



## Programme

# 7<sup>th</sup> National Conference of Young Biotechnologists

February 5-6, 2026.

Szeged



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 LAURINYEZ (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 SOMOSKŐI (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 CONSORTIA 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

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

PLASMA-ACTIVATED LIQUIDS IMPROVE OSMOTIC STRESS TOLERANCE OF PEA  
PLANTS

- 16:36 – 16:39 **Neda HESARI** (Hungarian University of Agriculture and Life Sciences)  
MOLECULAR INSIGHTS INTO HYPOXIA TOLERANCE IN WATERLOGGED CUCUMBER
- 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
- 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
- 16:45 – 16:48 **Dóra KONDAK** (University of Szeged)  
NITRIC OXIDE -RELEASING NANOPARTICLES ENHANCE TOMATO FRUIT DEFENSE AGAINST BOTRYTIS CINEREA
- 16:48 – 16:51 **Kamilla KOVÁCS** (University of Szeged)  
UNDER DOUBLE STRESS: INTERACTIONS BETWEEN THE EFFECTS OF HEAVY METALS AND PLASTICS ON PLANTS
- 16:51 – 16:53 **Enikő MÉSZÁROS** (University of Szeged)  
PLANT RESPONSES TO POLYETHYLENE-BASED PLASTICS: ROOT DEVELOPMENT AND NITRO-OXIDATIVE STRESS
- 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
- 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
- 17:00 – 17:03 **Fanni KOVÁCS** (University of Szeged)  
OPTIMIZATION OF LARGE-SCALE AND COST-EFFICIENT EXTRACTION METHODS FOR PEPTAIBOL COMPOUNDS
- 17:03 – 17:06 **Bíborka PILLÉR** (Pázmány Péter Catholic University)  
ENVIRONMENTAL REGULATION OF KILLER TOXIN DYNAMICS IN YEAST POPULATIONS
- 17:06 – 17:09 **Veronica RECALDE-SOLIZ** (University of Debrecen)  
ENVIRONMENTAL AND EVOLUTIONARY DRIVES OF AFLATOXIN DETOXIFICATION IN LACTIC ACID BACTERIA

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

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

EFFECT OF PLASTIC NANOPARTICLES ON THE AGGREGATION, STRUCTURE AND CYTOTOXICITY OF AMYLOIDOGENIC PROTEINS

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

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

ESTABLISHMENT OF A PEROXIDASE-LIKE KNOCKOUT NON-RODENT MODEL

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

EFFECT OF THE IN VITRO MATURATION CONDITIONS ON OOCYTE COMPETENCE

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 PEPTAIBOLS

17:00 Closing

Prof. Dr. Elen GÓCZA and Dr. Péter POÓR



**UNIVERSITY  
OF SZEGED**

Department of Plant Biology





## Poster section

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## Animal biotechnology

**Farr Hannah MONCOON** (Hungarian University of Agriculture and Life Sciences)  
THE DIFFERENCE IN AMINO ACID COMPOSITION OF AFRICAN CATFISH (CLARIAS GARIEPINUS) FED BLACK SOLDIER FLY LARVAE (AN#P1)

## Plant- and food biotechnology

**Mir Imtiyaz AHMAD** (Hungarian University of Agriculture and Life Sciences)  
DETECTION AND MOLECULAR CHARACTERIZATION OF ORYZA SATIVA ENDORNAVIRUS IN RICE CULTIVARS COLLECTED FROM SZARVAS, HUNGARY (PF#P1)

**Alaa AL JARF** (Hungarian University of Agriculture and Life Sciences)  
CHARACTERISATION THE PROMOTER REGION OF SP6A RESPONSIBLE FOR REGULATING TUBERIZATION IN THE POTATO CULTIVAR 'DÉSIRÉE' (PF#P2)

**Namira Nur ARFA** (HUN-REN Biological Research Centre)  
IMPROVING THE EFFICIENCY OF OLIGONUCLEOTIDE DELIVERY IN MAIZE VIA PEG-MEDIATED TRANSFORMATION AND LAYERED DOUBLE HYDROXYDE (LDH) NANOSHEET (PF#P3)

**Ali Amir ASAAD** (Hungarian University of Agriculture and Life Sciences)  
EVALUATING REGENERATIVE PERFORMANCE AND BIOACTIVE COMPOUND VARIATION IN SWEET BASIL THROUGH MICROPROPAGATION (PF#P4)

**Brandon CUSME** (Hungarian University of Agriculture and Life Sciences)  
INVESTIGATING THE ROLE OF WAT-1 AND OSML-15 IN THE DISEASE RESPONSE OF POTATO TO RALSTONIA SOLANACEARUM INFECTION (PF#P5)

**Krisztián Sándor JÁSZ** (University of Szeged)  
EXAMINATION OF HEAT-INDUCED FERROPTOTIC CELL DEATH (PF#P6)

**Roy KIAMBI** (Hungarian University of Agriculture and Life Sciences)  
INVASIVE PLANT, INVISIBLE COMPANIONS: THE SECRET VIROME OF ASCLEPIAS SYRIACA (PF#P7)

**Akhil KUMAR** (Hungarian University of Agriculture and Life Sciences)  
DISSECTING THE ROLE OF WRKY AND MAPK KINASE FAMILY MEMBERS IN RESISTANCE BREEDING TO RALSTONIA SOLANACEARUM INFECTION IN POTATO (PF#P8)

**Sumithlal KUNNUNMAL** (HUN-REN Biological Research Centre)  
UNRAVELING ASCORBATE TRANSPORT IN CHLOROPLASTS: INVESTIGATING THE ROLE OF PHT4;2 TRANSPORTER (PF#P9)

**Tetiana KYRPA** (HUN-REN Centre for Agricultural Research)  
GENOME EDITING OF THE CML30-TYPE AND THE EFFECT OF ITS KNOCKOUT ON THE ANTHOCYANINS SPECTRUM IN POTATOES (PF#P10)

**Noémi LACZKÓ** (HUN-REN Biological Research Centre)  
PGPR ISOLATED FROM THE ROOT ZONE OF HALOPHYTIC PLANT PETROSIMONIA TRIANDRA ENHANCE SALT TOLERANCE IN OTHER PLANT SPECIES (PF#P11)

**Lívia LÁSZLÓ** (Hungarian University of Agriculture and Life Sciences)  
ARBUSCULAR MYCORRHIZAL INOCULATION AND SUSCEPTIBILITY OF TOMATO TO  
*A. ALTERNATA*, *S. SCLEROTIORUM* OR *E. NEOLYCOPERSICI* (PF#P12)

**Nikolett LÁSZLÓ** (HUN-REN Biological Research Centre)  
IMPROVING CATIONIC POLYMER-BASED DNA DELIVERY IN MAIZE PROTOPLASTS  
(PF#P13)

**Brian Josue LEMUS** (Hungarian University of Agriculture and Life Sciences)  
ASSESSMENT OF ESSENTIAL COMPOUNDS IN IN VITRO MICROPROPAGATED  
ORIGANUM PLANTS (PF#P14)

**Bánk PÁPAI** (Hungarian University of Agriculture and Life Sciences)  
GIBBERELLIN-OXIDASE GENE EXPRESSION AND ITS ASSOCIATION WITH STEM  
ELONGATION IN TTI (TORTUOUS INTERNODII) MUTANT PEPPER (PF#P15)

**Rebeka PAPP** (University of Szeged)  
INVESTIGATION OF TOXICITY AND APLICABILITY OF TWO *SOLANUM LYCOPERSICUM*  
L.-DERIVED DEFENSINS (PF#P16)

**Sahilu Ahmad RABILU** (HUN-REN Biological Research Centre)  
SMALL PARAQUAT RESISTANCE (SPQ) PROTEIN REGULATES ABIOTIC STRESS  
RESPONSES IN ARABIDOPSIS (PF#P17)

**Ana RESTREPO** (Hungarian University of Agriculture and Life Sciences)  
PURPLE VS. GREEN *CAPSICUM ANNUUM* LEAVES RESPONSE TO *ALTERNARIA*  
*ALTERNATA* IN DETACHED LEAF ASSAY (PF#P18)

**Andrea Tímea TÓTH** (Hungarian University of Agriculture and Life Sciences)  
OPEN-FIELD TRIALS OF MYCORRHIZAL AND BACTERIAL INOCULATION ON YIELD  
AND SOIL PARAMETERS IN SUNFLOWER PRODUCTION IN DIFFERENT SOIL TYPES  
(PF#P19)

**Szabolcs Péter TÖRÖK** (HUN-REN Biological Research Centre)  
INTRODUCTION OF TRANSFORMING VECTOR AND MUTAGENIC SYNTHETIC  
OLIGONUCLEOTIDES INTO MAIZE APICAL MERISTEMS (PF#P20)

**Kristóf UTASSY** (Hungarian University of Agriculture and Life Sciences)  
GRAPEVINE-ASSOCIATED BACTERIA AND YEASTS IN CONTRASTING VINEYARD  
SYSTEMS (PF#P21)

## Microbial biotechnology

**Dániel HERCEGFALVI** (University of Szeged)

INVESTIGATION OF THE SURFACTIN PRODUCTION OF A *BACILLUS LICHENIFORMIS* STRAIN (MI#P1)

**Henriett HUNKÁR** (University of Szeged)

SOLVENT-BASED SEPARATION OF TRICHODERMA PEPTAIBIOTICS (MI#P2)

**Richárd MERBER** (University of Szeged)

COMPARATIVE RESISTANCE DEVELOPMENT OF *CANDIDOZYMA AURIS* TO AN ANTIFUNGAL PROTEIN (NFAP2), ANIDULAFUNGIN, AND AMPHOTERICIN B (MI#P3)

**Nomuun OYUNBAT** (University of Szeged)

IDENTIFICATION OF NEW PEPTAIBIOTIC SEQUENCES FROM TRICHODERMA VELUTINUM ISOLATES (MI#P4)

**Viktor SZENTPÉTERI** (Hungarian University of Agriculture and Life Sciences)

ISOLATION OF BENEFICIAL MICROBIAL STRAINS FROM DROUGHT-AFFECTED REGIONS OF HUNGARY (MI#P5)

**Bettina SZERENCSE** (University of Szeged)

ANTAGONISTIC EFFECT OF *CANDIDA ZEYLANOIDES* SZMC 26644 AGAINST PLANT PATHOGENIC MICROORGANISMS (MI#P6)

**Kitti TARI** (University of Szeged)

ALTERATION OF THE FUNGAL ENDOPHYTE SECRETOME INDUCED BY SODIUM BUTYRATE (MI#P7)