

THE PROGRAM OF THE INTERNATIONAL INDUSTRIAL BIOTECHNOLOGY CONFERENCE BIOCON 2023

December 18, 2023 (Monday)

Cultural center "Almet", 69a Lenin Street

8:30–10:00

Registration & Morning coffee

9:20–9:40

A technical run-through for the speakers of today's sections and the open mic

10:00–10:15

Opening

10:15–11:30

Panel discussion

"Trends and prospects of biotechnology development"

Moderator

Mikhail Kurushkin (Chair of BIOCON, dean of BioTech ITMO)

- Prof. Meisam Tabatabaei (Malaysia), Universiti Malaysia Terengganu
- Prof. Amin Mousavi Khaneghah (Poland), Institute of Agricultural and Food Biotechnology
- Prof. Mirza Hasanuzzaman (Bangladesh), Sher-e-Bangla Agricultural University
- Prof. Mukesh Kumar Awasthi (China), Northwest A&F University
- PhD Aziza Oripova (Russia), head of advanced engineering school project office
- Nail Ulfatovich Maganov (Russia), General Director of PJSC Tatneft

11:30–11:45

Break

11:45–12:30

Plenary session "Crop responses and tolerance under environmental stress in the era of climate change"

Prof. Mirza Hasanuzzaman (Bangladesh), Sher-e-Bangla Agricultural University

12:30–14:30

Lunch. 3 streams

13:15–14:15

& Excursion to the Music Museum for 1st stream

14:30–15:15

Plenary session "Food contamination, food safety, mycotoxins, potentially toxic elements, pesticides, allergens and food process engineering"

Prof. Amin Mousavi Khaneghah (Poland), Institute of Agricultural and Food Biotechnology

15:15–15:30

Break

15:30–16:45

Moderator

15:30–16:00

16:00–16:15

16:15–16:30

16:30–16:45

Biotechnology session, Topic: BIOMATERIALS

Special guest

Irina Kurzina (Tomsk State University), **Polymer-based materials for targeted delivery**

Anastasiia Sapach (Skolkovo Institute of Science and Technology)

Cell therapy and cell-assisted drug delivery

Adelya Khayrova (Federal State Institution «Federal Research Centre «Fundamentals of Biotechnology»)
Development of technology for obtaining biopolymers from black soldier fly while processing organic waste

Elena Popova (Research Institute of hygiene, occupational pathology and human ecology FMBA of Russia, ITMO University), **Prospects for the use of polymer drug delivery systems**

16:45–17:00

Break

17:00–19:00

Moderator

Biotech Open Mic

Polina Khapaeva

Sofia Sirotenko (ITMO University, GPECH)

Polymer microcapsules for drug delivery

Evgenii Sogorin (Pushchino Scientific Center for Biological Research)

Ingredients: non-GMO, gluten-free, contains biologically active peptides

Alim Galimullin (Tatneft Charitable Foundation)

The development of bioclasses

Vasiliy Fofanov (ITMO University)

Bioavailability, biologically active additives, nutrition in extreme situations

Alexander Gordeev (Kazan Federal University)

Biosurfactants in agriculture, petroleum industry and material science

Julia Loban (ITMO University, GPECH), **One of the best wound coating for burn treatment**

Vladislav Dybalev (Altai State University), **Biotechnological conversation of wood**

Anastasia Kim (ITMO University), **The prospective of Bacillus Subtilis as a crucial culture in modern Urban Farming shown by an example of Natto**

Danila Kalinikin (AES Startup Factory)

Working with biotech startups from the inside: how to replicate the success of Silicon Valley

19:00–21:00

Welcome party & Networking

THE PROGRAM OF THE INTERNATIONAL INDUSTRIAL BIOTECHNOLOGY CONFERENCE BIOCON 2023

December 19, 2023 (Tuesday)

Cultural center "Almet", 69a Lenin Street

8:30–10:00

Registration & Morning coffee

9:20–9:40

A technical run-through for the speakers of today's sections

10:00–10:45

Plenary session "Organic waste biorefinery models toward sustainable circular bioeconomy, focusing on biomass to biofuels & biochemicals, bioenergy, and industrially important enzyme cocktails"

Prof. Mukesh Kumar Awasthi (China), Northwest A&F University

10:45–11:00

Break

11:00–12:45

Biotechnology session, Topic: Agriculture & Environment

Moderator

Roman Kozyrev (Rustark)

11:00–11:15

Polina Kuryntseva (Kazan Federal University)
Developing biotechnological approaches to reduce the carbon footprint of wheat

11:15–11:30

Suleiman Abdurashytov (Research Institute of Agriculture of Crimea)
How arbuscular mycorrhizas affect to growing plants

11:30–11:45

Subhrajit Barua (ITMO University)
Space Farming - A Less Explored Niche in Biotech

11:45–12:00

David Gabrielyan (Timiryazev Institute of Plant Physiology Russian Academy of Sciences)
Intensive cultivation of microalgae and cyanobacteria in closed flat-panel photobioreactors for production of valuable biomass

12:00–12:15

Liliya Biktasheva (Kazan Federal University)
Metagenomic and Culture-Based Analyses of Microbial Communities from Petroleum Reservoirs

12:15–12:30

Anna Gorbunova (Petroleum High School)
No-Till Impact on Soil Microbiome

12:45–14:40

Lunch. 3 streams

12:45–13:45

& Excursion to the Music Museum for 3rd stream

14:45–16:00

Biotechnology session, Topic: Viruses & Vaccines

Moderator

Yuriy Vasilev (R-Pharm)

14:45–15:15

Yury Vasilev (R-Pharm)

15:15–15:30

Dmitriy Polyanskiy (FSBI "NICEM named after. N. F. Gamaleya")
Development and scaling up of technology for producing heavy chain antibodies for therapy and emergency prevention of Covid-19

15:30–15:45

Dmitrii Vinogradov (Biolabmix & Biosan)
Genome editing, mRNA, PCR

15:45–16:00

Aleksei Miroliubov (Zoological Institut of RAS)
Tricks of the puppet masters: rhizocephalan influence on the host's nervous system

16:15–16:30

Break

16:30–18:30

Biotechnology session, Topic: Genomics & Structural biology

Moderator

Stanislav Koshechkin (Nobias Technologies)

16:30–17:00

Oleg Gusev (Juntendo University)
Comparative genomics, functional transcriptomics and biomimetics

17:00–17:30

Ivan Kulakovskiy (Institute of Protein Research RAS)
Bioinformatics for gene regulatory variants: from omics data to non-coding genetic determinants of human disorders

17:30–17:45

Eugene Korotkov (Federal State Institution «Federal Research Centre «Fundamentals of Biotechnology»)
Search for dispersed repeats in the genomes of some bacteria using an iterative procedure

17:45–18:00

Ilya Kolyadenko (Institute of Protein Research, ITMO's Advanced Engineering School)
Structure based engineering of industrial relevant Two-Domain Laccase from Streptomyces griseoflavus Ac-993

18:00–18:15

Alexander Gavrilenko (Lomonosov Moscow State University)
Application of protein language model to predict the protein's melting temperature and protein design

18:30–20:30

Free Time (Walking around the city :)

20:30–21:30

Documentary film showing in conjunction with the Nauka TV channel

THE PROGRAM OF THE INTERNATIONAL INDUSTRIAL BIOTECHNOLOGY CONFERENCE BIOCON 2023

December 20, 2023 (Wednesday)

Cultural center "Almet", 69a Lenin Street

9:00–10:40 **Tour of the Laboratory and Research Complex and the campus of the Petroleum High School**
216 Sovetskaya Street, Campus of Petroleum High School

11:00–12:00 **Registration & Morning coffee** Cultural center "Almet", 69a Lenin Street
11:20–11:40 **A technical run-through for the speakers of today's sections**

12:00–14:00 **Biotechnology session, Topic: Food Biotechnology**
Moderator Olesya Volokh, R&I Science & Nutrition Leader (ex Danone Russia)

12:00–12:15 Ludmila Alieva (North-Caucasus Federal University)
Chitosan in sustainable dairy production: I did it my way
12:15–12:30 Wang Hongwei (Biogrowing)
Advances in Starter Culture Development
12:30–12:45 Evgeniya Levik (Health & Nutrition)
Localization process of direct inoculation cultures for dairy products in Russia

12:45–13:00 Anna Nikiforova (East Siberia State University of Technology and Management)
The use of bacterial cultures for fish fermentation

13:00–13:15 Chantal Tracey
Intelligent and active food packaging for ensuring food quality and food safety

13:15–13:30 Sergei Shilov (Institute for Biological Instrumentation of the Russian Academy of Sciences)
Effects of Pre-exercise Supplementation with High Molecular Weight Peptides of Soy Protein Hydrolysate on Wistar Rats

13:30–13:45 Maria Gritsenko (ITMO University)
Cholesterol Oxidase – Based biosensor: A new detection method
13:45–14:00 Ksenia Rukhlyada (ITMO University)
Selection of conditions for the extraction of pigments from seaweed

14:00–15:40 **Lunch. 3 streams**
14:50–15:50 & Excursion to the Music Museum for for all those who did not have time

15:40–16:00 **Break**

16:00–17:30 **Biotechnology session, Topic: Gene Therapy**
Moderator Emil Bulatov (Kazan Federal University)

16:00–16:30 Kirill Lepik (Pavlov First St.Petersburg State Medical University)
Point-of-care model of hematopoietic cells-based gene and cell therapy: searching the way out of GCT crisis
16:30–16:45 Artemiy Kurishev (Engelgardt's Institute of Molecular Biology)
CRISPR Cas9 genome editing approach for understanding the functional role of ZNF536 in the pathogenesis of schizophrenia

16:45–17:00 Evgeny Lemeshko & Veronika Elkina (ITMO University)
Development of DNA nano constructs for RNA recognition and molecular computation
17:00–17:30 Emil Bulatov (Kazan Federal University)
CAR-T cell therapy - a new approach to cure untreatable cancer

17:30–17:45 **Break**

17:45–18:45 **Plenary session "The nexus of biorefineries, food security, sustainability, climate change, and health"**
Prof. Meisam Tabatabaei (Malaysia), Universiti Malaysia Terengganu

18:45–19:30 **Closing**

19:30–21:30 **Closing party & Activities**