ISBME
Israeli Society for Biomedical Engineering

The Engine of Growth for a Better Life

International Convention Center Haifa | 9 June 2026

PRELIMARY PROGRAM

As of 17 May, 2026 (subject to changes)

08:00-09:00	*Registration, Networking and Hanging of Posters*	*Foyer*
09:00-10:15	Parallel 1: Brain Engineering & Neuromodulation Technologies **Chairpersons**: Dekel Rosenfeld & Lior Lev-Tov	Hadas Hall

Bioinspired Nanoscale Intra and Extracellular Optoelectronic Biointerface
Hemi Rotenberg, Technion Israel Institute of Technology, Israel

Development of a Magneto-Conductive Implant for Neural Regeneration and Modulation in Peripheral Nerve Injuries
Ariella Nouman, Tel Aviv University, Israel

Breaking Barriers with Bubbles: Ultrasound Nanotechnology for Brain Therapy and Molecular Diagnostics
Tali Ilovitsh, Tel Aviv University, Israel

Fabrication of a Magnetic Implant for Treating Nerve Injuries
Gal Shklarski Shchori, Tel Aviv University, Israel

Electrotherapeutic Modulation of Cerebral Vasospasm: A Novel Approach Enabled by Neoflow Technologies
David Skorohod, Neoflow Technologies, Israel

Sleep-Guided Closed-Loop Deep Brain Stimulation for Disease-Modifying Neuromodulation in Parkinson's Disease
Samer Abboud, Pulsetech Medical, Israel

09:00-10:15	Parallel 2: Bio Convergence from Lab to Market **Chairpersons**: Yaakov Diminsky & Shai Melcer	Oren Hall

Medical Bio Convergence in Israel
Shai Melcer, Israel Innovation Authority, Israel

Nanopore-AI: Combining Biology, Electronics and Machine Learning to Solve Emerging Biomedical Challenges
Amit Meller, Technion Israel Institute of Technology, Israel

Intraoperative Sensor and Alerting System for Phacoemulsification
Yoav Nahum, Rabin Medical Center, Israel

Bio Convergence-Driven In Vitro Models for Studying Cardiovascular System Interactions in Health and Disease
Moran Yadid, Bar Ilan, Israel

Chemo Genetic Method for Treating Parkinson`s Disease
Fadi Assaf, Grace Gene Therapy, Israel

From Lab to Market in Bio Convergence
Yaakov Diminsky, GenoSmart, Israel

09:00-10:15	Parallel 3: Biomechanics and Human Performance **Chairpersons**: Sara Naftali & Mark Levy	Tamar Hall

Comparative Finite Element Evaluation of a Hybrid Total Wrist Arthroplasty Design: Biomechanical Analysis of Load Transfer and Stress Distribution
Moshe Brand, Ariel University, Israel

From Injury to Performance: Wearable Biomechanics for Improving Human Movement
Arielle Fischer, Technion Israel Institute of Technology, Israel

Reverse Biomimetics of Structural Mechanisms in Soft Biological Composites
Mirit Sharabi, Ariel University

Unified Multimodal E-Skin: A Single-Layer Nanocomposite Platform with Synergistic Tactile, Thermal, and Magnetoreceptive Capabilities
Amos Bardea, Holon Institute of Technology (HIT)

Engineering Impact on Treatment of the Musculoskeletal System: Advances in Orthopaedics and Rehabilitation
Mark Levy, Orthopaedic Regenerative Medicine Engineering Impact Musculoskeletal System, Israel

An Integrated 3D Platform for Micro- and Nanobubble Cavitation Dynamics under Low-Frequency Ultrasound
Ilia Mezdrokhin, Tel Aviv University, Israel

09:00-10:15	Parallel 4: Medical Imaging, Image Processing and Devices **Chairperson**: Or Perlman	Rimon Hall

AI in Molecular Imaging
Omri Ziv, GE Healthcare, Israel

Ultrafast Dynamic Contrast-Enhanced MRI with Flexible Temporal Resolution aided Deep Learning
Eddy Solomon, Technion Israel Institute of Technology, Israel

Revealan™, AI-Enabled Robotic Ultrasound: The "Da Vinci" of the Imaging World
Moshe Shoham, Endocure, Israel

Ultrasound Speed-of-Sound Shift Imaging for Spatiotemporal Monitoring of Clot Formation and Lysis
Shir Gershon, Tel Aviv University, Israel

Electromagnetic Sensors for Anatomical Navigation
Amir Weizman, Quasar, Israel

10:15-10:45	*Coffee Break*	*Foyer*

10:45-12:00	Plenary 1 **Chairperson**: Raphael Beyar	Oren Hall

Opening Remarks
Raphael Beyar, Rambam Friends Organization

Amir Landesberg, ISBME President
Moshe Brand, ISBME Vice President
Moti Meir, ISBME CEO
Meital Zilberman Head of Scientific Committee

Yona Yahav, Mayor of Haifa

Honorary Members Award
Presented to **Zohar Gendler**
For his exceptional and long-standing contribution to the ISBME Society and its activities

Keynote Lecture
Presented in honour of the late Prof. Yoram Palti, founder of Novocure
Novocure: From a Revolutionary Technology to Clinical Applications
Moshe Giladi, Novocure, Israel

12:00-13:15 Parallel 5: Optical Technologies & Therapeutic Ultrasound — Hadas Hall
Chairpersons: Yoav Shectman & Avinoam Bar-Zion

Non-Invasive Blood Analysis: From Lab to Practice
Or Peleg, Litebc, Israel

Symmetric Cancer Spheroid-Fibroblast 3D Organization Revealed and Characterized by
Noam Zoref, Technion Israel Institute of Technology, Israel

Separation and Identification of Age-Related Macular Degeneration Protein Biomarkers in Nanochannels
Marzia Iarossi, Technion Israel Institute of Technology, Israel

Conformal Piezo-Phototronic Optoelectronic Device for Low-Power Wireless Biological Stimulation
Shirley Yitzhak-David, Technion Israel Institute of Technology, Israel

Real-Time Localization and Control of Anti-Vascular Ultrasound in the Brain
Sharon Katz, Technion Israel Institute of Technology, Israel

Leveraging Nanobubble-Mediated Ultrasound to Improve CAR-T Efficacy in Solid Tumour Treatment
Ariel Werblowsky, Tel Aviv University, Israel

An Advanced Platform for Monitoring Thrombolysis in Small Vessels using Comparative Ultrasound Localization Microscopy
Yarin Gershman, Tel Aviv University, Israel

12:00-13:15 Parallel 6: Go to Market: Lessons from CEO's Experiences — Oren Hall
Chairperson: Amir Ronen

Amir Ronen, CEO, Levron Medical
Andrei Yosef, President & General Manager, LTS Device Technologies
Imad Younis, President, Alfa-Omega
Assaf Klein, CEO, Limaca Medical
Nora Nseir, CEO, Narumi
Ariel Rabin, CEO, MCI – MedTech

12:00-13:15 Parallel 7: Novel Cardiovascular Technologies (1) — Tamar Hall
Chairpersons: Raphael Beyar and Idit Avrahami

Novel Cardio-Respiratory Physiological Assist Technology for Alleviating Pulmonary Congestion in Patients with Chronic Heart Failure: First-in-Human Study
Amir Landesberg, Technion Israel Institute of Technology, Israel

Hemodynamic Effects of Aortic Stenosis on Coronary Flow Dynamics
Idit Avrahami, Ariel University, Israel

Nuclear Strain and Fragility in Beating Cardiomyocytes: Implications for Laminopathies
Daria Pavlov Amiad, Technion Israel Institute of Technology, Israel

Cardiovascular Bio Convergence: First-in-Class Light-Induced Cardioversion Platform Integrating Gene Therapy and Flexible Micro-LED Bioelectronics for Atrial Fibrillation
Yaki Eidelstein, Optorhythm, Israel

Sex-Specific Differences in Sinoatrial Node Function Are Driven by Mitochondrial Ca^{2+} Influx
Rami Eid, Technion Israel Institute of Technology, Israel

Impedance Pumping in Rectangular Microchannels: A Fluid-Structure Interaction Study for Biochip Design
Dikla Kesner, Afeka Academic College of Engineering in Tel Aviv

12:00-13:15	Parallel 8: Tissue Engineering & Regenerative Medicine **Chairperson**: Meital Zilberman	Rimon Hall

Use of Electrospinning and Different Materials with CEA for Building Skin
Josef Haik, Sheba Tel Hashomer Medical Center, Israel

Advanced Tools to Study Human Physiology
Ben Maoz, Tel Aviv University, Israel

Enhancing Structural and Vascular Stability in Engineered Cardiac Tissues through Material and Cellular Strategies
Shira Landau-Levi, Technion Israel Institute of Technology, Israel

Micro and Nano- Structuring of Hydroxyapatite-MMT Loaded Hydrogels for Bone Regeneration Applications
Tom Hanoon Kogan, Tel Aviv University, Israel

Regenerative Potential of Mesenchymal Stem Cell-Derived Extracellular Vesicles Loaded with PTEN siRNA for Facial Nerve Injury
Ayelet Lotan, Technion Israel Institute of Technology, Israel

Hybrid Bioprinting of Vascularized Bone Tissue Using a Thermosensitive, Mechanically Robust Bioink
Majd Machour, Technion Israel Institute of Technology, Israel

13:15-14:30	*Lunch Break, Networking & Poster Session*	*Foyer*

14:30-15:45	Plenary 2: The Leading Future Technologies (Investors/Researchers/Physicians/Hospitals **Chairpersons**: Amir Landesberg & Meital Zilberman	Oren Hall

Uzi Levy, CEO, MIVNE Real Estate
Yuval Garini, Executive VP, Innovation & Industrial Relations, Technion
Shimon Eckhouse, Founder and Chairman, Alon-Medtech
Erez Levy, Executive Director, GE HealthCare
Nissim Darvish, Healthcare Innovation Strategist, Venture Capital Leader
Shai Policker, Managing Partner, Edge Medical Ventures
Zohar Gendler, CEO, NGT
Tamar Ben-Zvi, VP Business Development, Incentive Incubator
Amir Lichter, Head of Innovation Centre, ARC-CardioVascular

15:45-17:00	Parallel 9: Nanotechnology & Microfluidic **Chairperson**: Amit Meller	Hadas Hall

Magnetic Nanocomposites for Controlling Cell Signalling
Dekel Rosenfeld, Tel Aviv University, Israel

AI in Cancer Nanomedicine: From Text Mining to Meta-Synergy and Automated Discovery
Yosi Shamay, Technion Israel Institute of Technology, Israel

Coupling Electrokinetic Bioparticle Focusing on Continuous Microfluidics with Electrowetting-on Dielectric Droplet-Based Extraction
Amir Hillman, Tel Aviv University, Israel

Engineering a Mechanoresponsive DNA Origami Capsule for Drug Delivery to Narrowed Arteries
Hadas Omer, Technion Israel Institute of Technology, Israel

Ultrasound Mediated Polymerization for Cell Delivery, Drug Delivery, and 3D Printing
Lior Debbi, Technion Israel Institute of Technology, Israel

Low-Frequency Ultrasound-Enhanced Microdroplet Cavitation for Active Scaffold Modulation in Tissue Engineering
Hen Shenhav, Tel Aviv University, Israel

15:45-17:00	Parallel 10: Investor Arena I **Chairperson**: Ariel Sverdlik	Oren Hall

3 Finalists will Present

15:45-17:00	Parallel 11: Novel Cardiovascular Technologies (II) **Chairperson**: Moshe Brand	Tamar Hall

Biomechanical Characterization of Arteries Using a Novel Pressure–Pressure Loop Approach
Zehava Blechman, Afeka Academic College of Engineering, Israel

CereNex Medical: A Versatile Intrasaccular System for Enhanced Cerebral Aneurysm Treatment
Reuven Filman, CereNex Medical, Israel

Acunex Vascular Systems: A Catheter-Delivered Continuous Suturing System
Yathreb Asaad-Helou, Acunex Vascular Systems, Israel

ViaOne - Safe Access to the Pericardial Space Utilizing a Blunt Tip Concealed Needle Mechanizm
Ziv Menshes, CardioVia, Israel

Toward Physiological Performance: Reinforced Polymeric Valves with Embedded Fiber Architecture
Omer Tal, Technion Israel Institute of Technology, Israel

Interfacial Fluid Confinement-Based Intravascular Device for Targeted Brain Aneurysm Therapy
Tirosh Mekler, Technion Israel Institute of Technology, Israel

15:45-17:00	Parallel 12: Artificial Intelligence & Deep Learning Applications **Chairperson**: Yael Yaniv	Rimon Hall

The Deep Learning Revolution in Single-Molecule Localization Microscopy
Yoav Shechtman, Technion Israel Institute of Technology, Israel

Molecular MRI Meets Physics-Guided Deep Learning: From Neurodegeneration Biomarkers to Cancer Treatment Response
Or Perlman, Tel Aviv University, Israel

Label-Free AI-Aided Imaging Flow Cytometry of Cancer Cells
Natan T. Shaked, Tel Aviv University, Israel

Artificial Intelligence as an Infrastructure Component of Modern Cardiology: An Overview of Promising Solutions and Clinical Effectiveness
Igor Grinshteyn, Cardio and Cardiovascular Technologies, Israel

Physics-Informed Self-Supervised Generative Model for 3D Localization Microscopy
Ofri Goldenberg, Technion Israel Institute of Technology, Israel

X-Ray2CTPA: Leveraging Diffusion Models to Enhance Pulmonary Embolism Classification
Noa Cahan, Tel Aviv University, Israel

17:00-17:15	*Short Break*	*Foyer*

17:15-18:30	Parallel 13: Home Care, Telemedicine & Wearable Technologies **Chairperson**: Zehava Blechman	Hadas Hall

Lessons Learned: Telemedicine & Remote Care Technologies
Rachel Sarafraz, Sheba Tel Hashomer Medical Center, Israel

Old Medicine, High-Tech Medicine, The Right Way to Practice Medicine f
Amir Shahar, Tromiyum Tele-Medical Services, Israel

Casualty Command and Control System - Information Continuity Along the Evacuation and Treatment Chain as a Basis for Life-Saving Decision-Making
LTC I., Medical Corps, Israel Defence Forces, Israel

Speculate Gynaecology
Or Weis Ginsburg, Technion Israel Institute of Technology, Israel

GerdCare Medical: Israel-Based Digital Therapeutics Innovator Delivering eGERD, a First-in-Class Wearable, Drug-Free GERD Therapy Restoring EGJ Barrier Function and Tackling the Disease at Its Root
David Hanuka, Gerdcare Medical, Israel

An Augmented Reality Tool for Obstacle Avoidance Rehabilitation Paradigms
Shachar Maidenbaum, Ben Gurion University of the Negev, Israel

17:15-18:30	Parallel 14: Investor Arena II **Chairperson**: Ariel Sverdlik	Oren Hall

3 Finalists will Present

17:15-18:30	Parallel 15: Biomedical Robotics Surgical Procedure **Chairperson**: Ilana Nisky	Tamar Hall

Embedding Human-like Coordination in the Design and Control of Bionic Limbs
Nili Krausz, Technion Israel Institute of Technology, Israel

Bowel Incision Closure with a Semi-Automated Robot-Assisted Laser Tissue Soldering System
Uri Netz, Ben-Gurion University and Soroka Medical Center, Israel

Crossevia Medical is Revolutionizing Cath Lab Interventions with Advanced Access Devices and Enabling Endovascular AI Robotic Navigation
Tamir Nahmias, Crossevia Medical, Israel

LapBox: Setting a New Safety Standard in Minimally Invasive and Robotic Surgery
Stav Tori, Ark Surgical, Israel

Preclinical Evaluation of the MicroSteer FALCON System for Device-Assisted Endoscopic Submucosal Discretion in a Porcine Gastrointestinal Model
Eyal Ben-Esti, MicroSteer, Israel

17:15-18:30	Parallel 16: Biomaterials, Drug Delivery & Immunotherapy **Chairperson**: Moran Yadid	Rimon Hall

Tailoring the Structure and Antibacterial Properties of Self-Assembled Fmoc-Phenylalanine Nanostructures through Positional Fluorination
Moran Aviv, Afeka Academic College of Engineering, Israel

Dissolving Microneedles for Systemic and Brain Delivery of Melatonin
Aiman Abu-Amar, Azrieli, Israel

Transmuting Long-Acting Injectables Platforms
Peter Siman, Intragel, Israel

Engineering Nanoscale Hierarchy for Tailored Biomaterial Design
Zohar Arnon, Ben Gurion University, Israel

Novel Antibiotic-Eluting Gelatin-Alginate Soft Tissue Adhesives for Various Wound Closing Applications
Adaya Shefy Peleg, Tel Aviv University, Israel

A Novel Device to Enhance the Hemostatic Efficacy of Plasma in Hemorrhagic Events
Ze'ev Dvashi, Plas-Free, Israel

Poster Presentations

Foyer

1. Analysis of High-Resolution X-Ray Images for Hgb (Hemoglobin) Level Detection
Omri Adler, Rambam Health Care Campus, Israel

2. Light- and Ultrasound-Induced Antibacterial Properties of Pistacia lentiscus and Laurus Nobilis Leaf Extracts
Tigabu Haddis Ale, Ariel University, Israel

3. An Implantable Nitinol-Based Micro-Actuated Drug Delivery Device
Israel Alexandron, Ben Gurion University of the Negev, Israel

4. An Active Nitinol-Based Orthosis to Facilitate Mobility in Patients with Drop Foot
Israel Alexandron, Ben Gurion University of the Negev, Israel

5. Long-Term Learning Analysis Via Image Processing and Kinematic Analysis in Knot-Tying Task
Raz Am Shalem, Ben Gurion University of the Negev, Israel

6. Engineering a 3D-Bioprinted Model for In Vitro Cancer Research
Adi Amrusi, Technion Israel Institute of Technology, Israel

7. Expanding VR Exposure Therapy for PTSD to Civilian Scenarios
Bsant Anabosy, Ben Gurion University of the Negev, Israel

8. Mechanical Ventilation Induced Increase in Intrapulmonary Postcapillary Resistance Play Key Role in Diminishing Left Ventricle Filling and Cardiac Output
Ofri Andriesse, Technion Israel Institute of Technology, Israel

9. From High Flow to Healthy Perfusion: A Turbulent Flow Simulation of Arteriovenous Fistula Steal Syndrome Treatments
Galina Antonov, Ariel University, Israel

10. Tasks Design and Evaluation of Bimanual Interaction with Real-World Soft Elastic Objects in Robot-Assisted Minimally Invasive Surgery
Shani Arusi, Ben Gurion University of the Negev, Israel

11. Multimodal Haptic Interfaces for Upper-Limb Prosthetics: Integrating Force and Thermal Feedback
Barak Arvili, Ariel University, Israel

12. Illuminating the Underlying Mechanism of Intracellular Optoelectronic Modulation Using Silicon Nanowires
Tania Assaf, Technion Israel Institute of Technology, Israel

13. Mechanical Properties and Stress Shielding Analysis of Ti-6Al-4V TPMS lattice made via SLM for hip implant Application
Chen Atias, Ariel University, Israel

14. Anatomical Token Uncertainty for Transformer-Guided Active MRI Acquisition
Lev Ayzenberg, Tel Aviv University, Israel

15. Development of Sports Protectors Based on 3D-Printed Anisotropic Lattices
Claude Azaria, Ariel University, Israel

16. Similarly Fluent? Similarity Analysis in Children with Epilepsy and Children with Dyslexia in Relation to Reading Fluency: An fMRI Study
Marwan Bebar, Technion Israel Institute of Technology, Israel

17. Quantitative AI-Boosted Molecular Magnetic Resonance Fingerprinting of Lipids and Macromolecules in Multiple Sclerosis In Vivo
Ruth Ben Chaim, Tel Aviv University, Israel

18. Predictive Sensor Fusion Architecture for CPG-Driven Lower-Limb Exoskeleton Gait Control
Tal Ben Eli, Ariel University, Israel

19. Digital Implementation of a Scalable Virtual-Cell Framework
Yael Ben Nahum, Technion Israel Institute of Technology, Israel

20. Targeted Therapeutic Release via Ultrasound Nanodroplets for Tumour Therapy
Tiran Bercovici, Tel Aviv University, Israel

21. 3D Bioprinting of Elastic Macro-Vessel Networks within Multi-Layered Tissue Flaps
Tom Blechman, Technion Israel Institute of Technology, Israel

22. Leadless Optoelectronic Artificial Axons for Studying Activity-Dependent Myelination
Alexander Borodetsky, Technion Israel Institute of Technology, Israel

23. A Novel Silicon-Based Device for Enhancing Axonal Regeneration using Local Electric Stimulation in 3D Scaffolds Models
Ayub Boulos, Technion Israel Institute of Technology, Israel

24. A Data-Driven Approach for SFA Restenosis Prediction: Integrating Patient-Specific CFD and Machine Learning
Moshe Brand, Ariel University, Israel

25. Daily Living Gait Measures Derive from Wrist Accelerometers and a Deep Learning Pipeline are Associated with Postmortem Brain Pathologies
Yonatan Brand, Tel Aviv University, Israel

26. AI-Driven Patient Phenotyping for ICU Nutrition
Eden Breen, Ariel University, Israel

27. Ophthalmology foundation models for clinically significant age macular degeneration detection
Benjamin A. Cohen, Technion Israel Institute of Technology, Israel

28. Magnetothermal Neuromodulation to Control Axonal Elongation
Yuval Cohen, Tel Aviv University, Israel

29. Novel Edible Bioinks for Cultivated Meat: Evaluating Feasibility and Effects on Intestinal Epithelium
Shlomit David, Technion Israel Institute of Technology, Israel

30. Guiding Epidural Needle Insertion Training with Task-Specific Metrics and Motor Control Principles
Nitsan Davidor, Ben Gurion University of the Negev, Israel

31. Parallel and Targeted Cell Electroporation via Optoelectronic Ally Controlled Janus Micromotors
Srikanta Debata, Tel Aviv University, Israel

32. Compact 3D Imaging Flow Cytometry for Volumetric Analysis of Nanoparticle Uptake
Roni Ehrlich, Technion Israel Institute of Technology, Israel

33. Vascular Inflammatory Signalling at the Blood–Brain Barrier: A Model for Hypertensive Neurovascular Injury
Reem Fahmawi, Technion Israel Institute of Technology, Israel

34. Development of a Novel Sensor-Integrated Eight-Plate for Adolescent Limb Deformity Correction
Nirel Fedida, Ariel University, Israel

35. Multiparameter Uncertainty Mapping in Quantitative Molecular MRI by a Physics-Structured Variational Autoencoder (PS-VAE)
Alex Finkelstein, Tel Aviv University, Israel

36. 3D Printed Vascularized Tissue Flaps Enabling Direct Anastomosis for Reconstructive Clinical Applications
Eliana Fischer, Technion Israel Institute of Technology, Israel

37. Numerical analysis of the hemodynamics and performance of miniature ventricular assist devices
Yuval Gabso, Ariel University, Israel

38. Targeting Ubiquitin Signalling: A Novel Cyclic Peptide Therapy for Multiple Myeloma
Dima Ghannam Shahbari, UB Therapeutics, Israel

39. Mechano-Profiling and Modulation of Red Blood Cell-Based Shear-Responsive Carriers
Anat Glozman, Technion Israel Institute of Technology, Israel

40. A Novel Active Transparent Model for In-Vitro PIV Investigation of Left Ventricular Hemodynamics.
Itamar Goshen, Ariel University, Israel

41. Super-Resolution Intracellular Ultrasound Imaging using Blinking Nanodroplets
Saar Gotshal, Tel Aviv University, Israel

42. Leveraging Symmetrical Flow Matching for Source-Free Domain Adaptation in Medical Image Segmentation
Tal Grossman, Tel Aviv University, Israel

43. CERNAL: A Transcriptome-Driven Compiler for RNA-Based Cellular Logic Circuits
Mor Gurwicz, Tel Aviv University, Israel

44. Experimental Quantification of Three-Dimensional, Time-Resolved Fluid–Structure Interaction in a Left-Ventricular Phantom
Omer Hadar, Tel Aviv University, Israel

45. Leadless Biomechanical Innovative Technologies for Cardiac Repair
Layan Habib, Technion Israel Institute of Technology, Israel

46. Visualizing Vascular Bone Marrow Niche Alterations in Diabetes
Narmeen Haj, Technion Israel Institute of Technology, Israel

47. Advanced Signal Processing and Multi-Criteria Ranking Framework for Cuffless Systolic Blood Pressure Estimation Based on Photoplethysmography (PPG) Signal Analysis
Ami Hauptman, Afeka Academic College of Engineering in Tel Aviv, Israel

48. Multi-Contrast Generation and Quantitative MRI using a Transformer-Based Framework with RF Excitation Embeddings
Sahar Ifrah, Tel Aviv University, Israel

49. Brightfield Snapshot 3D Microscopy: Towards In-Vivo Imaging
Leen Ileimi, Technion Israel Institute of Technology, Israel

50. A 3D Bioprinted Vascularized, Perfusable Intestinal Model for Drug Evaluation and Disease Modeling
Adina Israel Fried, Technion Israel Institute of Technology, Israel

51. Exploring Genome Organization at the Nanometric Scale in the Cell Nucleus
Rand Kamal, Technion Israel Institute of Technology, Israel

52. Ultrasonic Speed-of-Sound Shift Imaging for Microbubble-Mediated Therapeutic Applications
Keren Tchelet Karlinsky, Tel Aviv University, Israel

53. Exploring the Distance-Dependent Mechanical Communication During Sprouting Angiogenesis
Oryan Karni, Technion Israel Institute of Technology, Israel

54. Corticomotoneuronal Suppression and Facilitation Map onto Null and Potent Population Dynamics during Dexterous Movements
Daniel Katz, Technion Israel Institute of Technology, Israel

55. Toward Patient-Specific Optimization of Systemic-to-Pulmonary Shunts in Single-Ventricle Physiology
Adi Konsens, Tel Aviv University, Israel

56. Three-Dimensional Magneto Responsive Scaffolds for Remote Cellular Stimulation
Ekaterina Kuznetsova, Tel Aviv University, Israel

57. Cryoablation Temperature Monitoring with Dense Ultrasonic Slowness Shift Imaging
Gaya Lamm, Tel Aviv University, Israel

58. Regulatory Strategy as a Catalyst for Innovation: Accelerating Medical Device Market Access Through Lifecycle Integration and Building Investor Trust
Shay Leventhal Gabay, RA360 Consulting, Israel

59. Cellulose Fibres Enhance the Function of Hemostatic Composite Medical Sealants
Inbar Levi, Tel Aviv University, Israel

60. Selective Targeting of Non-Small Cell Lung Cancer in Three-Dimensional Models by Non-Thermal Millimetre-Wave Irradiation
Stella Liberman-Aronov, Ariel University, Israel

61. Biomechanics Modelling of Traumatic Spinal Cord Injury Due to Ischemia
Guy Lilling, Tel Aviv University, Israel

62. Virtual Reality Systems for Treating PTSD: Israeli-Tailored Prolonged Exposure and Place Attachment Therapy
Shachar Maidenbaum, Ben Gurion University, Israel

63. Effects of Arterial Wall Roughness and Mechanical Stiffness on Hemodynamics in 3D-Printed Vessel Models
Shai Maman, Afeka Academic College of Engineering in Tel Aviv, Israel

64. Biomimetic Silk-Reinforced IPN Hydrogel Composite Tubular Constructs for Coronary Artery Replacement: Mechanical Performance
Dekel Maroz, Ariel University, Israel

65. Soft Tissue Hybrid Bioprinting for Tissue Engineering Using a PLGA-Particle Reinforcement Bioink
Roy Meretzki, Technion Israel Institute of Technology, Israel

66. Quantitative Monitoring of Immunotherapy Treatment Response in Paediatric Tumours Using Molecular CEST MRI
Ron Moneta, Tel Aviv University, Israel

67. Fiber-Reinforced Interfaces Enhance Mechanical Integrity in Biomimetic Intervertebral Discs
Haim Salim Mordechai, Ariel University, Israel

68. Biomechanics Modelling of Traumatic Spinal Cord Injury Due to Haemorrhage
Ilana Nachshon, Tel Aviv University, Israel

69. Synthetic Mammalian RNA-Based Auxiliary Module for High Gene Expression
Doaa Naffaa, Technion Israel Institute of Technology, Israel

70. Benchmarking AI Against Expert Ophthalmologists for Clinical Detection of Referable Eye Diseases
Renee Najman, Technion Israel Institute of Technology, Israel

71. A Microfluidic Nanoliter-Well Platform for Direct-from-Sample Rapid Phenotypic Antimicrobial Susceptibility Testing
Michal Nehrer, Technion Israel Institute of Technology, Israel

72. Enhancing Drug Permeability into Solid Tumours Via Opto-Electronic Silicon Nanowires Mediated Electroporation
Dana Nir, Technion Israel Institute of Technology, Israel

73. Combining Supramolecular and Covalent Chemistry to form versatile Reinforced Fibrillar Network Hydrogels from Fibrin and Methacrylated Fibrinogen
Noa Notea-Debutton, Technion Israel Institute of Technology, Israel

74. Programmable Hybrid Systems for Targeted Cancer Therapy: Integrating Engineered Bacteria and Mammalian Cells
Siraj Nsraldeen Halabi, Technion Israel Institute of Technology, Israel

75. Early Detection of CAR-T-Associated Neurotoxicity via Cytokine Monitoring in Serum
Amit Parizat, Technion Israel Institute of Technology, Israel

76. Selective Anti-Cancer Influence of Millimetre-Wave Irradiation on Solid Tumour Viability and Division
Dhavalkumar Patel, Ariel University, Israel

77. Design of Bioactive Titanium Porous Structures via Binder Jetting, Partial Sintering and Surface Modification
Vladimir Popov, Ariel University, Israel

78. Predicting Arteriovenous Fistula Failure: An Iterative CFD Framework for Intimal Hyperplasia Progression
Dmitry Reshetnikov, Tel Aviv University, Israel

79. Quantitative Assessment of Early Post-Type 2 Myocardial Infarction Remodelling
Maya Rom, Technion Israel Institute of Technology, Israel

80. Intracellular Ca^{2+} Modulates PKA Compartmentalization and Dynamics in Human iPSC-Derived Cardiomyocytes
Anat Rotschield, Technion Israel Institute of Technology, Israel

81. The Effect of Aortic Valve Stenosis on the Hemodynamic of the Coronary Arteries
Sofia Runshteyn, Ariel University, Israel

82. Beyond Glucose: Evidence that ^{18}F-FDG PET Underestimates Bone Marrow Activation in Diabetes
Dareen Saab, Technion Israel Institute of Technology, Israel

83. Wearable K Band Sensors for Healthcare, IoT, and Telemedicine Systems
Albert Sabban, Braude College of Engineering, Israel

84. Studying Fluorescent Properties of Olive Carbon Dots using Time-Resolved Fluorescence Measurements
Ulugbek Saidvaliev, Tel Aviv University, Israel

85. Vortex-Driven Perfusion: The Impact of Aortic Root Hemodynamics on Coronary Flow in Aortic Stenosis and Valve Replacements
Oren Salimi, Ariel University, Israel

86. End-to-End Joint Optimization of Z-Encoding Phase Mask and Z-Stack Reconstruction for Single-Shot 3D Fluorescence Microscopy
Danielle Sapir, Technion Israel Institute of Technology, Israel

87. Integration of MRI and Computational Hemodynamic Modelling for the Assessment of Human Placental Vasculature and Function
Dana Schonberger, Tel Aviv University, Israel

88. Structural Motifs Promote Tear Resistance and Flaw Tolerance in Silk Fibroin–Alginate Bio Composites
Smadar Sharon, Ariel University, Israel

89. An Abdominal Aortic Aneurysm Micro-Physiological Model for the Study of Localized Therapeutics
Suzan Shehday, Technion Israel Institute of Technology, Israel

90. Automated Detection of Freezing of Gait in Complex Environments From simple 2D Video Using Spatiotemporal Graph Convolutional Networks
Arik Shkolnikov, Tel Aviv University, Israel

91. Skeletal Muscle-Derived Extracellular Vesicles and Their Impact on Glucose Regulation in Type 2 Diabetes
Hagit Shoyhet, Technion Israel Institute of Technology, Israel

92. Acunex Vascular Systems: A Catheter-Delivered Continuous Suturing System for Durable EVAR Graft Fixation
Areen Shtewe, Acunex Vascular Systems, Israel

93. Bioengineered Human Neurovascular Unit: A Perfusable In Vitro Platform
Rita Shuhmaher Bialik, Technion Israel Institute of Technology, Israel

94. Architected Hybrid Scaffolds for Patient-Specific, Mechanically Compliant Breast Tissue Engineering
Asaf Silverstein, Technion Israel Institute of Technology, Israel

95. Macroscopic Fourier-Based Spectral Imaging for Biopsy Analysis and Diagnosis
Adam Soker, Technion Israel Institute of Technology, Israel

96. Toward Distortion–Perception–Balanced MRI Reconstruction with Rectified Flow
Omer Taub, Tel Aviv University, Israel

97. Engineering a Fetal-Like Wound Microenvironment: Controlled TGF-β3 Delivery via FibMA Hydrogel Reduces Adult Skin Fibrosis
Victoria Teichman, Technion Israel Institute of Technology, Israel

98. Cell-Cell Interactions in Bio Printed Vascularized Composite Soft Tissue Flaps with an Integrated Arterial-Venous Loop
Anna Tsukerman, Technion Israel Institute of Technology, Israel

99. Improving Ligamentum Flavum Haptic Rendering in a Bimanual Epidural Needle Insertion Simulator
Mohamad Usman, Ben Gurion University of the Negev, Israel

100. Simulations and Classification of Flow Fields in Different Umbilical Cord Models
Anna Vassart, Afeka College of Engineering, Israel

101. Clinical Progression of Dystrophinopathies: Exploring the Role of Autonomic Nervous System Activity and Machine Learning Models
Bar Vinder, Ariel University, Israel

102. End-to-End Deep-Learning-Based Discovery of Quantitative Molecular MRI Acquisition Protocols
Nikita Vladimirov, Tel Aviv University, Israel

103. A Novel Approach for Electrophysiological Profiling of Cardiac Organoids Using Spatiotemporal Analysis and Beat Rate Variability
Ido Weiser-Bitoun, Rambam Health Care Campus, Israel

104. A High-Throughput Perfusable Platform for Generating Vascularized Tissues
Maya Yaakov, Technion Israel Institute of Technology, Israel

105. Predicting Subject-Specific fMRI Activation Maps from Cognitive Profiles using a Spatial Basis Decomposition
Ori Zehngut, Technion Israel Institute of Technology, Israel

106. Combined Discrete Wavelet Transform and Machine Learning from Reflectance Spectra for Screening Types of Skin Cancer in Patients
Yoav Zuntz, Ariel University, Israel