

bioGENext

Next-Generation Therapy Conference

PROGRAM

17-20 September, Kyiv

event.fourwaves.com/biogenext



CONFERENCE OPENING TUESDAY SEPTEMBER 17

TIME	PROGRAM
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15:00	Participant registration
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15:00	Welcome coffee
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16:00	Welcome and important information
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KEYNOTE LECTURES

16:15	Janusz Bujnicki
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International Institute of Molecular and Cell Biology in Warsaw
Computational modeling of RNA 3D structure and interactions - towards therapeutic applications

17:00	Ben Kleinstiver
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Mass General Hospital & Harvard Medical School
Engineered Genome Editing Technologies Towards Therapeutics

17:45	Conference opening ceremony
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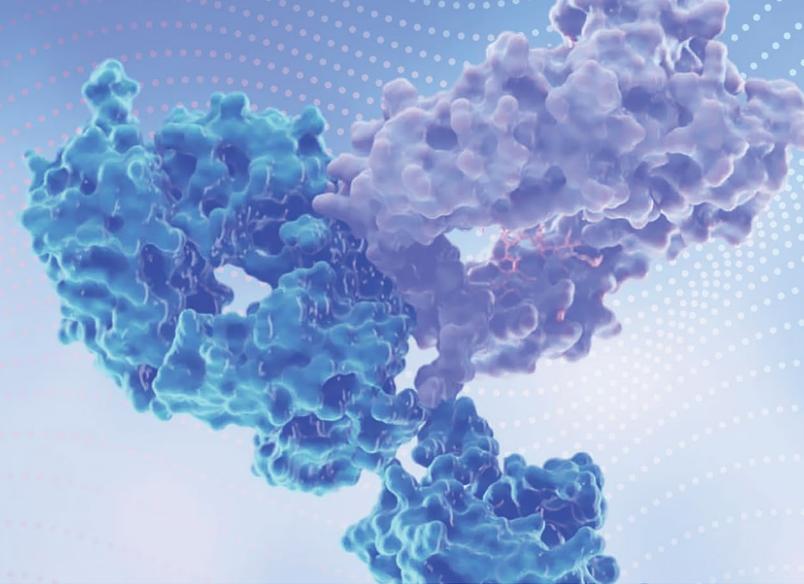
18:30	Welcome Reception
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KEYNOTE SPEAKERS

DAY 1

WEDNESDAY

SEPTEMBER 18



TIME PROGRAM

TIME	PROGRAM
09:00	Morning coffee
09:00	Workshop: Grant opportunities in biomedical research KAU, AcademCity
	RECOMBINANT PROTEINS AND MAB DEVELOPMENT TECHNOLOGIES
10:30	Yves Briers Ghent University Unleashing molecular lego inspired by bacteriophage evolution
10:55	Roman Sydor YURiA-PHARM Optimizing the process of high-producer cell line engineering for therapeutic mAb manufacturing
11:20	Tetiana Brodiazhenko Icosagen Cell Factory Unveiling the Potential of Phage Display in Antibody Discovery: A Revolution in Biotechnology

11:45 Coffee break

RECOMBINANT PROTEINS AND MAB DEVELOPMENT TECHNOLOGIES

12:15	Yana Sindarovska Institute of Cell Biology and Genetic Engineering NAS of Ukraine Production of recombinant proteins in plant systems through transient gene expression technology
12:40	Bozena Kaminska Nencki Institute of Experimental Biology, Polish Academy of Sciences Reinvigorating antitumor immunity in brain tumors with short peptides and siRNA-nanocarriers targeting the tumor microenvironment
13:05	Nataliia Shcherbak Institute of Cell Biology and Genetic Engineering NAS of Ukraine Heterologous expression of recombinant antibacterial proteins – bacteriocins in transgenic plants

13:30 Lunch

13:30 Virtual Poster Session

GENE EDITING TECHNOLOGIES AND APPLICATIONS IN MEDICINE

14:30 **Frank Buchholz**

TU Dresden

Engineering Designer-Recombinases for therapeutic genome editing

14:55 **Urte Neniskyte**

Vilnius University

Prime editing to fight monogenic disorders of the brain

15:20 **Oleg Dmytrenko**

Helmholtz Institute for RNA-based Infection Research (HIRI)

The Many Faces of Cas12a2: Delving into CRISPR's Hidden Diversity

15:45 Flash talks session

16:15 Coffee break

GENE EDITING TECHNOLOGIES AND APPLICATIONS IN MEDICINE

16:45 **Ganna Bilouseva**

University of Colorado Anschutz Medical Campus

An Autologous iPSC-based Gene Therapy for Inherited Skin Blistering Diseases Delivered via Cell Suspension

17:05 **Omar Abudayyeh and Joanthan Gootenberg**

Harvard Medical School

Programmable molecular technologies for genome editing and cell control

DAY 2

THURSDAY

SEPTEMBER 19



TIME PROGRAM

09:00 **Workshop:** CRISPR basics
Natalia Shenderovska, YURiA-PHARM LLC

09:00 Coffee break

BIOMARKERS AND MOLECULAR DIAGNOSTICS

10:00 **Inessa Skrypka**
Institute of Molecular Biology and Genetics of the National Academy of Sciences of Ukraine
Circulating cell-free Nucleic Acids as Promising Biomarkers for Precision Medicine

10:25 **Liudmyla Drobot**
Palladin Institute of Biochemistry of NAS of Ukraine
The adaptor protein Ruk/CIN85 is a novel key regulator of epithelial-mesenchymal plasticity in cancer cells and a potential therapeutic target

10:50 **Anna Dubrovskaya**
Helmholtz-Zentrum Dresden - Rossendorf, Institute of Radiooncology - OncoRay, Technische Universität Dresden
Biomarkers for individualized radiation therapy

11:15 Coffee break

BIOMARKERS AND MOLECULAR DIAGNOSTICS

11:45 **Sergiy Dzyadevych**
Institute of Molecular Biology and Genetics, National Academy of Sciences of Ukraine

Electrochemical enzyme biosensors for medical application

12:10 **Yaroslav Korpan**
Institute of Molecular Biology and Genetics, NAS of Ukraine
Recent advances in skin sensors for the detection of multi-target biomarkers

12:35 Flash Talks

13:05 Lunch

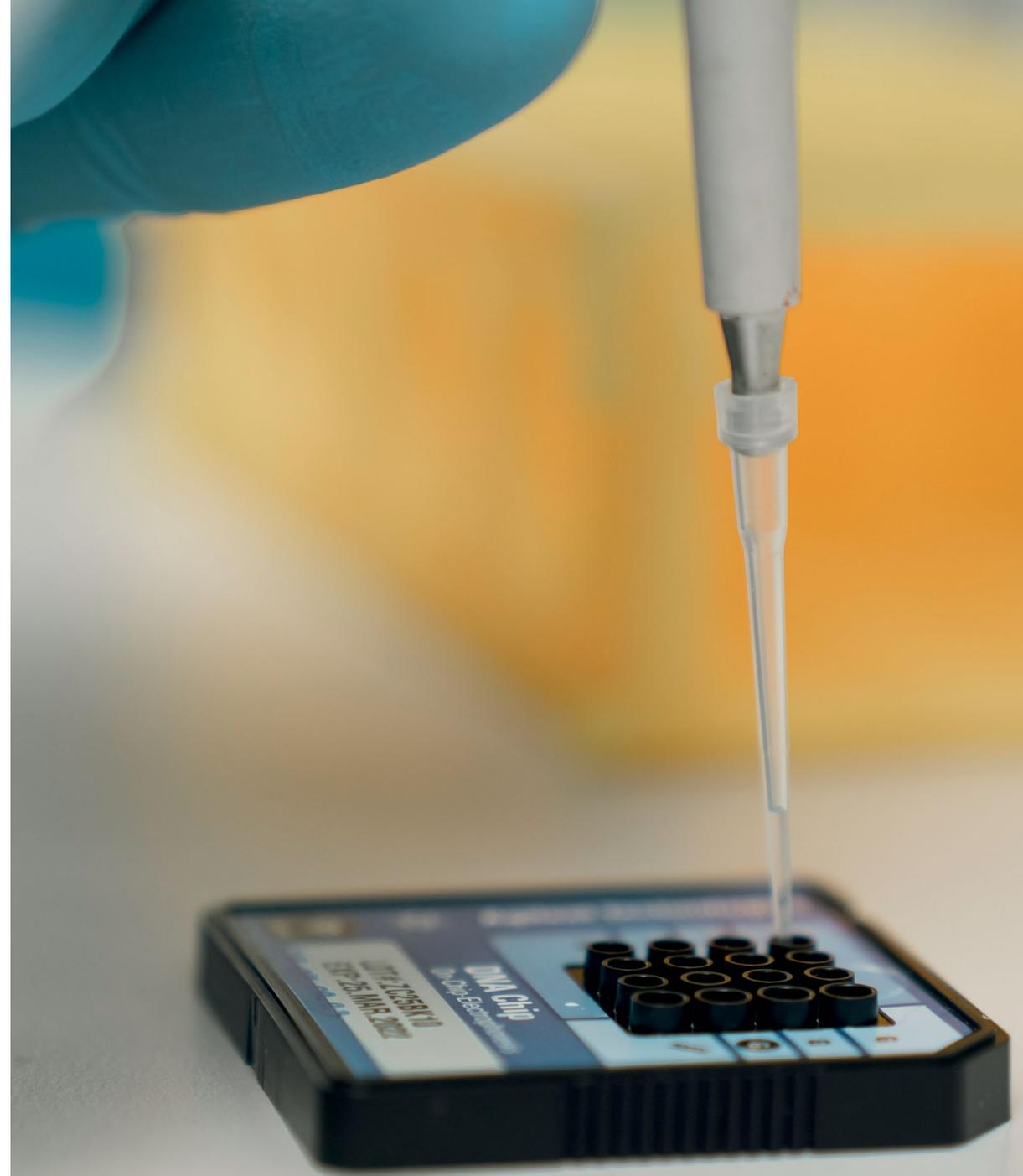
13:05 Virtual Poster Session

BIOMARKERS AND MOLECULAR
DIAGNOSTICS

BIOMARKERS AND MOLECULAR
DIAGNOSTICS

NUCLEIC-ACID THERAPEUTICS: TECHNOLOGIES AND APPLICATIONS

- 14:00 **Driss Boudeffa, Erica Schulze**
Business development managers, Sartorius
The New Era of Advanced Therapies
- 14:20 **Oleksandr Hubar**
YURiA-PHARM
Cap-less mRNAs, produced by flow reactor synthesis—
towards the development of a next-generation mRNA
therapeutics platform
- 14:45 **Tim Beisert**
TRON gGmbH
Trans-amplifying RNA – a versatile delivery system for
therapeutic proteins and RNAs
- 15:10 **Edward Grahame**
Cytiva
Nucleic acid therapeutics unlocked by lipid nanoparticle
technology
- 15:35 **Malgorzata Kaczorowska, Iryna Tsyhankova**
BioNTech
Liposome-Formulated mRNA Cancer Vaccines
- 16:00 Coffee break
- 16:30 **Panel Discussion:** Creating a strategy for the development
of the ecosystem for biomedical and biopharmaceutical
research in Ukraine: a synergistic approach



DAY 3

FRIDAY

SEPTEMBER 20



TIME PROGRAM

- 09:00 Morning coffee
- 09:00 **Workshop:** The Path of Innovation: From Research to Production
KAU, AcademCity

OTHER BIOMEDICAL RESEARCH

- 10:00 **Józef Dulak**
Jagiellonian University Department of Medical Biotechnology,
Faculty of Biochemistry Biophysics and Biotechnology
Beyond dystrophin: novel targets for modulation of
Duchenne muscular dystrophy
- 10:25 **Yuriy Rebets**
Explogen LLC
Searching for new natural products: from gene to
compound
- 10:50 **Olha Karaman**
National Cancer Institute
Chimeric antigen receptor (CAR) modified lymphocytes: our
experience to implementation the technology and
perspective to use CAR modified cytokine-induced killer cells

- 11:15 Flash Talks Session

- 12:05 Coffee break

OTHER BIOMEDICAL RESEARCH

- 12:30 **David Adams**
Wellcome Sanger Institute
Saturation genome editing to understand cancer genes at
nucleotide resolution
- 12:10 **Nana Voitenko**
Dobrobut Academy Medical School
3D-Printed Scaffolds for Spinal Cord and Peripheral Nerve
Injury Repair
- 12:35 **Daria Miroshnychenko**
Moffitt Cancer Center
Avoiding Extinction: How Cancer Cells Survive Treatment
- 13:00 Flash Talks Session

13:20 Virtual Poster Session

13:20 Lunch

COMPUTATIONAL BIOLOGY AND AI IN BIOMEDICAL RESEARCH

14:15 **Alexander Kornelyuk**

Institute of Molecular Biology and Genetics, NAS of Ukraine
Artificial intelligence and modeling of the 3D structure of intrinsically disordered proteins

14:40 **Oleksandr Petrenko**

Research Associate, Medical University of Vienna
Biological networks for disease mechanisms discovery

15:05 **Galyna Volynets**

Institute of Molecular Biology and Genetics, the NAS of Ukraine
Discovery of potent anti-tuberculosis agents targeting aminoacyl-tRNA synthetases

15:30 Virtual Flash Talks Session

16:00 Coffee break

COMPUTATIONAL BIOLOGY AND AI IN BIOMEDICAL RESEARCH

16:30 **Dina Schneidman**

School of Computer Science and Engineering
Structure modeling and design of antibody-antigen complexes using deep learning

16:55 **Maryna Korshevniuk**

Apixmed LLC
Understanding cell-type specific gene regulation via multi-omics technologies

17:20 **Maksym Korablyov**

Dream Fold
Development of AI-based platform for computational drug design and AI-assisted protein-protein and protein/ligand complex modelling

17:45 Conference closing