



Scientific program

Tuesday, 22.2.2022 - Dylan Building, The Port Campus, University of Haifa

Time	
12:30 - 13:30	Gathering and registration (Lobby area)
	Hall: Lilach Hall
13:30 - 15:30 <u>Satellite Session 1</u>	Title: Computational methods in immune and cancer research <i>Chair: Prof. Eitan Rubin (BGU) & Dr. Merav Cohen (TAU)</i>
13:30 - 13:50	Cracking The Genomic Language of Somatic Hypermutation Targeting Dr. Kobi Maman (Tzfat – BIU)
13:50 - 14:10	Dissecting the immune-controlled signaling networks of the tumor microenvironment Dr. Merav Cohen (TAU)
14:10 - 14:30	Computational fingerprinting of immune-mediated pressure on SARS-CoV-2 viral evolution reveals preliminary evidence for immune evasion Prof. Tomer Hertz (BGU)
14:30 - 14:50	What makes a variant? Drivers of evolution during chronic SARS-CoV-2 infections Prof. Adi Stern (TAU)
14:50 - 15:10	Deconvolving the tumor microenvironment Dr. Dvir Aran (Tech)
15:10 - 15:30	A single molecule view of signaling-complexes in health and disease Prof. Eilon Sherman (HUJI)
15:30 - 15:50	Coffee break and poster presentations (Lobby area)
15:50 - 16:50	Keynote 1: Dana Pe'er (NYC, NY)
16:55 - 19:00 <u>Satellite Session 2</u>	Title: Nir Friedman memorial session - lymphocyte receptor repertoires and dynamics <i>Chair: Prof. Uri Hershberg (UoH)</i>
16:55 - 17:00	Ofra Friedman-Golani
17:00 - 17:20	Antigen experience relaxes the organisational structure of the T cell receptor repertoire Dr. Michal Mark (Nir Friedman's lab WIS)
17:20 - 17:40	Genetics and environmental factors shape the antibody repertoire to provide disease biomarkers Prof. Gur Yaari (BIU)
17:40 - 18:00	Induction of T cell exhaustion in the tumor microenvironment Dr. Asaf Madi (TAU)
18:00 - 18:20	T Cell receptors as features in Machine Learning cancer classifications Prof. Sol Efroni (BIU)
18:20 - 18:40	Prediction of specific TCR-peptide binding from large dictionaries of TCR-peptide pairs for personalized cellular therapy Prof. Yoram Louzoun (BIU)
18:40 - 19:00	Quantifying Disease Progression Prof. Shai Shen-orr (Tech)
19:00 - 20:00	Happy hour and poster presentations (Lobby area) Conclude day 1

Time	Early Birds 1	
07:30 - 08:30	Registration (Lobby area)	
	Hall: Ruth Hall	Hall: Green Hall
08:30 - 09:30	Short talks from submitted abstracts <i>Chair: Prof. Didi Meiri (Tech)</i>	Short talks from submitted abstracts <i>Chair: Prof. Michal (Miki) Rahat (Tech)</i>
08:30 - 08:37	1 - Targeting innate immune cells to improve their function under immunosuppressive conditions Dr. Oren Parnas (HUJI)	5 - Short fatty acid chain sulfatides are endogenous ligands for TLR4/MD-2 Dr. Tsaffrir Zor (TAU)
08:37 - 08:45	2 - Conformational Flexibility in Neutralization of SARS-CoV-2 by Naturally Elicited Anti-SARS-CoV-2 Antibodies Dr. Natalia Freund (TAU)	
08:45 - 09:00	3 - Interleukin 23 produced by hepatic monocyte-derived macrophages is essential for the development of murine Primary Biliary Cholangitis Dr. Debby Reuveni (TAU)	6 - RNA editing in pancreatic beta-cells prevents aberrant innate immune activation and diabetes Ehud Knebel (HUJI)
09:00 - 09:15	4 - Harnessing islet heterogeneity to trace the origins of type 1 diabetes Dr. Nadav Sharon (Tech)	7 - Differences in genomic response to hyperinflammation in human gut xenograft and mouse gut have implications for the study of Sars-CoV-2 Prof. Nahum Shpigel (HUJI)
09:15 - 09:30	5 - Nanoscale spatio-mechanical regulation of the immune signaling in cytotoxic lymphocytes Dr. Mark Schwartzman (BGU)	8 - On-chip gut permeability assay reveals barrier-modulating microbiome following chemotherapy Hadar Bootz (BIU)
Hall: Ruth Hall		
09:30	Greetings: Prof. Amiram Ariel Prof. Yuval Shaked	
9:45 - 10:45	Keynote 2: Tumor response and resistance to anti-angiogenic immunotherapy Michelle De Palma (Lausanne, Switzerland)	
10:45 - 11:15	Coffee break (Exhibition area)	
	Hall: Ruth Hall	Hall: Green Hall
11:15 - 13:20 <u>Session 1</u>	A: Visualizing the immune response <i>Chairs: Prof. Mira Barda-Saad (BIU)</i> Prof. Nahum Shpigel (HUJI)	B: Inflammation and Innate Immunity <i>Chairs: Prof. Gabriel Nussbaum (HUJI)</i> Prof. Yona Keisari (TAU)
11:15 - 11:40	Remembering immunity: brain regulation of immune processes Prof. Asya Rolls (Tech)	Cognate Microglia - T regulatory cell interactions control remission from EAE pathology Prof. Steffen Jung (WIS)
11:40 - 12:05	Breast cancer ICAM-1 suppresses metastatic spread to lungs via intravascular killing by circulating neutrophils Prof. Ronen Alon (WIS)	Anti-tumorigenic activities of eosinophils in mucosal tumors Prof. Ariel Munitz (TAU)
12:05 - 12:30	The use of biomedical tools in new frontiers; Immunity and stem cell transplantation for corals Dr. Benyamin Rosental (BGU)	Regulation of innate immune neutrophils by circadian rhythms during acute inflammation Prof. Tsvee Lapidot (WIS)

12:30 - 12:55	How do bacterial infections disrupt antibody-mediated immunity? Prof. Ziv Shulman (WIS)	Reprogramming macrophages for an anti tumor effect Prof. Dror Mevorach (HUJI)
12:55 - 13:20	Monitoring immune cells in the tumors is require for optimizing immunotherapy efficacy Prof. Moshe Elkabets (BGU)	COMMD10 controls the life span and lifestyle of monocytes and macrophages Dr. Chen Varol (TAU)
13:20 - 14:30	Lunch & Poster presentations (Exhibition area)	
	Hall: Ruth Hall	Hall: Green Hall
14:30 - 16:35 Session 2	A: Viral infections: COVID-19 and beyond <i>Chairs: Dr. Natalia Freund (TAU)</i> Prof. Zaid Abassi (Tech)	B: Lymphocyte Activation & Exhaustion <i>Chairs: Prof. Eitan Yefenof (HUJI)</i> Dr. Lior Carmon (Industry)
14:30 - 14:55	TBA Prof. Nadir Arber (Sourasky)	TBA Prof. Michal Lotem (HUJI)
14:55 - 15:20	Subversion of innate immune response during SARS-CoV-2 infection Yaara Finkel (WIS)	TBA Prof. Idit Shachar (WIS)
15:20 - 15:45	SARS-CoV-2 infection: from the beginning until Omicron (the end?) Prof. Michal Mandelboim (Sheba)	TBA Dr. Noga Ron-Harel (Tech)
15:45 - 16:10	Characterizing the infectivity and neutralization resistance against convalescent and post vaccination sera of SARS CoV-2 variants of concern Prof. Ran Taube (BGU)	T cells adaptation to restrained oxidative-phosphorylation (OXPHOS) capacity Prof. Michael Berger (HUJI)
16:10 - 16:35	Dissecting SARS-CoV-2 intra-host variants to study viral-host interactions Dr. Yotam Bar-On (Tech)	Immune Regulatory Roles of the T cell adaptor, Gads Prof. Deborah Yablonski (Tech)
16:35 - 17:05	Coffee break (Exhibition area)	
	Hall: Ruth Hall	Hall: Green Hall
17:05 - 18:20 Session 3	A: Immuno-metabolism and the microbiome <i>Chairs: Prof. Omri Koren (BIU)</i> Dr. Tsaffrir Zor (TAU)	B: Lymphocyte subsets and Immunopathologies <i>Chairs: Prof. Benjamin Sredni (BIU)</i> Dr. Moshe Biton (WIS)
17:05 - 17:30	TBA Dr. Roi Avraham (WIS)	TBA Prof. Naama Geva-Zatorsky (Tech)
17:30 - 17:55	TBA Prof. Vered Padler-Karavani (TAU)	TBA Prof. Orly Avni (BIU)
17:55 - 18:20	Autophagy controls colonic mucus secretion, the gut microbiome and susceptibility to inflammation via suppression of ER stress Dr. Shai Bel (BIU)	Enforced mTorc1 activation as a strategy for the treatment of multiple myeloma Prof. Boaz Tirosh (HUJI)
	Hall: Ruth Hall	
18:20 - 19:20	Keynote 3: Using dynamic and static 2D and 3D multiplex methods to develop a spatio-temporal understanding of immunity Ron Germain (NIH, MD)	
19:20 - 20:20	Keynote 4: The resolution of inflammation: Defective catabasis and the post-acute sequelae of COVID Bruce Levy (Boston, MA)	

Thursday, 24.2.2022 - Rappaport Lecture Halls, The Faculty of Medicine, The Technion

Time	Early Birds 2	
08:00 - 08:30	Registration (Lobby area)	
	Hall: Ruth Hall	Hall: Green Hall
08:30 - 09:45	Short talks from submitted abstracts <i>Chair: Dr. Ruth Perets (Tech)</i>	Short talks from submitted abstracts <i>Chair: Prof. Esther Meyron-Holtz (Tech)</i>
08:30 - 08:45	1 - TAZ facilitates tumor growth via promoting an immune-suppressive tumor microenvironment Anat Gershoni Shoval (WIS)	6 - Oral bacteria accelerate pancreatic cancer development Dr. Elias Saba (HUJI)
08:45 - 09:00	2 - IgG Fc structures elicited by COVID-19 mRNA vaccine are age-dependent and distinct from COVID-19 patients Dr. Tali Feferman (WIS)	7 - Generating a novel Car-Macrophage Therapy for treatment of solid tumors Leen Farhat Younis (TAU)
09:00 - 09:15	3 - Spatial and temporal mapping of immune cells dynamics in breast cancer metastasis Dr. Ido Yofe (WIS)	8 - RASA2 checkpoint ablation in T cells boosts antigen sensitivity and long-term function Dr. Eric Shifrut (TAU)
09:15 - 09:30	4 - Effective eradication of local and metastatic tumor lesions by anti-tumor immune response triggered as result of solid tumors ablation with innovative alpha particle-mediated radiotherapy Prof. Yona Keisari (TAU)	9 - The proteasome regulator PSME4 abrogates response to immunotherapy by promoting a cold-tumor signature Aaron Javitt (WIS)
09:30 - 09:45	5 - An anti-metastatic role for PROS1 in TME myeloid cells is mediated via regulation of inflammation and immune response Prof. Tal Burstyn-Cohen (HUJI)	10 - Mutant p53 governs tumor microenvironment dynamics via exosomes and outer membrane vesicles Dr. Tomer Cooks (BGU)
	Hall: Ruth Hall	
09:45 - 10:45	Keynote 5: Inside the mind of a killer - insights into the cytotoxic mechanisms of Natural Killer cells Carsten Watzl (Dortmund, Germany)	
10:45 - 11:00	The Ronnie Apte Memorial session	
	Angel Porgador (BGU) and Charles Dinarello (Aurora, Colorado)	
11:00 - 11:15	Coffee break (Exhibition area)	
	Hall: Ruth Hall	Hall: Green Hall
11:15 - 13:20 Session 6	A: Innate immunity in Cancer therapy <i>Chairs: Dr. Yaron Carmi (TAU) Prof. Israel Vlodavsky (Tech)</i>	B: Checkpoint pathways, Cancer and Immunotherapy <i>Chairs: Prof. Lea Eisenbach (WIS) Prof. Zvi Fishelson (TAU)</i>
11:15 - 11:40	Immuno-evasion mechanisms of the tumor colonizing bacterium <i>Fusobacterium nucleatum</i> Prof. Ofer Mandelboim (HUJI)	Harnessing the Intracellular Proteome for Novel Immunotherapies in Oncology and Autoimmunity Prof. Yoram Reiter (Tech)
11:40 - 12:05	The role of tumor-associated IL-1 α in the prognosis of TNBC in mice Prof. Elena Voronov (BGU)	TBA Prof. Angel Porgador (BGU)
12:05 - 12:30	Fighting tumor-host interactions in 3 dimensions Prof. Ronit Satchi-Fainaro (TAU)	Potential Novel Immunotherapeutic Approaches: From Molecular Mechanisms & Signaling Dynamics to Function Prof. Mira Barda-Saad (BIU)
12:30 - 12:55	Reversed immuno-oncology in melanoma Prof. Gal Markel (TAU)	Opposing Roles of Tertiary Lymphoid Structures in Liver Cancer

		Dr. Einat Cinnamon (HUJI)
12:55 - 13:20	Neutrophil Specific Targeting as a Novel Mode of Immunotherapy Prof. Zvika Granot (HUJI)	Chimeric switch receptors to the rescue of TCR/CAR T-cells to improve immunotherapy Prof. Cyrille Cohen (BIU)
13:20 - 14:20	Lunch & Poster presentations (Exhibition area)	
Hall: Ruth Hall		
14:20 - 15:20	Keynote 6: Human immune responses to SARS-CoV-2 infection or vaccination Michel Nussenzweig (NYC, NY)	
	Hall: Ruth Hall	Hall: Green Hall
15:20 - 17:25 <u>Session 7</u>	A: Tumor Microenvironment and Immuno-oncology <i>Chairs: Prof. Tal Burstyn-Cohen (HUJI)</i> Prof. Isaac Witz (TAU)	B: Cancer and its microenvironment at the single-cell level <i>Chairs: Prof. Tamar Geiger (WIS)</i> Dr. Oren Parnas (HUJI)
15:20 - 15:45	The immunological state in the tumor microenvironment: toward the identification of new predictive biomarkers for immunotherapy Prof. Yuval Shaked (Tech)	The human tumor microenvironment at single cell resolution Prof. Shalev Itzkovitz (WIS)
15:45 - 16:10	Turning cold tumors into hot: a CXCR3 and CCR8 story Prof. Nathan Karin (Tech)	Surprising role of melanoma extracellular vesicles in tumor immunity Prof. Carmit Levy (TAU)
16:10 - 16:35	Systemic instigation of neuroinflammation facilitates brain metastasis Prof. Neta Erez (TAU)	Identifying amino acid cross-talks between the tumor and the host for benefiting cancer diagnosis and therapy Prof. Ayelet Erez (WIS)
16:35 - 17:00	Tumor cell-autonomous and PD-1-induced pro-metastatic activities of PD-L1 in human breast cancer Prof. Adit Ben-Baruch (TAU)	Systemic reprogramming of bone marrow derived neutrophils in glioblastoma Prof. Dinorah Freidman-Morvinski (TAU)
17:00 - 17:25	Targeting EMMPRIN/CD147 to block the metastatic cascade Prof. Michal (Miki) Rahat (Tech)	Cell-in-cell tumor formation provides spatial protection from T cell immunity Prof. Yaron Carmi (TAU)
17:25 - 17:55	Coffee break (Exhibition area)	
Hall: Ruth Hall		
17:55 - 18:55	Keynote 7: Natural killer cell response to viral infection Lewis Lanier (San Francisco, CA)	
	Hall: Ruth Hall	Hall: Green Hall
18:55 - 19:10	Flash talks from submitted abstracts <i>Chairs: Dr. Tomer Cooks (BGU)</i>	Flash talks from submitted abstracts <i>Chairs: Prof. Vered Padler-Karavani (TAU)</i>
18:55 - 19:00	1 - Type I Interferon Transcriptional Network Regulates Expression of Co-Inhibitory Receptors in Human T cells Shai Dulberg (TAU)	4 - Harnessing the STING-IFN β axis to enhance the resolution of inflammation Nofar Ben Jashar (UoH)
19:00 - 19:05	2 - A physiological counterpart for endocrine autoimmune disease Yael Korem Kohanim (WIS)	5 - COMMD10 regulates adipose tissue macrophage control of energy expenditure Dr. Nathan Gluck (TAU)
19:05 - 19:10	3 - Cancer progression as a learning process Aseel Shomar (Tech)	
Hall: Ruth Hall		
19:10 - 19:25	Concluding Remarks and Poster Prize	

Meeting's Academic and Local Committees: Amiram Ariel, Yuval Shaked, Roi Gazit, Angel Porgador, Mira Barda-Saad, Uri Hershberg, Deborah Yablonski, Miki Rahat