



Venue - IKI Auditorium, Room 015, Building 51, BGU

Program

Day 1 – Sunday, 7 December 2025

10:00-11:00 Registration

11:00-11:15 Opening Remarks and Greetings

Moderator – Gal Carmeli, Coordinator of FUNGA fest 2025, Department of Biotechnology Engineering, BGU

Robert S. Marks, Chair of FUNGA fest 2025, Department of Biotechnology Engineering, BGU

Hanna Rapaport, Chair, Department of Biotechnology Engineering, BGU

Segula Masaphy, Tel-Hai; MIGAL, Israel

Dalia Lewinsohn, Shamir Institute, Israel

Rachel Amir, Dean, Faculty of Sciences and Technology, Tel-Hai, Israel (Recorded)

Chair: Alona Yu. Biketova

Reminiscences Lecture:

11:15-11:35 Dalia Lewinsohn, Shamir Institute, Israel - The Pioneer Mycologist Prof. Zehara Avizohar-Hershenson

Plenary lecture:

11:35-12:00 Elinoar Shavit, NAMA, USA – On the Shoulders of Giants: The Wassons and the Genesis of Ethnomycology

12:00-12:15 Coffee Break

Session 1 – Mycotechnology & Industry

Chair: Liudmila Kalitukha

12:15-12:30 Barak Dror, Solid Fermentation Innovation, Israel – Solid-state Fermentation: An Old Solution to New Problems

12:30-12:45 Shaked Barnea, Msics Pharma Ltd., Israel – Integration of Psilocybin Mushroom Cultivation, Botanical Regulation, and Pharmaceutical Applications

12:45-13:00 Paz Shemesh, Technion, Israel – Optimizing *Pichia pastoris* as a Fermentation Platform for the Production of Alternative Proteins

13:00-14:00 Lunch Break and Poster Presentations

Posters

Eyal Kurzbaum, Shamir, Israel – Enhancing the Bioactive Components in *Psilocybe Cubensis* Mycelium: The Influence of Submerged Fermentation Conditions

César Silva, BGU, Israel – Myco Structures Formulation Process Using Liquid Mycelium Culture

Maria Iasmina MOZA, UB, Romania - Plastic Degradation by Fungi: Insights from *Aspergillus*, *Trichoderma*, and *Rhizopus*

Session 2 – Applied Mycology

Chair: Tomislav Ivankovic, Evgeni Eltzov, Eyal Kurzbaum

14:00-14:20 Tomislav Ivankovic, UNIZG, Croatia – Extending Capillary Biofilm Motility to Bacterial–Fungal Consortia

14:20-14:35 Mery Dafny Yelin, Tel-Hai; MIGAL, Israel – Inhibition of *Athelia rolfsii*-Induced Stem Rot in Tomatoes Using Secretions from the Black Soldier Fly

14:35-14:50 Samuel D. Nomo, BGU, Israel – Exploring a Green Alga Isolated from the Negev Desert for Sustainable Biological Control of Fungal Phytopathogens

14:50-15:05 Oded Yarden, HUJI, Israel - The Culturable Mycobiome of the Red Sea Coral *Stylophora pistillata*: Friends and Foes?

15:05-15:20 Coffee Break

15:20-15:30 Gal Carmeli, BGU, Israel – Phagocytic Chemiluminescent Fingerprints to Monitor and Screen Bioactive Compounds in Mushroom Extracts

15:30-15:45 Ariel Kushmaro, BGU, Israel – Whole-Cell Bioreporter-Based Assay for Detecting Fungal-Derived β -Lactamase Inhibitors

15:45-16:00 Robert S. Marks, BGU, Israel – Bioluminescent Whole-Cell Bioreporter Bacterial Panel for Screening and Discovery of Bioactive Compounds Derived from Mushrooms

16:00-16:15 Yarden Schindler Azut, TAU, Israel – Microplastic Removal and Biodegradation by Native Mediterranean Fungus *Alternaria alternata*

16:15-16:30 Coffee Break

16:30-16:45 Shany Finkelstein Shatz, HUJI; Volcani Institute, Israel – *Metarrhizium brunneum* Blastospores as a Promising Cost-Effective Biopesticide: Insights into Virulence, Tolerance, and Efficacy

16:45-17:00 Evgeni Eltzov, Volcani Institute, Israel – Early Detection of Quiescent Fungal Pathogens in Crops for Effective Disease Management

17:00-17:15 Noam Alkan, Volcani Institute, Israel – dsRNA as a Promising Eco-Friendly Treatment to Control Postharvest Diseases

17:15-17:30 Yitzhak Hadar, HUJI, Israel - *Pleurotus ostreatus*: not just an edible mushroom

Day 2 – Monday, 8 December 2025

09:00-10:00 Registration

Session 3 – Plant Pathology

Chair: Shay Covo, Maya Bar

10:00-10:15 Ofir Degani, Tel-Hai; MIGAL, Israel – Fungal Dynamics in Maize Late Wilt Disease: Intra-Species Interactions and Crosstalk with *Fusarium verticillioides*

10:15-10:30 Denberu Kebede, BGU, Israel – Exploring Premature Field Collapse During Late Growth Stage in Spring Session Potatoes in the Western Negev, Israel

10:30-10:40 Legese Hagos, Ethiopian Institute of Agricultural Research, Ethiopia – Prevalence of Mycotoxicogenic Fungi and Ochratoxin A in Green Coffee Beans (*Coffea arabica* L.)

10:40-10:55 Nadav Nitzan, Valley of Springs, Israel – Fungicide Resistance in *Stemphylium vesicarium*, Cause of Stemphylium Leaf Blight of Garlic and Onion in Israel

10:55-11:15 Coffee Break

11:15-11:30 Nadav Smila, Volcani; HUJI, Israel – Characterization of Fungal Pathogens Causing Decay in Cold-Stored Carrots and Development of Sustainable Control Strategies

11:30-11:45 Shay Covo, HUJI, Israel – DNA Repair and Mutagenesis in *Fusarium* sp.

11:45-12:00 Maya Bar, BGU, Israel – Uncovering Factors Influencing Host Specificity and Mutualistic Beneficial Plant Interactions of the Phytopathogen *Botrytis cinerea*

12:00-12:15 Benjamin Horwitz, Technion, Israel - Host Suppression of Stress Signaling in the Maize Pathogen *Cochliobolus heterostrophus*

12:15-12:30 Diana Poliak, ADAMA, Israel - Formulation Forward: ADAMA's Innovation Journey

12:30-13:30 Lunch Break and Poster Presentations

Posters

Ory Perelsman, UOH, Israel – Lion's Mane Extracts Recover Electrophysiological Deficits in Neurons

Yahav Cohen, BGU, Israel – MP65/ENO1 ratio as an indicator of pathogenicity in *Candida albicans* infection

Meirav Leibman-Markus, Volcani Institute, Israel – Plant Structure and CK Balance Modulate Host-Specificity and Pathogenicity of *Botrytis cinerea*

Yonat Tzur, Tel-Hai; MIGAL, Israel – AI-Driven Screening of Natural Compound Combinations Against Citrus Fruit *Penicillium* Pathogens

Venue - **IKI Auditorium**, Room 015, Building 51, BGU

Loida L. Tejada, Volcani Institute; BGU, Israel - Deciphering the Role of Pairwise Communication in Disease Resistance, Immunity, and Growth of Solanaceous Crops

Hazem Khamaisi, Tel-Hai; MIGAL; Technion, Israel – Functional Role of *Cochliobolus heterostrophus* Epoxide Hydrolase AB1 in Fungal Pathogenicity

Iftah Marash, TAU; Volcani Institute, Israel – The Role of the Target of Rapamycin (TOR) Kinase in Tomato Plant Immunity Against the Pathogen *Botrytis cinerea*

Ivan V. Zmitrovich, Komarov Botanical Institute, Russia – Medicinal Macrofungi on Calliprime Oak

Session 4 – Medical Mycology

Chair: Daniel Elad, Nir Osherov

13:30-13:45 Daniel Elad, HUJI, Israel – Human Activities (Suspected) to Cause Changes in the Epidemiology of Fungal Diseases in Man and Animals

13:45-14:00 Esther Segal, TAU, Israel – What Is Hiding in Sand and Seawater in Beaches: Impact on Human Morbidity

14:00-14:15 Dalia Lewinsohn, Shamir Institute, Israel – The Epidemiology of Wild Mushroom Poisoning in Israel

14:15-14:30 Nir Osherov, TAU, Israel – Development of Azole Resistance in the pathogenic mold *Aspergillus fumigatus*: New Insights

14:30-14:45 Ofri Levi, Tel-Hai; MIGAL, Israel – Genome-wide CRISPRi Exploration of Plant-derived Compounds for Antifungal Potential

14:45-15:00 Coffee Break

15:00-15:15 Edward Sionov, Volcani Institute, Israel – Molecular Mechanisms Governing Aneuploidy-Mediated Azole Resistance in *Aspergillus flavus*

15:15-15:25 Yahav Cohen, BGU, Israel - MP65/ENO1 ratio as an indicator of pathogenicity in *Candida albicans* infection

15:25-15:35 Fredric Narciss, BGU, Israel - Comparison of Large Language Models to Identify Biomarkers for the Pathogenic Phase of *Candida albicans*

15:35-15:50 Goldie Wolfson, HUJI, Israel - Study the Antifungal Activity of Anandamide Against *Candida* Species

15:50-16:10 Coffee Break



Session 5 – Medicinal Macrofungi

Chair: Liudmila Kalitukha, Haim Leibovitzh

16:10-16:25 Eshed Haklai, Israel – Mushrooms' Effects on Cancer Hallmarks

16:25-16:45 Liudmila Kalitukha, Good Feeling Products GmbH, Germany – *Fomes fomentarius*: from Tindermaker to Medicinal Mushroom

16:45-17:00 Mark Nijtten, A2M, The Netherlands; BGU, Israel – Cost-Effectiveness of Mushrooms in Depression

17:00-17:15 Alona Yu. Biketova, Myco Expert; Royal Botanic Gardens, Kew, UK; Association of Wild Fungi, Israel – Fungal Names Matter: The Critical Role of Nomenclature in Medicinal Macrofungi Research and Applications

17:15-17:30 Haim Leibovitzh, TAU; Ichilov, Israel – A Mushroom-Based Prebiotic Supplement Pilot Study among Patients with Crohn's Disease

17:30-17:45 Mark Nijtten, A2M, The Netherlands; BGU, Israel – Clinical and Economic Valuation of Medical Innovation: Application to Mushrooms in Stroke

Day 3 – Tuesday, 9 December 2025

Mushroom Foray & Mushroom Farms Tour

Forage Leaders - Alona Yu. Biketova, Dalia Lewinsohn

*This is a tentative timeline; foray depends on sedimentation, weather, and whether there will be mushrooms at that time.

8:45 Gathering at Be'er Sheva North/University train station

9:00 Bus leaves from Be'er Sheva North/University train station

10:00 Mushroom farm tour at Arad

12:00 Mushroom farm tour at Kiryat Gat

13:00 Lunch break

12:30 Foray at Ha-Mal'akhim-Shkharya Forest

16:00 Foray at Shemurat Kurkar Gevar'am/ Erez forest/ Yad Mordehai Forest

17:00 Fresh mushroom shop at Kibutz Sa'ad

18:00 Drop-off at BGU

Day 4 – Wednesday, 10 December 2025

09:00-10:00 Registration

Wild Foraged Mushrooms Exhibition

Identification and set up – Dr. Alona Yu. Biketova, Dr. Dalia Lewinsohn

Session 6 – Fungal Taxonomy & Diversity

Chair: Alona Yu. Biketova, Segula Masaphy

10:00-10:15 Segula Masaphy, Tel-Hai; MIGAL, Israel – The Plasticity Within the *Morchella* Genus: Species Identification, Habitats, and Trophic Mode

10:15-10:30 Alona Yu. Biketova, Myco Expert; Royal Botanic Gardens, Kew, UK; Association of Wild Fungi, Israel – How to Describe a New Species of Fungi in 2025

10:30-10:45 Idan Pereman, Tel-Hai; MIGAL, Israel – Diversity and Agricultural Potential of Truffles (Tuberaceae, Pezizales) in Israel

10:45-11:00 Nitsan Bar-Shmuel, Shamir; UOH, Israel – Evaluating Expert and Community Survey Methodologies for Macrofungal Monitoring in Israel

11:10-11:15 Ezra Orlofsky, Tel-Hai, Israel – The Effect of Forest Thinning Regimes on Underground Fungal Taxonomic and Functional Diversity

11:15-11:30 Coffee Break



Session 7 – Ecology of Fungi

Chair: Idan Pereman

11:30-11:45 Itai Opatovsky, Tel-Hai; MIGAL, Israel – The Metabolic Interactions Between the Black Soldier Fly and Fungi from Its Gut and Environment

11:45-12:00 Stav Livne-Luzon, Weizmann Institute, Israel – Context Dependency in Diverse Effects of Common Mycorrhizal Networks

12:00-12:15 Hagai Shemesh, Tel-Hai, Israel – Richness, Community Structure, and Spatial Autocorrelation of Soil Fungi Along a Sharp Aridity Gradient in Monodominant Pine Forests

12:15-12:30 Irit Nir, BGU, Israel - Hidden Fungal Communities in Desert Rocks and Their Role in Bioweathering

12:30-12:40 Angelika Shapiro, Bar-Ilan; Volcani Institute, Israel - iNaturalist Platform for Fungal Phenology: Opportunities and Biases

12:40-12:55 Maria Iasmina MOZA, UB, Romania - Invisible Decay: Biodeterioration Processes and Alternative Mitigation Strategies in Romanian Cultural Heritage

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12:55-13:55 Lunch Break and Poster Presentations

Posters

Bruria Gal, TAU, Israel – The Fungi Collection

Oded Naftali, Nigun Hayaar, Israel – Similar Yet Different: Visual Comparison of Edible and Toxic Look-Alikes in Mediterranean Forests of Israel

Oded Naftali, Nigun Hayaar, Israel – Fungi of the Forest: Visual Classification of Suillaceae and Boletaceae in Israel

Oded Naftali, Nigun Hayaar, Israel – Similar Yet Different: Visual Comparison of *Lactarius deliciosus* and *Lactarius zonarius* in Israel

Oded Naftali, Nigun Hayaar, Israel – Similar Yet Different: Visual Comparison of *Amanita echinocephala* and *Amanita vittadinii*

Oded Naftali, Nigun Hayaar, Israel – Similar Yet Different: Visual Differentiation Between *Amanita ovoidea* and *Amanita proxima*

Oded Naftali, Nigun Hayaar, Israel – Fungi of the Wood: Visual Overview of Common Tree-Dwelling Species in Israel

Oded Naftali, Nigun Hayaar, Israel – Milk of the Forest: Visual Representation of *Lactarius* Species and Their Habitats in Israel

Oded Naftali, Nigun Hayaar, Israel – Amanitas of Israel: A Visual Celebration of Form and Diversity

Session 8 – Wild Macrofungi in Israel (in Hebrew)

Chair: Yula Vilozeni, Dalia Lewinsohn

13:55-14:10 Elad Gillon, HUJI, Israel – New Fungi Species in Israel

14:10-14:25 Maya Ginsburg, LOVINMUSHROOMS, Israel - Trips for Mushroom Foraging Around the World - Learning Mycology in Motion

14:25-14:40 Sasson Zaarur, Israel - Following the Mushrooms in Thailand

14:40-14:55 Olga Skoulsky, Israel Mushroom Society, Israel - Citizen Mycology in Israel: Retraining Fungal Priors Through a Distributed Epistemic Network

14:55-15:10 Coffee Break



Session 9 – Ethno-Mycology

Chair: Sandra Valabregue, Ayelet Lerer Shaki

15:10-15:20 Robert S. Marks, BGU, Israel – Dermatophytosis in Fine Art: An Update

15:20-15:35 Sandra Valabregue, HUJI, Israel – Spiritual Practices: A Dialogue Between Jewish and Shamanic Traditions

15:35-15:50 Ayelet Lerer Shaki, Shaman Medical Mycellium Biotechnology, Israel - Mycelium-Based Technologies: A Dialogue Between Jewish and Shamanic Traditions

15:50-16:05 Eden Rosenberg, HUJI, Israel – Yeast Microbiome as a Biological Indicator for Identifying the Original Contents of Ancient Clay Vessels

16:05-16:15 Fredric Narcross, BGU, Israel – “Dermatophytosis in Art” Revisited – Have LLMs Improved Research?

Session 10 – Closing Remarks and Awards

16:15-16:35 Dan Levanon, Tel-Hai; MIGAL, Israel - Edible Mushroom Industry in the Galilee - The Vision and Implementation

16:35-16:40



FERMENTATION INNOVATION sponsors the Best Poster Award (1,000NIS)

Segula Masaphy and Dalia Lewinsohn - Announcing the winners in the Art and Photo Competition

16:40-16:45 Robert S. Marks, BGU, Israel – Closing Remarks

End of Conference

16:45-17:30 Closed-door FUNGA committee

Meeting Agenda:

- An Israeli Mycological Society?
- FUNGA fest assessment
- FUNGA fest 2026?
- Internationalisation of FUNGA fest
- Synergy among groups
- FUNGA and denizens

19:30 Mycophagy Potluck & Cookery (**By Invitation**)