

Welcome by the BioGENext Organizing Committee

Dear colleagues,

Two years have passed since our first meeting at the inaugural BioGENext Conference in Kyiv in 2024. Back then, we decided that the circumstances around us should not stand in the way of scientific progress. We came together to learn from leading experts in genomic medicine, molecular diagnostics and bioinformatics. We shared our research and looked for partnerships that could make us stronger. We inspired one another and were inspired.

Today, in 2026, we are reminded that even in times of war, we must keep our standards high and our ambitions bold. This is how progress and innovation move forward and how we create solutions capable of changing the quality of life of tomorrow. Cancer, genetic disorders and infectious diseases will not disappear when the war ends. We must build the foundations for world-class biomedical research and biopharmaceutical development in Ukraine now, so that Ukrainian science and industry can contribute alongside leading developers of innovative medicines worldwide.

Yet turning promising scientific ideas into practical solutions requires more than the efforts of individual researchers, teams or companies. It requires an environment where science, education and industry interact, exchange expertise and create opportunities for one another.

BioGENext was created with this vision in mind.

This October, BioGENext returns for its second edition as a platform for collaboration between the Ukrainian biomedical community and the global scientific and biopharmaceutical ecosystem. The conference is built on the belief that strong academic-industry partnerships can help lay the founda-

tions for world-class biomedical research and development in Ukraine.

BioGENext was jointly initiated by YURiA-PHARM, the Institute of Molecular Biology and Genetics of the National Academy of Sciences of Ukraine, and NGO Unia Scientifica, with the support of BioLabTech, ALT, HLR, Empirica, Bionix-Lab, ALSI and ApixMed.

This year, the conference focuses on next-generation biomedical and biopharmaceutical research, including nucleic acid therapeutics, recombinant protein development, gene editing and advanced cell technologies, bioinformatics, molecular diagnostics and other emerging approaches to therapeutic development. Leading researchers and innovators from institutions and companies such as Harvard Medical School, the University of Tübingen, Wellcome Sanger Institute, Tahoe Therapeutics, Boltz and SINTEF will share their work alongside outstanding Ukrainian scientists and developers.

For Ukraine's scientific community, remaining connected to the global research landscape is more important than ever. We want Ukrainian researchers not only to follow the technologies shaping the future of medicine, but to actively contribute to shaping them as researchers, innovators and partners.

We are deeply grateful to the Armed Forces of Ukraine, whose courage and sacrifice make it possible for us to continue doing science, educating the next generation and building for the future, even in the midst of war.

We warmly welcome every contributor to this book and every participant of BioGENext Conference 2026. We hope this gathering will inspire new ideas, strengthen existing connections and create partnerships that will continue long after the conference ends.



Welcome to BioGENext 2026.

Sincerely,

BioGENext Organizing Committee

BioGENext Organizing Committee Co-Chairs:

Mykhailo Tukalo, Director of IMBG NASU, Full Member of NASU, Prof., Dr. Sci.

Nataliia Lytvynenko, Research and Development Director, YURiA-PHARM

Organizing Committee Members:

Lubov Lukash, Prof., Dr. Sci., Deputy Director for Scientific Work, IMBG NASU

Ganna Gerashchenko, Dr. Sci., Leading Research Scientist, Associate Editor of “Biopolymers and Cell”, IMBG NASU

Inna Makiyenko, Corporate Communications Manager, YURiA-PHARM

Natalia Shenderovska, PhD, Senior Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Nadiia Korotaieva, PhD, Senior Research Scientist, Odesa I. I. Mechnykov National University; Scientific Communication Manager, Biotechnology Products Development Department, YURiA-PHARM

Oksana Mankovska, PhD, Senior Research Scientist, IMBG NASU

Oleksandr Hubar, Head of Biotechnology Products Development Department, YURiA-PHARM

Svitlana Fadiieva, PhD, Marketing Director, YURiA-PHARM

Scientific Council and Scientific Committee of Conference

Anna El'skaya, Full Member of NASU, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Sergiy Yarmoluk, Corresponding Member of NASU, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Valery Filonenko, Full Member of NASU, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Volodymyr Kashuba, Corresponding Member of NASU, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Denis Kolibo, Corresponding Member of NASU, Prof., Dr. Sci., Director, O. V. Palladin Institute of Biochemistry, NAS of Ukraine

Boris Negrutskii, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Elena Kashuba, Prof., Dr. Sci., IEPOR NASU, Kyiv, Ukraine

Gennadiy Telegeev, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Maria Obolens'ka, Prof., Dr. Sci., IMBG NASU, Kyiv, Ukraine

Victor Dosenko, Prof., Dr. Sci., O. O. Bogomolets Institute of Physiology, NAS of Ukraine

Oksana Piven, Prof., Dr. Sci., Leading Researcher, IMBG NASU, Kyiv, Ukraine

Igor Dubey, Dr. Sci., Senior Staff Scientist, IMBG NASU, Kyiv, Ukraine

Vyacheslav Shalak, Dr. Sci., Leading Researcher, IMBG NASU, Kyiv, Ukraine

Olena Moshynets, Dr. Sci., IMBG NASU, Kyiv, Ukraine

Ihor Andreev, PhD, Leading Researcher, IMBG NASU, Kyiv, Ukraine

Oleksandr Hubar, Head of Biotechnology Products Development Department, YURiA-PHARM

Zenoviy Tkachuk, PhD, Senior Staff Scientist, IMBG NASU, Kyiv, Ukraine

Dmytro Krasnienkov, PhD, D. F. Chebotarev Institute of Gerontology NASU, Kyiv, Ukraine

Dmytro Semeniuk, PhD, Senior Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Galyna Volynets, PhD, Senior Staff Scientist, IMBG NASU, Kyiv, Ukraine

Inessa Skrypka, PhD, Senior Staff Scientist, IMBG NASU, Kyiv, Ukraine

Iryna Savinova, PhD, Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Iryna Starenka, Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Markiyan Samborskyi, PhD, Senior Bioinformatics Scientist, Explogen LLC

Nadiia Korotaieva, PhD, Senior Research Scientist, Odesa I. I. Mechnykov National University;
Scientific Communication Manager, Biotechnology Products Development Department, YURiA-PHARM

Nataliia Senchenko, Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Natalia Shenderovska, PhD, Senior Biotechnologist, Biotechnology Products Development
Department, YURiA-PHARM

Natalya Kozyrovska, PhD, Senior Staff Scientist, IMBG NASU, Kyiv, Ukraine

Nazarii Hrubiiian, Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Oksana Mankovska, PhD, Senior Research Scientist, IMBG NASU

Olha Karaman, PhD, Research Associate Professor, Stritch School of Medicine, Loyola University Chicago, USA

Pavlo Areshkov, PhD, Senior Staff Scientist, IMBG NASU, Kyiv, Ukraine

Roman Sydor, PhD, Senior Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Ruslan Vietrov, Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Serhii Palchevskyi, PhD, Senior Researcher, IMBG NASU, Kyiv, Ukraine

Sergii Kravchenko, PhD, Senior Researcher, IMBG NASU, Kyiv, Ukraine

Tetiana Bulyhina, PhD, ESC “Institute of Biology and Medicine”

Tetiana Papurina, Biotechnologist, Biotechnology Products Development Department, YURiA-PHARM

Viktor Makarenko, Lead Preclinical Research Specialist, Department of Preclinical
and Clinical Research, YURiA-PHARM

Yuliia Hubar, Senior Preclinical Trials Specialist, YURiA-PHARM

Yuliia Vinnyk, Leading Specialist in Preclinical Research, Department of Preclinical and Clinical Research

Alina Frolova, Junior Staff Scientist, IMBG NASU; Research Scientist, KAU

ORGANIZERS



YURiA-PHARM is a Ukrainian pharmaceutical group of companies with over 30-years of experience in development and production of therapeutics and medical devices. In 2015, we established a unique for Ukraine innovative R&D center focusing on biopharmaceutical research and development. Our work is enabled by a powerful set of technologies that cover all stages of the development cycle: from biomolecule design to pilot production of a therapeutic product. Our platforms include a broad range of synthetic biology approaches, a process development pipeline and an analytical toolkit for extensive product characterization and QC. Our fundamental and applied research in the field of recombinant proteins and nucleic acid-based therapeutics provide the basis for development of first-in-class medicines for complex and hard-to-treat diseases. Having created the most advanced multi-purpose infrastructure for biomedical research in Ukraine, we aim to transform our corporate R&D center into an R&D Hub that will provide opportunities for scientists from around the world to develop next generation therapeutics meant to save and improve patients' lives.



Institute of Molecular Biology and Genetics of National Academy of Sciences of Ukraine (IMBG of NASU) was founded in 1973. Since 2019 it is headed by Professor and Doctor of Sciences, Mykhailo Tukalo. IMBG is one of the leading Ukrainian academic institutions in the field of life sciences. Our research focuses on the current trends in molecular biology and genetics, such as: structural and functional genomics; proteomics and protein engineering; molecular and cellular biotechnology; bioinformatics, computational modeling and molecular design. The Institute has a long history of international collaborations, including Horizon-2020, CNRS, NATO, STCU, SCOPES projects *etc.* IMBG provides PhD and Master Degree Programs, which makes the Institute a kind of a research University and allows to encourage students and young scientists to pursue their scientific careers and develop scientific potential of Ukraine. The Council of Young Scientists, supported by the IMBG Scientific Council, conducts international young scientist conferences on modern aspects of molecular biology and genetics.



YP Biotech is a specialized R&D unit and innovative biopharmaceutical research center established in 2015 by the Ukrainian pharmaceutical company YURiA-PHARM. Based in Ukraine, it focuses on developing next-generation biotherapeutics, including recombinant proteins and nucleic acid-based therapies, covering the full cycle from molecular design to pilot production.



Unia Scientifica is a non-governmental organization founded by young scientists in Ukraine. Together with the «My Science» project, the organization is one of the main initiators and coordinators of Science Days — a nationwide popular science event held in scientific institutions across Ukraine since 2013.

PARTNERS



BioLabTech is a Ukrainian company with nearly 20 years of experience in delivering comprehensive laboratory solutions and a leading expert in next-generation sequencing (NGS) technologies in Ukraine. The company specializes in solutions for genomic research, molecular diagnostics, cell technologies, and complete laboratory infrastructure. By combining cutting-edge technologies from global manufacturers with extensive industry expertise, BioLabTech provides full project support — from technology selection and implementation to technical service and ongoing maintenance. BioLabTech actively promotes the adoption of advanced genomic technologies in scientific, medical, and biotechnology institutions across Ukraine.



ALT Ukraine is a Ukrainian company specializing in advanced solutions for cell and molecular biology, analytical and general laboratory equipment, microscopy, and cutting-edge laboratory technologies. As an official partner of Thermo Fisher Scientific, the company supplies instrumentation, reagents, and laboratory consumables while providing comprehensive technical, service, and application support to research, clinical, and governmental institutions. ALT Ukraine's key areas of expertise include forensic genetics and human identification, implementation of next-generation sequencing (NGS) technologies, molecular diagnostics, and the development of integrated laboratory solutions for genomics, personalized medicine, biotechnology, and next-generation therapeutic applications. ALT Ukraine connects researchers with innovative technologies, helping transform scientific discoveries into advances in medicine, biotechnology, and healthcare.



рішення для лабораторій

HLR (Himlaborreactiv) is one of Ukraine's leading providers of laboratory solutions, helping shape the future of science together with the country's research community. Rather than simply supplying instruments, HLR delivers comprehensive, tailor-made solutions designed around the specific needs of each customer. This approach is built on more than 30 years of experience, supported by a team of over 450 technical specialists and partnerships with leading global manufacturers of scientific equipment. To ensure the highest standards of service and reliability, the company operates under ISO 9001 certification, maintains a 22,000 m² logistics and warehouse infrastructure, and provides 24/7 technical and service support. HLR enables researchers and laboratories to access advanced technologies through expert support, extensive infrastructure, and tailored solutions.



BIONIX LAB delivers advanced laboratory technologies for genetics, molecular biology, and diagnostics. We help research, clinical, veterinary, food, and pharmaceutical laboratories achieve reliable results through innovative equipment, trusted global partnerships, and expert scientific support. Based in Kyiv and serving the scientific community since 2009.



Medical Company Empirica LLC brings global medical technologies to healthcare and research organizations in Ukraine, helping implement modern diagnostic solutions in laboratory practice. The company works with international manufacturers and provides comprehensive support — from technology selection and implementation to training and service. Scientific research is the foundation of advanced diagnostic technologies. Empirica

values collaboration with the scientific community and supports knowledge exchange that contributes to professional growth and the wider adoption of evidence-based approaches in healthcare.



ALSI LTD is a Ukrainian supplier of modern laboratory equipment, high-quality chemical and biochemical reagents, consumables, and integrated solutions for chemical, microbiological, analytical, and quality-control laboratories. Founded in 1994, the company has nearly 30 years of experience supporting laboratories across the pharmaceutical, food, agricultural, energy, chemical, research, and other industrial sectors in Ukraine. ALSI offers access to more than 10,000 models of laboratory instruments, over 1 million chemical and biochemical reagents, and more than 500,000 types of consumables from trusted global manufacturers. Beyond equipment and reagent supply, the company provides comprehensive technical and application support, including equipment installation and maintenance, method adaptation, sample preparation solutions, expert consultations, and user training. By combining extensive industry expertise with a broad product portfolio and professional service, ALSI helps Ukrainian laboratories implement reliable analytical technologies and maintain high standards of quality, accuracy, and reproducibility.