



Programme

7th National Conference of Young Biotechnologists

February 5-6, 2026.

Szeged

MTA MAGYAR
TUDOMÁNYOS
AKADEMIA



MTA200



Thursday (5 February)

9:30	Registration
10:45 – 11:00	Opening
11:00 – 12:00	Medical and pharmacological biotechnology
12:00 – 12:10	Hungarian Biotechnology Students Association
12:10 – 13:30	Lunch (own expense)
13:30 – 14:30	Animal biotechnology
14:30 – 15:00	Coffee break
15:00 – 16:00	Plant- and food biotechnology I.
16:00 – 16:30	Transition
16:30 – 17:30	Poster presentations
17:30 – 19:00	Poster section (wine & cheese)
19:00 – 21:00	Dinner (Art Hotel)

Friday (6 February)

9:45 – 12:00	Plant- and food biotechnology II.
12:00 – 13:30	Lunch (own expense)
13:30 – 15:00	Bioinformatics and Microbial biotechnology I.
15:00 – 15:30	Coffee break
15:30 – 17:00	Microbial biotechnology II.
17:00	Closing

Programme
outline

Thursday (5 February)

9:30 Registration

10:45 – 11:00 Opening

Prof. Dr. István KRIZBAI (HUN-REN Biological Research Centre)

Prof. Dr. Csaba LANTOS (Cereal Research Non-Profit Ltd.)

Dr. Gábor FEIGL (University of Szeged)

11:00 – 12:00 Medical and pharmacological biotechnology

Chairperson: Prof. Dr. Mária DELI (HUN-REN Biological Research Centre)

11:00 – 11:30 Invited speaker: Prof. Dr. László NAGY (Johns Hopkins University)

HARNESSING THE HEALING POWER OF MACROPHAGES

11:30 – 11:45 Máté Gergő HONVÁRI (Budapest University of Technology and Economics)

BIOCATALYSIS FOR SYNTHESIS OF ENANTIOPURE SATURATED HETEROCYCLES AS POTENTIAL DRUG SCAFFOLDS

11:45 – 12:00 Máté LAURINYECZ (Budapest University of Technology and Economics)

NON-COVALENT ENZYME IMMOBILIZATION: DEVELOPMENT AND APPLICATION

12:00 – 12:10 Áron NAGY

INTRODUCTION OF THE HUNGARIAN BIOTECHNOLOGY STUDENTS ASSOCIATION

12:10 – 13:30 Lunch (own expense)

13:30 – 14:30 Animal biotechnology

Chairperson: Prof. Dr. Elen GÓCZA (Hungarian University of Agriculture and Life Sciences)

13:30 – 14:00 Invited speaker: Dr. Bence SOMOSKÓI (University of Veterinary Medicine)

IN VITRO CULTURE AND CRYOPRESERVATION OF PREANTRAL FOLLICLES IN VARIOUS SPECIES

14:00 – 14:15 **Dániel PÉTER** (Hungarian University of Agriculture and Life Sciences)

AFRICAN CATFISH SELECTION FOR BETTER HEAD AND FILLET SIZE

14:15 – 14:30 **Arnold TÓTH** (Hungarian University of Agriculture and Life Sciences)

HEAT TREATMENT EXPERIMENTS ON CHICKEN PRIMORDIA GERM CELLS:
INVESTIGATING CHANGES IN THE CELL CYCLE AND FREEZING CAPABILITIES

14:30 – 15:00 Coffee break

15:00 – 16:00 Plant- and food biotechnology I.

Chairperson: **Prof. Dr. Éva VÁRALLYAY** (Hungarian University of Agriculture and Life Sciences)

15:00 – 15:30 Invited Speaker: **Prof. Dr. Miklós FÁRI** (University of Debrecen)

THE CHALLENGES OF GROWING PLANTS IN SPACE AND THE RESULTS OF THE HUNOR-VITAPRIC PROJECT

15:30 – 15:45 **Orsolya KEDVES** (University of Szeged)

DEVELOPMENT OF MULTIFUNCTIONAL SOIL MICROBIAL CONSORCIA TO ENHANCE CROP PERFORMANCE UNDER CLIMATIC STRESS

15:45 – 16:00 **Esther Ijeoma IDOGWU** (Hungarian University of Agriculture and Life Sciences)

EXPLORING THE GENETIC BACKGROUND AND POTENTIAL USEFULNESS OF A POTATO CHIMERA

16:30 – 17:30 Short poster presentations

Chairpersons: **Prof. Dr. Elen GÓCZA** and **Dr. Ágnes GALLÉ** (University of Szeged)

16:30 – 16:33 **Tamás BODOR** (University of Szeged)

SEED AND SEEDLING-STAGE RESPONSES TO NOVEL FORMULATIONS OF (NANO)ZINC-ENRICHED PLASMA-ACTIVATED WATER UNDER OSMOTIC STRESS IN ARABIDOPSIS (PF#PE1)

16:33 – 16:36 **Gábor FEJES** (University of Szeged)

PLASMA-ACTIVATED LIQUIDS IMPROVE OSMOTIC STRESS TOLERANCE OF PEA PLANTS (PF#PE2)

16:36 – 16:39 **Neda HESARI** (Hungarian University of Agriculture and Life Sciences)

MOLECULAR INSIGHTS INTO HYPOXIA TOLERANCE IN WATERLOGGED CUCUMBER
(PF#PE3)

16:39 – 16:42 **Khan IMRAN** (HUN-REN Centre for Agricultural Research)

SMXL3 ACTIVITY IS EAR-MOTIF DEPENDENT FOR ESTABLISHING ROOT SYSTEM
ARCHITECTURE IN ARABIDOPSIS (PF#PE4)

16:42 – 16:45 **Diellza Dresha KASTRATI** (Hungarian University of Agriculture and Life
Sciences)

RESISTANCE AGAINST TOMATO BROWN RUGOSE FRUIT VIRUS IN WILD SOLANUM
SPECIES (PF#PE5)

16:45 – 16:48 **Dóra KONDAK** (University of Szeged)

NITRIC OXIDE -RELEASING NANOPARTICLES ENHANCE TOMATO FRUIT DEFENSE
AGAINST BOTRYTIS CINEREA (PF#PE6)

16:48 – 16:51 **Kamilla KOVÁCS** (University of Szeged)

UNDER DOUBLE STRESS: INTERACTIONS BETWEEN THE EFFECTS OF HEAVY METALS
AND PLASTICS ON PLANTS (PF#PE7)

16:51 – 16:53 **Enikő MÉSZÁROS** (University of Szeged)

PLANT RESPONSES TO POLYETHYLENE-BASED PLASTICS: ROOT DEVELOPMENT
AND NITRO-OXIDATIVE STRESS (PF#PE8)

16:53 – 16:57 **Gréta MÓNOS** (Hungarian University of Agriculture and Life Sciences)

WEEDS AS VIRUS RESERVOIRS: VIROME OF A MAIZE FIELD IN THE NAGYCSEPELY
REGION (PF#PE9)

16:57 – 17:00 **Dóra BALÁZS** (University of Szeged)

RAPID MONITORING OF THE PRESENCE AND BIOACTIVITY OF PEPTAIBOLS
PRODUCED BY TRICHODERMA STRAINS FROM A HISTORICAL COLLECTION
(MI#PE1)

17:00 – 17:03 **Fanni KOVÁCS** (University of Szeged)

OPTIMIZATION OF LARGE-SCALE AND COST-EFFICIENT EXTRACTION METHODS FOR
PEPTAIBOL COMPOUNDS (MI#PE2)

17:03 – 17:06 **Bíborka PILLÉR** (Pázmány Péter Catholic University)

ENVIRONMENTAL REGULATION OF KILLER TOXIN DYNAMICS IN YEAST
POPULATIONS (MI#PE3)

17:06 – 17:09 **Veronica RECALDE-SOLIZ** (University of Debrecen)

ENVIRONMENTAL AND EVOLUTIONARY DRIVES OF AFLATOXIN DETOXIFICATION IN LACTIC ACID BACTERIA (MI#PE4)

17:09 – 17:12 **Nira PANDEY** (Hungarian University of Agriculture and Life Sciences)

HDR-MEDIATED INTRODUCTION OF A PATHOGENIC SCN5A VARIANT INTO A RABBIT MODEL OF LQT3 (MD#PE1)

17:12 – 17:15 **Márton Péter NYIRI** (ELTE Eötvös Loránd University)

EFFECT OF PLASTIC NANOPARTICLES ON THE AGGREGATION, STRUCTURE AND CYTOTOXICITY OF AMYLOIDOGENIC PROTEINS (MD#PE2)

17:15 – 17:18 **Chioma Lilian OZOADUCHE** (Hungarian University of Agriculture and Life Sciences)

ANTIBIOTIC RESISTANCE AND VIRULENCE DETERMINANTS OF PSEUDOMONAS AERUGINOSA ISOLATES CULTURED FROM HYDROCARBON-CONTAMINATED ENVIRONMENTAL SAMPLES (MD#PE3)

17:18 – 17:21 **Raed A. ABURAWASH** (Hungarian University of Agriculture and Life Sciences)

ESTABLISHMENT OF A PEROXIDASIN-LIKE KNOCKOUT NON-RODENT MODEL (AN#PE1)

17:21 – 17:24 **Gustavo DELGADO** (Hungarian University of Agriculture and Life Sciences)

EFFECT OF THE IN VITRO MATURATION CONDITIONS ON OOCYTE COMPETENCE (AN#PE2)

17:30 – 19:00 Poster section (wine & cheese)

19:00 – 21:00 Dinner (Art Hotel)

Welcome and award ceremony: **Prof. Dr. Elen GÓCZA** and **Dr. Péter POÓR** (University of Szeged)

Béla FARKAS (violin)

Friday (6 February)

9:45 – 12:00 Plant- and food biotechnology II.

Chairperson: Prof. Dr. Attila FEHÉR (University of Szeged)

9:45 – 10:00 Selahattin KONDAK (University of Szeged)

IMPROVING EFFECTS OF SEED PRIMING WITH DIFFERENT SIZED ZNO NANOPARTICLES IN ZINC-DEFICIENT SOLANUM LYCOPERSICUM L. CV. MANO

10:00 – 10:15 Auwalu ABDU (Hungarian University of Agriculture and Life Sciences)

The ROLE OF RNA-DIRECTED DNA METHYLATION IN BARLEY

10:15 – 10:30 Fruzsina NAGY (HUN-REN Biological Research Centre)

CHARACTERIZATION OF THE BRASSICA GROWTH REGULATORY E2F-RBR PATHWAY

10:30 – 10:45 Helga Fanni SCHUBERT (ELTE Eötvös Loránd University)

POTENTIAL OF GREEN MICROALGAE TO ENHANCE PLANT SALT TOLERANCE

10:45 – 11:00 Short break

11:00 – 11:15 Priyanka Pradeep PATIL (HUN-REN Biological Research Centre)

INVESTIGATION OF THE EFFECT OF SALT STRESS ON PHOTOSYNTHETIC ELECTRON TRANSPORT PATHWAYS IN EUKARYOTIC MICROALGAE

11:15 – 11:30 Kamal KANT (HUN-REN Biological Research Centre)

INCREASED EXPRESSION OF ATSPQ IMPROVES DROUGHT TOLERANCE IN BRASSICA NAPUS

11:30 – 11:45 Lilla SÍPOS (HUN-REN Biological Research Centre)

PHYSIOLOGICAL EFFECTS OF UVR8 PHOTORECEPTOR PHOSPHORYLATION IN ARABIDOPSIS THALIANA SEEDLINGS

11:45 – 12:00 Judit SZEIP (Budapest University of Technology and Economics)

PROBIOTIC COCOA POWDER FORMULATION PREPARED BY CONTINUOUS WET GRANULATION-BASED POWDER-TO-GRANULE LINE

12:00 – 13:30 Lunch (own expense)

13:30 – 17:00 Bioinformatics and Microbial biotechnology I.

Chairperson: Dr. László GALGÓCZY (University of Szeged)

13:30 – 14:00 Invited speaker Dr. Katalin GOMBOS (University of Pécs)

DATA-TO-DIAGNOSIS: INTEGRATING GENOMICS, BIOINFORMATICS, AND CLINICAL WORKFLOWS

14:00 – 14:15 Ádám HAJNAL (University of Szeged)

COMPUTATIONAL MODELING OF AUXIN-BINDING ABILITY IN PHI CLASS GLUTATHIONE TRANSFERASES

14:15 – 14:30 Attila HLACS (HUN-REN Biological Research Centre)

ROLE OF IN SILICO METHODS THROUGH REVEALING THE EFFECTS OF MOLECULAR INTERACTIONS BETWEEN BIOMOLECULES AND LIGANDS IN PREDICTION OF PROTEIN FUNCTIONS

14:30 – 14:45 Heltan M. MWALUGHA (University of Debrecen)

PHYSIOLOGICAL AND BIOCHEMICAL RESPONSES OF MAIZE (ZEA MAYS L.) TO TOXIGENIC AND ATOXIGENIC STRAINS OF ASPERGILLUS FLAVUS UNDER FIELD CONDITIONS

14:45 – 15:00 Sara SARDOU (University of Pannonia)

SENSING PROTEIN DEVELOPMENT USING CLICK DISPLAY TECHNOLOGY

15:00 – 15:30 Coffee break

15:30 – 17:00 Microbial biotechnology II.

Chairperson: Prof. Dr. Tünde PUSZTAHELYI (University of Debrecen)

15:30 – 15:45 Klaudia HOFFMANN (University of Szeged)

INTEGRATED ASSESSMENT OF EXTRACELLULAR ORGANIC MATTER-ENHANCED BIOREMEDIATION IN USED LUBRICANT OIL-CONTAMINATED SOILS: MICROBIAL RECOVERY, HYDROCARBON REMOVAL AND SPECIES-SPECIFIC TOXICITY RESPONSES

15:45 – 16:00 Yasmine WAZZANI (Hungarian University of Agriculture and Life Sciences)

RHIZOSPHERE MICROBIAL DYNAMICS ACROSS THREE MENTHA SPECIES AND THEIR ASSOCIATION WITH SOIL TRAITS AND ESSENTIAL OIL COMPOSITION

16:00 – 16:15 Dima DEEB (HUN-REN Biological Research Centre)

MICROALGAE POPULATIONS ARE GROWING DIFFERENTLY THAN EXPECTED

16:15 – 16:30 Annabella JUHÁSZ-ERDÉLYI (University of Szeged)

BOOSTING ANAEROBIC LIGNOCELLULOSE UTILIZATION VIA SYNTROPHIC INTERACTIONS

16:30 – 16:45 Valentina MADÁR (Pázmány Péter Catholic University)

EVOLUTION IN MULTICELLULAR YEAST SYSTEMS

16:45 – 17:00 Gergő TERNA (University of Szeged)

CHALLENGES IN THE PRACTICAL APPLICATIONS OF BIOACTIVE PEPTIBOLIS

17:00 Closing

Prof. Dr. Elen GÓCZA and Dr. Péter POÓR



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