



# The 31<sup>th</sup> ISFN Annual Meeting

## 12-14 January, 2025

Dan Hotel | Queen Of Sheba Hotel, Eilat



KALEIDOSCOPE  
Conferences Events Exhibitions

### Sunday, January 12th 2025

11:00-13:00 Welcome, Check in

13:00-14:00 Lunch

14:00-15:15 Opening, Plenary Lecture 1

15:30-17:30

A1	A2	A3	A4	A5	A6
<b>Boaz Barak</b>	<b>Chaya Kalcheim</b>	<b>Illana Gozes, Haitham Amal</b>	<b>Rita Schmidt, Edna Furman-Haran</b>	<b>Ofer Yizhar</b>	<b>Arseny Finkelstein, Alon Rubin</b>
<b>Myelin and oligodendrocytes dysfunction in neuropathology</b>	<b>Sensory systems: from development to function</b>	<b>Psychiatric disorders: from molecular mechanisms to drug targets</b>	<b>Functional differences between individuals - what can we learn from long and short term signal variations in the human brain</b>	<b>Beyond "adult male mice": circuits and behavior throughout the lifespan</b>	<b>Using large cellular populations to reveal the neuronal code</b>
<b>Session Speakers -</b> Inbar Fischer, Tal Iram, Elior Peles, Michal Ben-Shachar, Boaz Barak	<b>Session Speakers -</b> Chaya Kalcheim, Adi Salzberg, Alex Binshtok, Ilan Lampl	<b>Session Speakers -</b> Hermona Soreq, Illana Gozes, Hanokh Khaphzan, Shashank Ojha	<b>Session Speakers -</b> Aviv Mezer, Hadar Kolb, Tal Geffen, Rita Schmidt, Ido Tavor, Gerry Leisman, Daniel Reznik	<b>Session Speakers -</b> Dana Rubi Levy, Maithe Arruda-Carvalho, Daniel Zelmanoff, Shay Stern, Ofer Yizhar' Anat Kahan	<b>Session Speakers -</b> Jan Grudermann, Yael Bitterman, Noga Mudrik, Lilach Avitan, Alon Rubin, Arseny Finkelstein, Odeya Marmor
<b>Inbar Fischer</b> White matter abnormalities in a mouse model for autism with a human-based mutation in shank3 gene	<b>Chaya Kalcheim</b> Regulation of dynamic cell fate transitions during spinal cord development	<b>Hermona Soreq</b> Which processes control novel cholinergic-targeting micrnas integrated into the primate genome?	<b>Aviv Mezer</b> Substantia nigra and putamen asymmetries explain motor dysfunction in Parkinson's disease	<b>Dana Rubi Levy</b> Tracing life's arc through behavior	<b>Jan Grudermann</b> Ensemble state changes in sensory thalamus represent learned outcomes

15:30–17:30	A1	A2	A3	A4	A5	A6
	<p><b>Tal Iram</b> Young CSF restores oligodendrogenesis and memory in aged mice via Fgf17</p> <p><b>Elior Peles</b> Differential subcellular distribution of SynCAM/ Cadm proteins in neurons guides myelin targeting</p> <p><b>Michal Ben-Shachar</b> Long-range connections in the human brain and their contribution to cognition</p>	<p><b>Adi Salzberg</b> Mechanical forces in proprioceptor development and function</p> <p><b>Alex Binshtok</b> Molecular and structural plasticity of nociceptive peripheral terminals underlying pathological pain</p> <p><b>Ilan Lampl</b> Isolated correlates of somatosensory perception in the mouse cortex</p>	<p><b>Illana Gozes</b> Adnp/nap (davunetide) protection in brain diseases is sex-dependent</p> <p><b>Hanokh Khaphzan</b> The role of mitochondrial dysfunction in the early brain development of angelman syndrome</p> <p><b>Shashank Ojha</b> A Crosstalk between nitric oxide and mTOR signaling pathway in autism spectrum disorder (ASD)</p>	<p><b>Hadar Kolb</b> What can we learn from long and short-term signal variations in magnetic resonance imaging of patient</p> <p><b>Tal Geffen</b> Functional connectivity gradients and thought-patterns in schizophrenia</p> <p><b>Rita Schmidt</b> Increasing sensitivity in fMRI to study individual differences – advantages of high field human MRI</p> <p><b>Ido Tavor</b> Relating Activity and Connectivity in the Learning Brain</p> <p><b>Gerry Leisman</b> Living the inverted “U”: Connecting the ups and downs from fetus to grave in movement and cognition</p> <p><b>Daniel Reznik</b> Dissociating Distinct Cortical Networks Associated with Subregions of the Human Medial Temporal Lobe</p>	<p><b>Maithe Arruda-Carvalho</b> Maturation of Prefrontal Cortex Pathways Modulating Emotional Learning and Stress Sensitivity</p> <p><b>Daniel Zelmanoff</b> Oxytocin signaling regulates maternally directed behavior during early life</p> <p><b>Shay Stern</b> The dynamic structure of behavioral individuality across developmental timescales</p> <p><b>Anat Kahan</b> The afternoon role of the circadian VIP neurons in regulating the mammalian estrous cycle</p>	<p><b>Yael Bitterman</b> The distributed code of goal directed behavior</p> <p><b>Noga Mudrik</b> Decomposed linear dynamical systems (dlDs) for studying neural dynamics within &amp; between brain areas</p> <p><b>Lilach Avitan</b> Cracking the social code using whole-brain recording of the larval zebrafish</p> <p><b>Alon Rubin</b> Internal structure of neuronal codes for space in hippocampus and cortex</p> <p><b>Arseny Finkelstein</b> Multi-regional and local mechanisms of cortical communication during goal-directed behavior</p> <p><b>Odeya Marmor</b> Brain wide network within and between naturally socializing mice</p>

17:30–18:00 *Coffee Brake*

18:00–19:00 **Plenary Lecture 2**

19:00–20:30 *Dinner*

20:30–22:30 Beer and **Poster Session A** – All presenters stand by their posters

# Monday, January 13th, 2025

08:30–10:3

B1	B2	B3	B4	B5	B6
<b>Tal Laviv</b>	<b>Itamar Kahn</b>	<b>Benedetta Heimler</b>	<b>Oded Rechavi</b>	<b>Abigail Livny-Ezer</b>	<b>Dan Frenkel</b>
<b>Molecular mechanisms of synaptic plasticity in the developing and adult brain</b>	<b>Circuit mechanisms of motor learning and control in animals and humans</b>	<b>Cognitive-motor-affective interactions during naturalistic behaviors in virtual reality</b>	<b>“Cogito, ergo sum” – how perception shapes our physiology</b>	<b>The use of Artificial Intelligence (AI) in medical neuroimaging, will it change practice?</b>	<b>Impairment in metabolic pathways in neurodegenerative disease</b>
<b>Session Speakers –</b> Alberto Cruz-Martin , Satoshi Kida, Shira Knafo, Ivo Spiegel, Sharbel Eid, Leore Heim	<b>Session Speakers –</b> Hadas Benisty, Roy Mukamel, Raffaella Tonini, Ariel Tankus	<b>Session Speakers –</b> Michal Ramot, Rony Hirschhorn, Ramit Ravona, Prof. Plotnik, Benedetta Heimler	<b>Session Speakers –</b> Shamgar Ben-Eliyahu, Noam Sobel, Lior Rozenkrants, Lior Laufer	<b>Session Speakers –</b> Abigail Livny-Ezer, Dr. Yaara Erez, Firas Mawase, Maya Kadushin, Tzipi Horowitz-kraus, Sarah Stern	<b>Session Speakers –</b> Heather Ferris, Jens Pahnke, Ronit Pinkas-Kramarski, Dan Frenkel, Hagit Eldgar Finkelman, Sapir Golan Shekhtman
<b>Alberto Cruz-Martin</b> A non-canonical mechanism of complement 4-driven cortical synaptic loss	<b>Hadas Benisty</b> M1 reorganization of layer 2-3 network dynamics underlying motor learning	<b>Michal Ramot</b> Harnessing the full power of naturalistic paradigms for the study of human behavior	<b>Shamgar Ben-Eliyahu</b>	<b>Abigail Livny-Ezer</b> Diagnosis, outcome prediction and precision medicine in brain disorders using connectomics and ai	<b>Heather Ferris</b> Diabetes and Neuro- degenerative Diseases – An Endocrine Cross Talk
<b>Satoshi Kida</b> Roles of the hippocampus in fear memory reconsolidation and extinction	<b>Roy Mukamel</b> Linking actions to their sensory consequences in the human brain	<b>Rony Hirschhorn</b> Exploring Unconscious Processing with Immersive Virtual Reality	<b>Noam Sobel</b>	<b>Yaara Erez</b> Augmenting multi-modality neuroimaging in patients with brain tumors using ECOG, fMRI and AI	<b>Jens Pahnke</b> Abca transporters modulate essential metabolic pathways and protect against neurodegeneration
<b>Shira Knafo</b> Exploring the Interplay of Hippocampal TACR3 and Systemic Testosterone in the Regulation of Anxiety	<b>Raffaella Tonini</b> Subregion specificity of serotonin signal at dorsal striatal circuits shapes behavioral switching in response to reward	<b>Ramit Ravona</b> A new biomarker for apathy and depression in cognitive impairment based on physiological reactivity	<b>Liron Rozenkrantz</b> How beliefs shape reality: from information processing to physical health	<b>Firas Mawase</b> Leveraging Artificial Intelligence for Advanced Neural Prosthetics: Enhanced Detection of Dexterous	<b>Ronit Pinkas-Kramarski</b> Impaired autophagy in apoE expressing cells.
<b>Ivo Spiegel</b> The genomic basis of behavioral state-dependent modulation of sensory processing and neural circuit	<b>Ariel Tankus</b> Speech features neural encoding in the thalamus of parkinson’s disease and essential tremor patients	<b>Meir Plotnik</b> More than meets the eyes – gait modulations due to gravity	<b>Lior Laufer</b> Organization of temporal patterns of behavior across a full developmental trajectory	<b>Maya Kadushin</b> (from Ido Tavor’s lab) Predicting cognitive abilities from brain connectivity using artificial intelligence	<b>Dan Frenkel</b>
<b>Sharbel Eid</b> Deciphering the role of cell- specific MeCP2 dynamics in neuronal function and dysfunction		<b>Benedetta Heimler</b> Evaluating cognitive-motor interactions in Parkinson’s disease using a novel VR- based assessment		<b>Tzipi Horowitz-kraus</b> Does AI provide new information or validate existing findings? Current and future directions in dyslexia	<b>Hagit Eldgar Finkelman</b> Inhibition of gsk-3 alpha as a protective strategy against neurotoxicity and oxidative stress
<b>Leore Heim</b> Channeling Mitochondrial Calcium for Homeostatic Regulation of Hippocampal Activity					<b>Sapir Golan Shekhtman</b> Regional Fat is Related to Lower Cognitive Functioning and Brain Volumes in High AD-Risk Males

## 10:45–13:45 Eilat student's panel at queen of Sheba hotel

11:00–13:00	C1	C2	C3	C4	C5	C6
	<b>Tawfeeq Shekh-Ahmad</b>	<b>Dmitri Rusakov</b>	<b>Tal Burstyn-Cohen</b>	<b>Bruce Hope</b>	<b>Gali Umschweif</b>	<b>Eilat Students session</b>
	<b>Recent Advances in Gene Therapy for Neurological Disorders</b>	<b>Astroglial regulation of synaptic circuits</b>	<b>Cellular interactions guiding neural development and function developing nervous system</b>	<b>Molecular, cellular, and circuit mechanisms of drug-related learning</b>	<b>cellular and molecular regulation of stress-induced behavior</b>	
	<b>Session Speakers -</b> Tawfeeq Shekh-Ahmad, Moran Rubinstein, Rami Aqeilan, Daniel J. Steinberg	<b>Session Speakers -</b> Christian Henneberger, Nathalie Rouach, David Holcman, Dmitri Rusakov	<b>Session Speakers -</b> David Shprinzak, Orit Shefi, Gil Levkowitz, Roberta Fresia, Dalit Sela-Donenfeld,	<b>Session Speakers -</b> Itay Shalom, Bruce Hope, Rami Yaka, Segev Barak, Yoni Kupchik	<b>Session Speakers -</b> Gali Umschweif-Nevo, Gal Richtel-Levin, Dorit Farfara-Cohen, Alon Chen, Sarah Stern, Alaa saleh	
	<b>Tawfeeq Shekh-Ahmad</b> CNS-targeted Antioxidant Gene Therapy for Treating Epilepsy	<b>Christian Henneberger</b> Multimodal and multicellular control of NMDA receptors	<b>Shahar Kasirer</b> Mechanics of hair cell regeneration in the inner ear	<b>Itay Shalom</b> Probing the circuit underlying cocaine-induced stereotypies with a novel behavior analysis platform	<b>Gali Umschweif-Nevo</b> Neurensin-2: a novel cell-type-specific stress-responsive protein	
	<b>Moran Rubinstein</b> Dravet syndrome mouse models for novel gene therapy development	<b>Nathalie Rouach</b> Astroglial regulation of maternal behavior	<b>Orit Shefi</b> Neuronal interactions with nano-based platforms for directing neuronal growth engineering	<b>Bruce Hope</b> Cell types and unique transcriptomic alterations of neuronal ensembles activated by cocaine-induced	<b>Gal Richtel-Levin</b> The dorsal dentate gyrus - a surprising player in stress vulnerability and resilience	
	<b>Rami Aqeilan</b> Neuron-Specific AAV-Mediated WWOX Gene Therapy Rescues Mortality and Seizure Phenotypes in WOREE Syndrome Models	<b>David Holcman</b> Reconstructing glial functional networks from calcium times series	<b>Gil Levkowitz</b> Neural plate progenitors give rise to both anterior and posterior pituitary cells	<b>Rami Yaka</b> Role of the translational machinery in cocaine-induced behaviours	<b>Dorit Farfara-Cohen</b> Serotonin regulates immune cell infiltration to the brain compartment via the pineal gland	
	<b>Daniel J. Steinberg</b> Epilepsy in a dish: Using brain organoids for studying WWOX-related neurological disorders and gene therapy	<b>Dmitri Rusakov</b> Monitoring synaptic fidelity and perisynaptic environment in the intact brain	<b>Roberta Fresia</b> Protein s (pros1) regulates microglial development and function	<b>Segev Barak</b> Long-term alcohol consumption enhances accumbal myelination and impairs neural connectivity	<b>Alon Chen</b>	
			<b>Dalit Sela-Donenfeld</b> Hindbrain boundaries-niches of neural progenitor/stem cells regulated by their extracellular matrix	<b>Yoni Kupchik</b> Synaptic plasticity alterations in ventral pallidal circuitry after abstinence from cocaine	<b>Alaa saleh</b> Biophysical mechanism underlying epigenetically inherited stressful behavior	

13:00–14:00 Lunch

14:00–15:00 Plenary Lecture 3

15:30–17:30	D1	D2	D3	D4	D5	D6
	<b>Yuval Nir</b>	<b>Haim Sompolinsky</b>	<b>Ramon Birnbaum</b>	<b>Pablo Blinder</b>	<b>Omer Revah</b>	<b>Orit Shefi</b>
	<b>Sleep: unconscious restoration, from molecules to behavior</b>	<b>Neuroscience of Knowledge</b>	<b>Neuronal transcription regulation</b>	<b>New insights into Brain Barriers development and function</b>	<b>Human brain organoids in neurodevelopment and disease</b>	<b>Neuromechanics and Neuroengineering</b>
	<b>Session Speakers –</b> Lior Appelbaum, Refaela Atsmon, Halen Baker, Florian Mormann, Yuval Nir, Anat Arzi	<b>Session Speakers –</b> Haim Sompolinsky, Edmond and Lily Safra, Davide Zoccolan, Rodrigo Quian Quiroga, Winrich Freiwald, Mathew Diamond	<b>Session Speakers –</b> Eran Mehsorer, Evan Eliot, Dan Bracha, Rawan Alatawna, Igor Ulitsky, Ramon Birnbaum	<b>Session Speakers –</b> Karina Yaniv, Ayal Ben-Zvi, Tali Ilowitz, Preethi Rajamannar, Nir Cafri, Meshi Zorsky	<b>Session Speakers –</b> Orly Reiner, Abed Mansour, Omer Revah, Miri Danan Gotthold, Gal Lazarus	<b>Session Speakers –</b> Vittoria Raffa, Yossi Yovel, Matan Mussel, Adir Yarmus
	<b>Lior Appelbaum</b> Sleep and repair of DNA breaks across evolution	<b>Haim Sompolinsky, Edmond and Lily Safra</b> Geometry of Neural Representations: From Vision to Language	<b>Eran Mehsorer</b> Mutant Huntingtin enhances neuronal differentiation and disrupts global DNA methylation in human iPSC-derived cerebral organoids	<b>Karina Yaniv</b> Mechanisms underlying the establishment and functionality of the Neurovascular Unit	<b>Orly Reiner</b> MorphoNeuroChip: Unveiling Brain Malformations' Secrets at the Molecular Level	<b>Vittoria Raffa</b> Axon growth in response to pico-newton mechanical force: from molecular mechanisms to applications
	<b>Refaela Atsmon</b> Homeostatic regulation of CA1 firing rate set points and contextual memory retrieval in mice	<b>Davide Zoccolan</b> Seeing what you hear: how sound power modulates rat visual perception	<b>Evan Eliot</b> Forebrain neuronal Smc3 regulates appetite, weight, and metabolic health	<b>Ayal Ben-Zvi</b> Unique features of the arterial Blood-Brain Barrier	<b>Abed Mansour</b> A novel neuroimmune human brain organoid model to study microglia in health and disease	<b>Yossi Yovel</b> Using AI to model animal navigation
	<b>Halen Baker</b> Sleep and sedation in basal ganglia in health and Parkinson's disease	<b>Rodrigo Quian Quiroga</b> A unique coding of memories in the human hippocampus	<b>Dan Bracha</b> Probing and Reprogramming Transcriptionally Active Liquid Bodies in Living Cells	<b>Tali Ilowitz</b> Nanobubble-mediated BBB opening as a platform for enhanced delivery to brain capillaries	<b>Omer Revah</b> Using stem cells to build a model of the human cortex in vivo	<b>Matan Mussel</b> On spikes and sound in lipid membranes
	<b>Florian Mormann</b> Memory consolidation by reactivation of human concept neurons during sleep reflects contents, not sequence of events	<b>Winrich Freiwald</b> Neuroscience of Knowledge: from Face Perception to Person	<b>Rawan Alatawna</b> Transcription factors and their corresponding regulatory elements during neuronal differentiation	<b>Preethi Rajamannar</b> Oxytocin may regulate its own uptake via blood flow dynamics	<b>Miri Danan Gotthold</b> Early neurodevelopment at the single-cell resolution	<b>Adir Yarmus</b> Mechanical Dynamics of Neurons Probed With Atomic Force Microscopy
	<b>Yuval Nir</b> Sleep and memory consolidation in health and disease	<b>Mathew Diamond</b> Neuronal mechanisms underlying a single (not just the average) decision	<b>Igor Ulitsky</b> Regulation of neuronal chromatin environments by long noncoding RNAs	<b>Nir Cafri</b> Blood Brain Barrier Dysfunction in Drug Resistance Epilepsy: A Multi-Center Feasibility Study	<b>Gal Lazarus</b> Collaborating with Patient Advocacy Groups to Facilitate Drug Development for NDD	
	<b>Anat Arzi</b> Unconsciousness Dynamics: From Sleep to Disorders of Consciousness		<b>Ramon Birnbaum</b> Deciphering gene regulatory elements during inhibitory interneuron differentiation using deep neural	<b>Meshi Zorsky</b> Exosomes from neural cells enhance barrier functions in iPSC-based model of the human BBB		

17:30–18:00 *Coffee break*

18:00–19:00 **Plenary Lecture 4**

19:00–19:30 **ISFN General Assembly Business Meeting – Regular and emeritus members only – better half an hour than zoom meeting**

19:00–20:30 *Dinner*

20:30–22:30 beers and **Poster Session B**

22:30–24:30 DJ party



# Tuesday, January 14th, 2025

08:30–10:30

E1	E2	E3	E4	E5	E6
<b>Ehud Cohen</b>	<b>Oren Shriki</b>	<b>Dori Derdikman, Yaniv Ziv</b>	<b>Gadi Gilam, Alexander Binshtok</b>	<b>Hanna Keren</b>	<b>Marc Deffains</b>
<b>Cellular proteostasis mechanisms in health and disease</b>	<b>Artificial neural networks as models of biological sensory processing</b>	<b>Learning and Memory: From mice to humans</b>	<b>Modulating pain from the terminal to the brain – Basic and translational insights into mechanisms of pathological pain</b>	<b>Virtual environments for the study of human behavior and perception</b>	<b>Rethink about the role of the external globus pallidus in basal ganglia functions</b>
<b>Session Speakers –</b> Avraham Ashkenazi, Simone Engelender, Adrian Israelson, Ehud Cohen, Ronit Ilouz	<b>Session Speakers –</b> Oren Shriki, Tal Golan, Galit Yovel, Omri Barak	<b>Session Speakers –</b> Itzhak Fried, Dori Derdikman, Yaniv Ziv	<b>Session Speakers –</b> Avraham Yaron, Rachely Buttermann, Irit Weissman-Fogel, Gadi Gilam	<b>Session Speakers –</b> Tom Schonberg, Elana Zion-Golumbic, Roy Salomon, Hanna Keren, Adi Lustig	<b>Session Speakers –</b> Thomas Boraud, Hagai Bergman, Shiran Katabi, Dana Cohen
<b>Avraham Ashkenazi</b> Regulators of $\alpha$ -synuclein secretion and spread in Parkinson's disease	<b>Oren Shriki</b> Sensory recurrent networks: optimal information representation, hallucinations, and synaesthesia	<b>Itzhak Fried</b>	<b>Avraham Yaron</b> The kinesin family member 2a (kif2a) gates nociception	<b>Tom Schonberg</b> XR as a tool to densely study human behavior	<b>Thomas Boraud</b> Contribution of the non-human primate external globus pallidus in decision-making
<b>Simone Engelender</b> A novel decoy peptide strategy to prevent $\alpha$ -synuclein proteotoxicity in Parkinson's disease and other $\alpha$ -synucleinopathies	<b>Tal Golan</b> Disentangling representational geometries in neural network models of human perception	<b>TBD</b>	<b>Rachely Buttermann</b> Inflammation induced plasticity in pain-related spinal cord networks underlying pathological pain	<b>Elana Zion-Golumbic</b> The Neural Underpinnings of Attention and Distraction in (virtual) Realistic Environments	Student of <b>Hagai Bergman</b> Discharge features of the non-human primate external globus pallidus during sleep
<b>Adrian Israelson</b> Targeting low levels of MIF expression as a potential therapeutic strategy for ALS	<b>Galit Yovel</b> What can deep learning tell us about human face recognition?	<b>Dori Derdikman</b> Active experience, not time, determines within day representational drift in dorsal CA1	<b>Irit Weissman-Fogel</b> Reinforcement of pain modulation– a mechanism based treatment for pain relief in chronic pain	<b>Roy Salomon</b> Keep it Real- Using virtual reality to understand real human behaviors	<b>Shiran Katabi</b> Dichotomous Activity and Function of the LFD and HFD neurons in the NHP GPe
<b>Ehud Cohen</b>	<b>Omri Barak</b> Aligned and oblique dynamics in recurrent neural networks	<b>Yaniv Ziv</b>	<b>Gadi Gilam</b> The Neural Bases of Emotion Regulation of Pain in Chronic Pain	<b>Hanna Keren</b> Studying mood dynamics in a rich virtual context	<b>Dana Cohen</b> Multidimensional encoding in the rodent external globus pallidus
<b>Ronit Ilouz</b> Mutation in Protein Kinase A (PRKAR1B) gene drives pathological mechanisms of Neurodegeneration				<b>Adi Lustig</b> Heart rate related measures response to visual-physical incongruent walking conditions	

10:30–11:00 *Coffee Brake*

F1	F2	F3	F4	F5	F6
Lior Mayo	Abed Mansour	Yoav Livneh	Gilad Silberberg, Ilan Lampl	Gaddi Blumrosen	Michal Rivlin
<b>Here and Back Again, A Neuroimmunology's Tale</b>	<b>Stem-cells based technologies to study brain disorders</b>	<b>Brain-body interactions in the insular cortex</b>	<b>Structure and function of interhemispheric communication</b>	<b>Monitoring and Diagnostics of neurological disease and disorders at home environment settings</b>	<b>Coding principles in sensory and motor systems: breaking the rules</b>
<b>Session Speakers –</b> Lior Mayo, Michal Schwartz, Eran Blacher, Alon Monsenero, Itay Zalayat	<b>Session Speakers –</b> Shani Stern, Zeev Melamed, Gad Vatine, Eran Hornstein, Mahmood Ali, Ahd hamdan	<b>Session Speakers –</b> Sarah Stern, Yael Prilutski, Yoav Livneh, Stav Shtiglitz, Kolatt Chandran Sailendrakumar, Kobi Rosenblum, Asya Rolls	<b>Session Speakers –</b> Katayun Cohen-Kashi, Noa Rivlin, Yael Oran, Yaniv Assaf, Netanel Ofer	<b>Session Speakers –</b> Hadas Lewy, Jason Friedman, Inbal Maidan, Gaddi Blumrosen, Hila Gvirtz, Joachim Beharn	<b>Session Speakers –</b> Shiko Parnas, Rony Azouz, Mati Joshua, Serena Riccitelli, Inbal Shainer, Elyashiv Zangen
<b>Lior Mayo</b>	<b>Shani Stern</b> Seeking Convergence and Divergence between Autism and Schizophrenia using genomic tools and iPSC patient derived neurons	<b>Sarah Stern</b> Insular cortex circuits mediating dlexible feeding behaviors	<b>Katayun Cohen-Kashi</b> Behavioral states control binocular vision through input-specific mechanisms	<b>Hadas Lewy</b> Research and Development of digital parameters for functional and cognitive assessment at home	<b>Shiko Parnas</b> Intraglomerular excitation along with interglomerular inhibition are required for odor separation
<b>Michal Schwartz</b> Why does the immune system fall short in dementia and could be restored by immunotherapy?	<b>Zeev Melamed</b> Rescue of impaired axonal regeneration in ipsc-derived motor neurons affected by tdp-43 pathology	<b>Yael Prilutski</b> Interoceptive predictions during hunger and thirst in the insular cortex	<b>Noa Rivlin</b> Behavioral Control by Claustrо-Cortical Circuits	<b>Jason Friedman</b> Evaluating changes in dexterity in people with Parkinson's disease at home using an electric piano	<b>Rony Azouz</b> Reliability and Stability of Tactile Perception in Rodents
<b>Eran Blacher</b> Mapping the immune response in the aging gut at the setting of stroke	<b>Gad Vatine</b> Modeling Neurological Disorders at the Blood Brain barrier (BBB)	<b>Yoav Livneh</b> Brain-body interactions: Sensations and predictions in the insular cortex	<b>Yael Oran</b> Reduction of corpus callosum activity during whisking leads to interhemispheric decorrelation	<b>Inbal Maidan</b> Parkinson disease severity evaluation from home based real-life facial video	<b>Mati Joshua</b> High-Dimensional Encoding of Movement by Single Neurons in Basal Ganglia Output
<b>Alon Monsenero</b> A neuro-endocrine-immune perspective to age-related neurodegenerative disorders	<b>Eran Hornstein</b> AI-driven deep organellar phenotyping of human iPSC-derived neurons	<b>Stav Shtiglitz</b> Cortical interoceptive predictions for neural control of nutritional choice	<b>Yaniv Assaf</b> The evolution of interhemispheric connectivity	<b>Gaddi Blumrosen</b> Behavioral Based Neurological condition assessment: roadmap, and feasibility with ADHD diagnosis from real-life video	<b>Serena Riccitelli</b> Retinal ganglion cells encode the direction of motion outside their classical receptive field
	<b>Mahmood Ali</b> Neural precursor cells from HIKESHI-related Hypo-myelinating Leukodystrophy (HHL) patients have impaired response to heat shock-induced stress	<b>Kolatt Chandran Sailendrakumar</b> Representation of Taste Valence Encoding in Anterior Insula (aIC) Projection Neurons	<b>Netanel Ofer</b> Branch-specific spike failures at distal axons in mouse cortex in vivo	<b>Hila Gvirtz</b> Automatic Alexithymia recognition from remote interviews with LLM models	<b>Inbal Shainer</b> Positional information drives distinct traits in transcriptomically identified neuronal types



**Itay Zalayot**

Dissecting the effects of distinct VTA projections on peripheral immunity

**Ahd hamdan**

Immunocompetent Human Midbrain Organoids to Study Neuroinflammation in Parkinson's Disease

**Kobi Rosenblum**

Intra-insula Circuit Mediates the Association between External and Internal Sensory Information

**Asya Rolls**

Immunoception: immune representation in the brain

**Joachim Behar**

Sleep physiological biomarkers derived from continuous seamless monitoring sleep stages abnormalities at home

**Elyashiv Zangen**

Light-Responsive Neurons in the Medial Prefrontal Cortex Encode Light Intensity

13:00-14:00 *Lunch*

**14:00-15:00 Announcement of Prizes: Best mentor Prize, Poster Competition Prizes**

*END OF ISFN 2025*