

# ILANIT 2023 – PROGRAM OUTLINE (updated 07.02.2023)

SAC 1	SAC 2	SAC 3	SAC 4	SAC5	SAC 6	SAC7	SAC 8
Genetics, Genomics, Epigenetics and Systems Biology	Molecular/Structural Biology, Biochemistry and Biophysics	Cancer, Immunology and Physiology	Microbiology, Virology and Parasitology	Plant Biology, Zoology and Ecology	Cellular and Developmental Biology, Stem Cell biology	Biotechnology, Biomedicine and Endocrinology	Neuroscience

	Blue Hall A	Blue Hall B	Tarshish A	Tarshish B	Kings A	Kings B	Queens	Laurence	Hadar	Zeit	Shita	Ella	Alon	Sapphire	Topaz	
<b>Monday 20.2.23</b>	10:45-15:30	Registration (Tarshish, Dan Eilat)														
	15:30-16:00	Opening Ceremony														
	16:00-16:45	Plenary Lecture 1: Genevieve Almouzni - Histones variants and friends, a state of play for shaping chromatin and cell fate (Pavillion, Herods)														
	16:45-17:00	On behalf of the ISF and PBC - A preview of the planned "MAVRI" and Sustainability ("Kayamut") programs, 2023-2027 (Pavillion, Herods)														
	17:00-17:30	Coffee Break														
	17:30-18:15	Plenary Lecture 2: Jennifer Lippincott-Schwartz - Looking under the hood of cells: from single molecule dynamics to whole cell organelle reconstructions (Pavillion, Herods)														
	18:15-19:00	Plenary lecture 3: David Attwell - Regulation of cerebral blood flow by capillary pericytes in health and disease (Pavillion, Herods)														
	20:10-23:00	Opening Reception Dinner at the Dan Hotel Pool														

	Dan Hotel				Herods Hotel				Royal Beach Hotel				Queen of Sheba Hotel			
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<b>Tuesday 21.2.23</b>	7:00-18:00	Registration														
	7:45-8:45	7:30 – 08:45 MD/PhD session	Pitching in: scientists, education and the biology in between	Advanced computational methodologies	Emerging technologies and dual-use research concerns	Molecular tools in wildlife conservation research	Tissue repair in the animal kingdom	Advanced single molecule methods for life sciences		Soft skills - transitioning from experimental to computational biology	Soft skills - imposter syndrome	Refine your Protein Workflow with Advanced Solutions from Merck – company sponsored session by Sigma Aldrich	Mechanism of healthy aging	From the lab to the plate – BioConvergence for food development	Protein translation in health and disease	From mutation to evolution
	9:00-10:45	Viral immunity	Cancer and immunity: from complexity to solutions	In vitro, in vivo, and in silico protein evolution - convergence, complementation, and divergence (in memory of Dan Tawfik)	Mass spectrometry: new technologies and their applications	Frontiers in plant molecular genetics	Molecular mechanisms in the microbial world	From cell mechanics to tissue morphogenesis	Biological interactions and behaviour in the Anthropocene	Mechanisms of cell fate specification	Post doc session I – Cancer related	Advances in chemical biology to uncover how to flip the (redox) switch in cells	Pluripotent stem cells: biology and applications	Meet the Editors	Latest advances in extracellular vesicles: from bench to bedside	Systems biology in multicellular organisms
	10:45-11:30	Coffee Break & Exhibition														
	11:30-13:15	Cancer genomics	Novel approaches to immunopharmacology	Environment and microenvironment effects on endocrine development and function	Post doc session II – Neurobiology and physiology	New challenges in cell death biology	Organelle structure and function	Multilevel research from cells to organism: decoding cytoskeleton mechanobiology	From mechanistic strategies of acclimation to changes in biogeochemical cycling	Biosensors and theranostic systems	Host pathogen interactions	Genome stability & DNA repair	Stem cell-based models of development and regeneration	Fertility along the phylogenetic tree	Neurobiology of natural behaviors	Multimolecular complexes and their dynamics
	13:15-14:30	Lunch Break & Exhibition														
	14:30-16:15	Combined cancer therapy	Study, development and rational use of immunopharmacological agents	Precision immunity and personalized medicine	Variations on a theme: non-canonical translation	Advances in OMICS technologies	Protein-DNA interactions	Musculoskeletal development and disease	Keeping time in a changing world	From stem-cells to germ-cells and back	Clinical medicine in the genomic era	Synthetic biology - artificial cells, artificial organelles, biomedicine	RNA modifications in evolution and disease	Protein folding and disorder in the post AlphaFold era	Microbial communication and multicellularity	Neurological and immunological trajectories: parallels and meeting points
	16:15-17:00	Coffee Break & Exhibition														
	17:00-21:00	Poster Session (Pavilion Hall, Amirim Hall, Herods Hotel)						Post-docs meeting with Deans – by invitation only (16:30-19:00)								
	18:30-21:00	Light Dinner (Pavilion Terrace, Herods)														
21:30	Evening Gathering															

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Wednesday 22.2.23	07:00	Run for Your Lab – 5K Race (Starting Point – Kampen St.)														
	07:15-18:00	Registration (Dan Eilat, Hotel Lobby)														
	8:00-9:00	7:30 – 09:00 MD/PhD session	Google Cloud for Research using AI/ML and Data Analytics - Sponsored session by Google	Biological control and plasticity from molecular circuits to human populations	Animal sociality: collective behaviour, decision making and the transfer of information	The neural basis of social communication	08:00 – 08:30 The genome era – sponsored session by Danyel Biotech  08:30 – 09:00 The usefulness of automated chromatography in protein purification – Tools to support your strategy – sponsored session by Danyel Biotech	Finding a needle in a haystack- using Digital PCR for biomarkers discovery – sponsored session by Ilex Medical	Core Facility Round Tables	Soft skills - communicating your research to the general public	Soft skills - How to get to where you are going: Insights from a scientist's journey	Soft skills - going to a postdoc abroad (Wiser and Science Abroad)	New Biomaterials for tissue engineering applications	Biophysics of plants		
	09:10-12:00	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks	Flash talks
	12:00-13:45	Stem cells on the initiation, progression, and treatment of cancer	Cancer: therapeutics and diagnostics	Fundamental and applicative immunology	Immunity and cell death: crosstalk in health and disease	Bio Med Session I - Translational research - Building solutions to real medical problems (in partnership with 8400 the Health Network)	Gene and cell therapies	Women in science - challenges and opportunities	Cellular shapes and migration from theory to physiology	Post doc session III - Immunity, cell biology and biophysics	Protein homeostasis in health and disease	Principles of microbial growth	System biology of stem cell behaviour	A new RNA world	Exploring biology through chemistry and computation	SARS-CoV-2 Virology
	13:45-15:00	Lunch Break & Exhibition														
	15:00-16:45	At the interface of chemistry and biology	Innate and adaptive immune regulation in health and disease	Cancer metastasis and microenvironment	Parasitology and tropical medicine (biology of parasitism)	Adaptation to a changing environment: from molecules to organisms	Epigenetics in evolution and disease	Bio Med Session II - Fostering the next breakthroughs - Educators perspective (in partnership with 8400 the Health Network)	Advances in heart failure related research	Microbiome in health and disease	Multiscale and multimodal microscopy methods in biology	Diabetes and the metabolic syndrome - the redox point of view	Stem cell based emerging technologies	Quantitative approaches to development	Proteolysis - pivot point in cellular regulation	New horizons in virology
	16:45-17:30	Coffee Break & Exhibition														
	17:30-18:15	Plenary Lecture 4: Brenda Schulman - Structural mechanisms of ubiquitin ligation (Pavillion, Herods)														
	18:15-18:35	FISEB Award Ceremony (Pavillion Hall, Herods)														
18:30-19:30	Welcome home- Important funding and networking information for returning postdocs and MD/PhDs – by invitation only (Blue Hall B)															
21:30	Party (Pavillion Hall, Herods)															

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<b>Thursday 23.2.23</b>	<b>07:45-14:00</b>	<b>Registration (Dan Hotel, Lobby)</b>														
	<b>8:30-10:15</b>	New diagnostic tools for the early detection of cancer	Origins and dynamics of the immune system	Cancer immunotherapies	Research innovations and updates in atherosclerosis and related diseases	Cellular phase separation: biophysical principles and experiments	Structural biology at the forefront of novel drug development	Bio Med Session III - Gaps and Opportunities - Academia and Industry side by side (in partnership with 8400 the Health Network)	Bacteriophages and their implications	What is so special about plant specialized metabolites?	Big data in health and disease - challenges and opportunities	Mitochondrial genetics and genomics	Adult stem cells and regenerative medicine	Population level responses to climate change	Molecular systems neuroscience	Frontiers in developmental neuroscience
	<b>10:15-11:00</b>	<b>Coffee Break &amp; Exhibition</b>														
	<b>11:00-11:45</b>	<b>Plenary Lecture 5: Donald E. Ingber Human Organ Chips for Disease Modeling, Drug Development, and Personalized Medicine (virtual presentation) (Pavillion, Herods)</b>														
	<b>11:45-13:00</b>	<b>Katzir Award (Pavilion Hall, Herods) Announcing best flash talk prizes Closing Remarks</b>														
	<b>13:00-14:00</b>	<b>Pizza and Beers (Pavillion Terrace, Herods)</b>														
	<b>14:00- 18:00</b>	<b>Satellite session – Mind the Gap: How can we crush the gap between the exact sciences and the art of medicine? (Tarish, Dan Hotel)</b>														

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