

INVITATION



UNIVERSITY OF DEBRECEN

Department of Molecular Biotechnology
and Microbiology, Institute of Biotechnology,
Faculty of Science and Technology,

Central Laboratory of Agricultural and Food
Products, Faculty of Agricultural and Food Sciences
and Environmental Management,

Centre for Agricultural Genomics and
Biotechnology,
Faculty of Agricultural and Food Sciences and
Environmental Management, and

HUN-REN-UD Fungal Stress
Biology Research Group

cordially invites you
to the

BIOTECHNOLOGY AT THE UNIVERSITY OF DEBRECEN – 2025 INTERNATIONAL SYMPOSIUM

16th October, 2025

Patron of the event:

Prof. Dr. Zoltán Bács
Chancellor of the University of Debrecen

DAB Headquarters Bognár Rezső Room
4032 Thomas Mann u. 49

8:30 **Registration**

Organizing Committee

István Pócsi professor UD FST Department of Molecular Biotechnology and Microbiology

Viktor Attila Ambrus assistant lecturer UD FST Department of Molecular Biotechnology and Microbiology

Judit Dobránszki scientific adviser UD FAFSEM Centre for Agricultural Genomics and Biotechnology

Tamás Emri professor UD FST Department of Molecular Biotechnology and Microbiology

Csaba Hegedűs professor UD FD Biomaterials and Prosthetic Dentistry

Erika Mészáros managing expert UD FST Department of Molecular Biotechnology and Microbiology

János András Mótyán associate professor UD FM Department of Biochemistry and Molecular Biology

Tünde Pusztahelyi professor UD FAFSEM Central Laboratory of Agricultural and Food Products

Boglárka Szabóné Szikszai head of Biotechnological R&D Department TAPI Hungary Industries Ltd., Debrecen, Hungary

János Tamás professor UD FAFSEM Water and Environmental Management Institute

László Tóth head of Biotechnology Process Development & Analytics, Gedeon Richter Plc.

Introduction

9:00–9:05 **Prof. Dr. István Pócsi**

Official opening

9:05–9:15 **Prof. Dr. Zoltán Bács**

SECTIONS

Section I. BIOTECHNOLOGY HORIZONS: SERVICES, OPPORTUNITIES AND FUTURE DIRECTIONS

Moderators: László Tóth, János András Mótyán

9:15–9:45 **María José Arce-Tomas**
THE BIOTECH REVOLUTION: ADVANCED THERAPEUTIC MEDICINAL PRODUCTS IN THE EU
MJAT Regulatory Affairs Consultancy, London, UK

9:45–10:00 **László Tóth**
BIOSIMILARS: CHALLENGES IN DEVELOPMENT, OPPORTUNITY FOR PATIENTS
Gedeon Richter Plc., Debrecen

10:00–10:15 **József Tózsér**
PROTEASES OF SARS-COV-2 AND RETROVIRUSES. WHAT IS COMMON AND WHAT IS DIFFERENT?
UD FM Department of Biochemistry and Molecular Biology, Debrecen

10:15–10:30 **János Kádas**
UD-GENOMED: BIOTECH SERVICES AND DEVELOPMENTS
UD-GenoMed Medical Genomic Technologies Ltd., Debrecen

10:30–10:45 **Nemere Varga**
ANTIBODY TROUBLESHOOTING: PRACTICAL SOLUTIONS FROM BD BIOSCIENCES
Becton Dickinson Hungary Kft., Környe

Section II. WORLD OF MYCOTOXINS

Moderators: Tünde Pusztahelyi, Attila Nagy

10:45–11:15 **Antonio Moretti**
THE VARIABILITY OF BIOSYNTHETIC GENE PATHWAYS OF MYCOTOXIGENIC FUNGI: A WORLD TO BE DISCOVERED
Research National Council of Italy, Institute of Sciences of Food Production, CNR-ISPA, Bari, Italy

11:15–11:30 **Attila Nagy**
THE CURRENT MYCOTOXIN SITUATION IN HUNGARY – A GENERAL OVERVIEW
National Food Chain Safety Office, Budapest, Hungary and Institute of Food Chain Science University of Veterinary Medicine Budapest, Hungary

11:30–11:45 **Tünde Pusztahelyi**
COMPETITIVE EXCLUSION OF *ASPERGILLUS FLAVUS* – EVALUATION OF *IN VITRO* AND MICROPLOT FIELD EXPERIMENTS
UD FAFSEM Central Laboratory of Agricultural and Food Products, Debrecen

11:45–12:00 **Eszter Andrea Virág**
HARNESSING NATURE AGAINST *FUSARIUM*: NEW BIOCONTROL SOLUTIONS FROM MEDICINAL PLANT RESEARCH
Research Institute for Medicinal Plants and Herbs Ltd, Budakalász

12:00–12:45 **COFFEE BREAK**

Section III. CUTTING EDGE METHODS IN INDUSTRIAL MICROBIOLOGY, BIOCATALYSIS, AND BIOPROCESS TECHNOLOGY

Moderators: István Molnár, Boglárka Szabóné Szikszai

12:45–13:15 **István Molnár**
SUGARCOATING – GLYCOSYLATION OF DRUG-LIKE NATURAL PRODUCTS IN A *SACCHAROMYCES CEREVISIAE* SYNTHETIC BIOLOGY CHASSIS
VTT Technical Research Centre, Espoo, Finland

13:15–13:30 **Andrea Zsuzsanna Ujvárosi**
THE MICROBIOLOGIST'S MODERN TOOLBOX
TAPI Hungary Industries Ltd., Debrecen, Hungary

13:30–13:45 **Zsuzsa Pótáriné Juhász**
INNOVATIVE REDOX BIOCATALYSIS WITH DOUBLE STEREOCONTROL
TAPI Hungary Industries Ltd., Debrecen, Hungary

13:45–14:00 **Zoltán Németh**
APPLIED INDUSTRIAL BIG DATA ANALYTICS TO OPTIMISE FERMENTATION IN TAPI
TAPI Hungary Industries Ltd., Debrecen, Hungary

Section IV. INNOVATIVE APPROACHES IN RED BIOTECHNOLOGY

Moderators: Tamás Emri, Csaba Hegedűs

14:00–14:30 **Zoltán Cseresnyés**
SYSTEMS BIOLOGY OF ORGAN-ON-CHIP MODELS
Research Group Applied Systems Biology, Leibniz Institute for Natural Product Research and Infection Biology (HKI), Jena, Germany

14:30–14:45 **Csaba Hegedűs**
IN VIVO AND *IN VITRO* INVESTIGATION OF DIFFERENT NOVEL SCAFFOLD SYSTEMS APPLICABLE FOR BONE REGENERATION IN DENTISTRY
UD FD Biomaterials and Prosthetic Dentistry, Debrecen

14:45–15:00 **Gábor György Szemán-Nagy**
SAFE BY DESIGN: EVALUATING THE TOXICITY AND BIOACTIVITY OF AEROGELS
UD FST Department of Molecular Biotechnology and Microbiology, Debrecen

15:00–15:15 **Tamás Emri**
TRANSCRIPTOMIC APPROACHES IN THE STUDY OF HUMAN PATHOGENIC FUNGI
Department of Molecular Biotechnology and Microbiology, Institute of Biotechnology, Faculty of Science and Technology, University of Debrecen, Debrecen, Hungary

Section V. ENVIRONMENTAL BIOTECHNOLOGY – BIOGAS

Moderator: István Pócsi

15:15–15:30 **Kornél Kovács**

RECENT TRENDS IN ANAEROBIC
BIOTECHNOLOGY R&D OF ENERGETIC
BIOMASS UTILIZATION.

*University of Szeged, Institute of Biology,
Department of Biotechnology and
Microbiology, and National Biomethane-
Biogas Green Energy Industrial
Association, Szeged, Hungary*

15:30–15:45 **János Tamás**

INTEGRATED BIOGAS PRODUCTION IN THE
AGRICULTURAL SECTOR
*UD FAFSEM WATER AND ENVIRONMENTAL
MANAGEMENT INSTITUTE, DEBRECEN;
NATIONAL WATER SCIENCE AND WATER
SECURITY LABORATORY*

15:45–16:00 **Poster award ceremony**

16:00–16:15 **Closing remarks**

Prof. Dr. István Pócsi

*UD FST Department of Molecular
Biotechnology and Microbiology*

16:15–17:00 **Reception and Poster session**

SPONSORS OF THE EVENT





Debreceni Egyetem Biotechnológia Tématerületi Kiválósági Program

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