>Pnina Cohen</b> Ancient DNA from a lost Negev Highlands desert grape reveals a Late Antiquity wine lineage	14:35
14:50	<b>Keren Halabi</b> Characterization of polyploidy in plants using extensive ploidy inference based on chromosome number	14:50
15:05	<b>David Lerner</b> The role of the differential tropical-temperate evolutionary potential of tree species on their current global distribution	15:05
15:20	Coffee break	15:20
	<i>Molecular evolution</i> (Chair: Einat Hazkani-Covo)	<i>Pop-gen</i> (Chair: Rachel Ben-Shlomo)
15:40	<b>Einat Hazkani-Covo</b> Compensatory frameshifts are common in <i>Saccharomyces cerevisiae</i> genes	15:40
16:05	<b>Fabrizio Mafessoni</b> Characterizing the mechanisms at the origin of short structural variation across species	16:05
16:20	<b>Noa Aharon-Hefetz</b> Discovering the role of tRNA-codon usage adaptation in viral infection	16:20
16:35	<b>Mickey Kosloff</b> Computational prediction of divergent ant olfactory receptor binding sites	16:35
16:50	Coffee break	16:50
17:10	<b>KEYNOTE: Nina Wedell</b> Sex, conflict and selfish genes	17:10
18:10	Prizes and concluding remarks	18:10
18:40	After party	18:40