

National Center for Biotechnology

International Scientific Conference

ASTANA BIOTECH 2024

**DEDICATED TO THE 30TH ANNIVERSARY OF
THE NATIONAL CENTER FOR
BIOTECHNOLOGY**

Conference program

Astana

September 12-13, 2024

Conference schedule “ASTANA BIOTECH 2024”

Name of the Event	September 12th Thursday	September 13th Friday
Conference participants registration	08:00-09:20 Lobby 1st floor	
General session	09:20-13:30 Assembly hall 5th floor	
Poster session	14:30-15:15 Lobby 2nd floor	
Section 1 Biomedical Technologies	15:15-18:15 Assembly hall 5th floor	9:30-13:30 Assembly hall 5th floor
Section 2 Innovative Biotechnologies for Agriculture	15:15-18:00 Conference room №A100 1st floor	09:30-13:30 Conference room №A320 3rd floor
Section 3 Biotechnologies for Ecology, Food, and Processing Industries	15:15-18:00 Conference room №A320 3rd floor	
Section 4 Biological Safety and Biosecurity		09:30-13:30 Conference room №A100 1st floor
Exhibition of Biotechnological Products and Laboratory Equipment	08:30-18:00 Lobby 1st floor	09:00-15:00 Lobby 1st floor
Conference Closing and Awards Ceremony		14:30-15:00 Assembly hall 5th floor

Symposium Schedule “Regional Flora of Kazakhstan: Diversity, Genetics, and Conservation”

Name of the Event	September 12th Thursday	September 13th Friday
Conference participants registration	08:00-09:20 Lobby 1st floor	
General session	09:20-13:30 Assembly hall 5th floor	
Poster session	14:30-15:15 Lobby 2nd floor	
Symposium "Regional Flora of Kazakhstan: Diversity, Genetics, and Conservation"	15:15-19:00 Assembly hall №A200 2nd floor	09:30-13:30 Assembly hall №A200 2nd floor
Exhibition of Biotechnological Products and Laboratory Equipment	08:30-18:00 Lobby 1st floor	09:00-15:00 Lobby 1st floor
Conference Closing and Awards Ceremony		14:30-15:00 Assembly hall 5th floor

General session

September 12, 2024

09:20 – 13:30

Assembly hall, 5th floor

Moderators:	<i>Dos Sarbassov, Vyacheslav Ogay</i>
09.20-10.00	<p>Conference opening <i>Welcoming speech</i> Kunsulu D. Zakarya Adviser to the President of the Republic of Kazakhstan on Science and Innovation Timur S. Sultangaziyev First Vice Minister of Health of the Republic of Kazakhstan Ayan S. Ramazan Deputy Chairman of the Science Committee of the MSHE Yergali O. Abduraimov General Director of JSC National Holding “QazBioPharm”</p>
10.00-10.20	<p>National Center for Biotechnology: past, present, and future Vyacheslav B. Ogay Acting Director General of the LLP “National Center for Biotechnology”, Astana Kazakhstan</p>
10.20-10.40	<p>Targeting of KRAS mutant cancers: transforming challenges to the opportunity Dos Sarbassov Director General of the National Laboratory Astana, Nazarbayev University, Astana, Kazakhstan</p>
10.40-11.00	<p>Development and Production of Domestic Original Medicines Amankeldi K. Sadanov Director General of LLP "Research and Development Centre for Microbiology and Virology", Almaty, Kazakhstan</p>
11.00-11.30	Coffee break (coffee break will take place on the 1st and 5th floors)
11.30-11.50	<p>How to Turn a Scientific Idea into a Medical Device for Practical Use Kuvat T. Momynaliev Docent of Biological Sciences, associate professor, Federal State Budgetary Institution "All-Russian Scientific Research and Testing Institute of Medical Equipment" of Roszdravnadzor, Moscow, Russia</p>
11.50-12.10	<p>Genome -Wide Association Mapping of Yield Components in Soft Wheat Yerlan K. Turuspekov Head of the laboratory of Molecular Genetics RSE “Institute of Biology and Plant Biotechnology” Almaty, Kazakhstan</p>
12.10-12.30	<p>Recent developments in the examination of the biology and antibiotic resistance mechanisms of anaerobic pathogens József Sóki Assistant Professor, University of Szeged. Institute of Medical Microbiology, Hungary</p>

<p>12.30-12.50</p>	<p>Population Structure of <i>Mycobacterium tuberculosis</i>: A Brief Overview of Some Factors Influencing Its Formation Igor V. Mokrousov The Head of the Laboratory of Molecular Epidemiology and Evolutionary Genetics at St. Petersburg Pasteur Institute, Saint Petersburg, Russia</p>
<p>12.50-13.10</p>	<p>Study of microRNA and Mitochondrial DNA as Potential Biomarkers of Lung Cancer Rakhmetkazhy I. Bersimbay Director of the Research Institute of Cell Biology and Biotechnology, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan</p>
<p>13.10-13.30</p>	<p>Growing spheroids in a continuously perfusable microfluidic chip Rafael Song Division of Engineering, New York University Abu Dhabi (NYUAD) Department of Biomedical Engineering, Tandon School of Engineering, New York University, USA</p>
<p>13.30-13.40</p>	<p>Group Photo (Main Entrance of the National Center for Biotechnology)</p>
<p>13.40-14.30</p>	<p>Lunch break (Lunch will be served on the 1st and 5th floors)</p>
<p>14.30-15.15</p>	<p>Poster session</p>

Symposium
"Regional Flora of Kazakhstan:
Diversity, Genetics, and Conservation"

September 12, 2024

15:15 – 19:00

Conference room №A200

Moderators:	<i>Shuga Askarovna Manabayeva</i>
15.15-15.30	The <i>Lamiaceae</i> Family in the Flora of Central Kazakhstan Margarita Y. Ishmuratova Research Professor, Karaganda University named after Academician E.A. Buketov, Karaganda, Kazakhstan
15.30-15.45	Biometric Parameters of Seeds as a Practical Method for Identifying Rare Species of the Genus <i>Tulipa</i> L. (<i>Liliaceae</i> Juss.) from East Kazakhstan Region (Kazakhstan) Aidar A. Sumbebayev Director General, leading researcher, "Altai Botanical Garden", Ridder, Kazakhstan
15.45-16.00	Preliminary Analysis of the Flora of Akmola Region Saule K. Muhtubayeva Head of the Laboratory of Flora and Plant Resources, Astana Botanical Garden, Astana, Kazakhstan
16.00-16.15	DNA-Barcoding of Medicinal Plant Species from the Kostanay Region Almagul K. Apsalamovna Head of the laboratory of biotechnology and plant breeding, "National Center for Biotechnology", Astana, Kazakhstan
16.15-16.30	Micropropagation of two medicinal plant species of <i>ungernia bunge</i> (u. <i>Sewertzowii</i> (Regel) B. Fedtsch. and <i>U. Victoris</i> Vved. ex Artjush.) as the source of biologically active compounds Feruza U. Mustafina Head of the Laboratory of Biotechnology, Botanical Garden named after F.N. Rusanova, Tashkent, Uzbekistan
16.30-17.00	Coffee break (1st floor)
17.00-17.15	Assessment of Plant Genetic Diversity Using Retrotransposons Oksana N. Khapilina Head of the Laboratory of Plant Genomics and Bioinformatics, "National Center for Biotechnology", Astana, Kazakhstan
17.15-17.30	Genetic diversity and digital documentation of Kazakhstan's flora Saule I. Abugaliyeva Principal Research Scientist, "Institute of Biology and Biotechnology of Plants," Almaty, Kazakhstan

17.30-17.45	The perspectives of microclonal propagation of <i>Acer platanoides</i> L. Crimson king (<i>Aceraceae</i> Juss.) Juraeva Hanifabonu Kobil kizi Junior researcher of the Botanical Garden named after F.N. Rusanova, Tashkent, Uzbekistan
17.45-18.00	Insight into chloroplast genome structural variation of endangered species of the genus <i>Tulipa</i> L. In Kazakhstan Tussipkan Dilnur Leading researcher, “National Center of Biotechnology”, Astana, Kazakhstan
18.00-18.15	Preliminary analysis of flora of Akmola region Serik A. Kubentayev Leading researcher, Astana Botanical Garden, Astana, Kazakhstan
18.15-18.30	Practical experience of short-range sequencing of chloroplast genomes Alexandr B. Shevtsov Head of the laboratory of Applied Genetics, “National Center for Biotechnology”, Astana, Kazakhstan
18.30-18.45	Old-growth forests of Kostanay region Saule A. Koblanova Senior researcher, “National Center for Biotechnology”, Astana, Kazakhstan
18.45-19.00	Study of rare and endangered plants of the Akmola region Daniyar T. Alibekov Senior researcher, Astana Botanical Garden, Astana, Kazakhstan
September 13, 2024	
9:30 – 13:30	
Conference room №A200	
Moderators:	<i>Margarita Yulayevna Ishmuratova</i>
09.30-09.45	Experience of digitizing and publishing the QAR herbarium through the GBIF portal Natalya V. Ivanova Senior researcher, IMPB RAS - a branch of the M.V. Keldysh Institute of Applied Mathematics, RAS, Moscow, Russia
09.45-10.00	Plastid genome sequencing of <i>Tulipa</i> species from Kazakhstan: insights into genomic structure, repeats, nucleotide diversity, and phylogenetic relationships Shyryn S. Almerikova Leading researcher, “Institute of Biology and Plant Biotechnology” Almaty, Kazakhstan
10.00-10.15	Taxonomic and ecological characteristics of flora of the Mangistau region Akzhunis A. Imanbayeva (online) Director General “Mangyshlak Experimental Botanical Garden” Aktau, Kazakhstan.
10.15-10.30	Preliminary brief analysis of species composition of flora of the Kostanay region based on herbarium materials and field studies Gulmira A. Abileva Junior researcher, “National Center for Biotechnology”, Astana, Kazakhstan

10.30-10.45	Taxonomic and ecological characteristics of flora Ivan F. Belozarov (online) Deputy General Director for Science, RSE “Mangyshlak Experimental Botanical Garden” Aktau, Kazakhstan.
10.45-11.00	Genetic diversity and population structure of <i>Juniperus seravschanica</i> Kom. in central asia revealed by microsatellite markers Moldir M. Yermagambetova Research scientist, “Institute of Biology and Plant Biotechnology” Almaty, Kazakhstan
11.00-11.30	Coffee break (1st floor)
11.30-11.45	Biochemical assessment of promising seedlings and forms of sea buckthorn (<i>Hippophae rhamnoides</i>) in an introduction population (Altai Botanical Garden) Tatyana A. Vdovina (online) Leading researcher, “Altai Botanical Garden”, Ridder, Kazakhstan
11.45-12.00	Introduction of a rare relic species <i>Allium microdictyon</i> Prokh. in the apothecary garden of the Altai botanical garden Alevtina N. Danilova (online) Leading researcher, “Altai Botanical Garden”, Ridder, Kazakhstan
12.00-12.15	Low positive temperatures as a factor stimulating antioxidant activity and the synthesis of valuable biologically active substances in microclones of <i>Juglans regia</i> L. <i>in vitro</i> Nina V. Terletsckaya (online) Head of the laboratory of ecological plant physiology, “Institute of Genetics and Physiology”, Almaty, Kazakhstan
12.15-12.30	Phylogenetic analysis of rare and endangered <i>Tulipa</i> species (<i>Liliaceae</i>) of Kazakhstan based on universal barcoding markers Maxim Y. Sututla (online) Leading researcher, “National Center for Biotechnology”, Astana, Kazakhstan
12.30-12.50	Creation of an electronic database for the systematization of flora in Kazakhstan Vladislav A. Shevtsov Researcher, “National Center for Biotechnology”, Astana, Kazakhstan
13.50-13.30	Consideration of the issue and adoption of a resolution on protected areas

**SECTION 1
BIOMEDICAL TECHNOLOGIES**

September 12, 2024

15:15 – 18:15

Assembly hall, 5th floor

Moderators:	<i>Maksim Leonidovich Filipenko, Elena Vitalievna Zholdybayeva</i>
15.15-15.30	Application of Flow Cytometry in Immunological Studies Andrey Y. Goncharov Director of the State Scientific Institution 'Institute of Biophysics and Cell Engineering of the National Academy of Sciences of Belarus,' Minsk, Belarus
15.30-15.45	Strategy for creating a new generation of natural medicines through the lens of microbiology Valeriy N. Danilenko Head of the Department of Genetic Foundations of Biotechnology, N.I. Vavilov Institute of General Genetics, Russian Academy of Sciences, Moscow, Russia
15.45-16.00	Development of new natural and synthetic enzymes for isothermal amplification of RNA and DNA Maksim L. Filipenko Head of the Laboratory of Pharmacogenomics, “Institute of Chemical Biology and Fundamental Medicine”, Novosibirsk, Russia
16.00-16.15	Signaling mechanisms as factors of physiological regulation: rodentins and glycogen synthase kinase 3β targets." Kenes T. Yerimbetov Professor, MIREA - Russian Technological University, Moscow, Russia
16.15-16.25	CAR-T cellular therapy: Transition from research to production Anton Vitovtov Research adviser, Zalma Ltd., Kazakhstan
16.25-16.35	Current status and prospects of implementation of therapy on the technology of chimeric antigen receptor in Kazakhstan Alexander V. Shustov Head of the Laboratory of Genetic Engineering, “National Center for Biotechnology”, Astana, Kazakhstan
16.35-17.00	Coffee break (5th floor)
17.00-17.15	Structure of the genotypes of mycobacteria tuberculosis in Omsk region - the border region with Kazakhstan Anna A. Vyazovaya Senior Researcher, Pasteur Institute of Epidemiology and Microbiology, St. Petersburg, Russia
17.15-17.30	New vaccine Pollenvax for the immuno-therapy of allergic rhinitis and asthma caused by pollen Kaysar K. Tabynov (online) Director of the International Center for Vaccinology, Kazakh National Agrarian Research University, Almaty, Kazakhstan

17.30-17.45	Analytical methods in pre-clinical studies Anastasiya S. Kirichenko Head of the Testing Center of the Complex "Center for Preclinical and Translational Research," V.A. Almazov National Medical Research Center, Ministry of Health of Russia, St. Petersburg, Russia
17.45-18.00	Making the impossible possible: new horizons of 4-D proteomics and metabolomics Valeriya Kuzyk Field application scientist, Bruker Daltonics GmbH, Голландия
18.00-18.15	Review of the pharmaceutical market of the republic of Kazakhstan in the segment of biological, biotechnology drugs Karlygash A. Zhaparkulova Head of the Department of Biotechnology, School of Pharmacy, S.D. Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan

September 13, 2024

09:30 – 13:30

Assembly hall, 5th floor

Moderators:	<i>Valeriy Nikolayevich Danilenko , Pavel Viktorovich Tarlykov</i>
09.30-09.45	Data driven and cell specific determination of nuclei-associated actin structure Nina Nikitina (online) Ph.D. candidate, Boise State University, USA
09.45-10.00	Clinical-genetic aspects of breast and prostate cancer development in the Kazakh population based on DNA-targeting typing and sequencing Gulnur S. Zhunusova General Director of RSE 'Institute of Genetics and Physiology,' Kazakh National Medical University, Almaty, Kazakhstan
10.00-10.15	TAM receptors in the pathology of bladder cancer: approaches to personalised medicine Marina Kryazhevskaya Associate Professor, Nazarbayev University, Astana, Kazakhstan
10.15-10.30	Application of fluorescence microscopy and immunoenzymatic methods for the study of neurotoxins in tuberculosis infection in children (report prepared with the support of the Russian Science Foundation grant No. 23-25-10043) Dmitry G. Novikov Head of the Central Research Laboratory, Omsk State Medical University, Omsk, Russia
10.30-10.45	Digital PCR: Modern approaches in biomedical research Alina Korovkina Manager Sales Development, LS - dPCR, PCR, LS Genomics, ER2i, Вена, Австрия
10.45-11.00	Genetic risk factors for the development of brain arteriovenous malformations (AVMs) Elena V. Zholdybayeva Head of the National laboratory of biotechnology (common use facility), “National Center for Biotechnology” Astana, Kazakhstan

11.00-11.30	Coffee break (5th floor)
11.30-11.45	Study of genetic diversity of <i>Mycobacterium tuberculosis</i> isolates in Kazakhstan using whole-genome sequencing Pavel V. Tarlykov Head of the Laboratory of Proteomics and Mass Spectrometry, “National Center for Biotechnology” Astana, Kazakhstan
11.45-12.00	Experience with the use of targeted sequencing in routine diagnosis of MDR-TB (multidrug-resistant tuberculosis) Nikolay Bubeev Executive Partner Account Specialist, Illumina GmbH, Germany
12.00-12.15	Application of biomedical technologies in the treatment of tuberculosis: synthesis of nanoparticles, optimization, and enhancement of drug efficacy Aldana R. Galiyeva Leading researcher, Karaganda University named after E.A. Buketov, Karaganda, Kazakhstan.
12.15-12.30	<i>Fusobacterium nucleatum</i> in biopsied tissues from colorectal cancer of Kazakhstani patients Gulmira N. Kulmambetova Leading researcher, “National Center for Biotechnology” Astana, Kazakhstan
12.30-12.45	Personalized therapy with biological drugs Saule S. Burkitbayeva Associate Professor, Department of Clinical Pharmacology, “Astana Medical University”, Astana, Kazakhstan
12.45-13.00	Cloning and expression of bacterial glycosidase genes as a stage in creating molecular tools for targeted modification of antigenic determinants Olga M. Koneva Junior Researcher, Belarusian State University, Minsk, Belarus
13.00-13.10	Synthesis and study of macroporous biopolymers for tissue engineering Gulshahar K. Kudaiberen Senior Researcher of the Stem Cell Laboratory, 'National Center for Biotechnology,' Astana, Kazakhstan
13.10-13.20	Dynamic monitoring of <i>Acinetobacter baumannii</i> infection in multidisciplinary hospital Nazgul S. Sutimbekova Ph.D. candidate, “Astana Medical University”, Astana, Kazakhstan
13.20-13.30	The therapeutic potential of preconditioned mesenchymal stem cells in atherosclerosis Aliya Sekenova Research scientists, “National Center for Biotechnology” Astana, Kazakhstan
13.30-14.30	Lunch break (5th floor)
14.30-15.00	Conference Closing and Awards Ceremony

17.45-18.00	Biologically safe wound dressings based on natural polymers Zhanar S. Akhmetkarimova Head of the Laboratory of Toxicology and Pharmacology, “National Center for Biotechnology” Astana, Kazakhstan
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September 13, 2024

9:30 – 13:30

Conference room №A320

Moderators:	<i>Rusla Nikolayevich Kalendar, Almagul Kakimzhanovna Apsalamova</i>
9.30-9.45	Development of new forms of biologically active substances for use in medicine and veterinary medicine Kenes T. Yerimbetov Professor, MIREA - Russian Technological University, Moscow, Russia
9.45-10.00	Comparative analysis and phylogenetics of <i>Cornus sanguinea</i> and <i>Cornus sericea</i> Eugenia Nikonorova Leading Researcher, All-Russian Scientific Research Institute of Medicinal and Aromatic Plants (VILAR), Москва, Россия
10.00-10.15	Cell technology for creating next-generation bioproducts to increase crop yield and resilience Nazira K. Bishimbayeva Chief Research Scientist, Al-Farabi Kazakh National University, Research Institute of Biology and Biotechnology Problems, Almaty, Kazakhstan
10.15-10.30	Use of new technologies to enhance agricultural efficiency and conserve biodiversity Shuga A. Manabayeva Head of the Laboratory of Plants Genetic Engineering, “National Center for Biotechnology” Astana, Kazakhstan
10.30-10.45	Development of modern enzyme preparations for use in agriculture Ivan N. Zorov Senior Researcher, Federal Research Center 'Fundamental Bases of Biotechnology,' Russian Academy of Sciences, Moscow, Russia
10.45-11.00	MALDI TOF and Infrared Technologies in food, veterinary and agricultural microbiology Diana Kalinina Senior Global Product Manager at Bruker Microbiology & Infection Diagnostics, Germany
11.00-11.45	Coffee break (5th floor)
11.45-12.00	Identification candidate SSR, SNPs and genes associated salt tolerance in Asiatic cotton (<i>Gossypium arboreum</i>) Tussipkan Dilnur Ведущий научный сотрудник, ТОО «Национальный центр биотехнологии», Астана, Казахстан

12.00-12.15	<p>Analysis of <i>Arabidopsis thaliana</i> DNA gyrase distribution and cleavage sites across plant genome Alexander Polkhovskiy (online) Ph.D. candidate, Skolkovo Institute of Science and Technology, Moscow, Russia</p>
12.15-12.30	<p>About the company's products - ready-made solutions for molecular biology Alina Krasnobaeva Sales Manager Biolabmix, Novosibirsk, Russia</p>
12.30-12.45	<p>Isolation of active endophytic fungi from lichens in the East Kazakhstan region Gulzhanat S. Serikbai Kazakh University of Technologies and Business, Astana, Kazakhstan</p>
12.45-13.00	<p>Screening of tomato varieties and hybrids of Kazakh selection (<i>Solanum lycopersicum</i> L.) for resistance to alternariosis Asel K. Esimseitova Research scientist, “National Center for Biotechnology” Astana, Kazakhstan</p>
13.00-13.15	<p>In vitro preservation of economically valuable species of <i>Pyrus ussuriensis</i> and <i>Pyrus regelii</i>. Damira A. Dussembekova Junior researcher, “National Center for Biotechnology” Astana, Kazakhstan</p>
13.15-13.30	<p>Potential use of livestock by-products in the food system Anel T. Kostanova Junior researcher, “National Center for Biotechnology” Astana, Kazakhstan</p>
13.30-14.30	<p>Lunch break (5th floor)</p>
14.30-15.00	<p>Conference Closing and Awards Ceremony</p>

**SECTION 3
BIOTECHNOLOGIES FOR ECOLOGY, FOOD AND PROCESSING
INDUSTRIES**

September 12, 2024

15:15 – 18:00

Conference room №A320

Moderators:	<i>Erzhan Omirkhanovich Syrgaliev, Sailau Kasenovich Abeldenov</i>
15.15-15.30	Biotechnology of cottage cheese products for sports nutrition. Klara S. Zharykbasova Vice-Rector for Educational and Methodological Work, Alikhan Bokeikhan University, Semey, Kazakhstan
15.30-15.45	Expression platform of the mycelial fungus <i>Penicillium verruculosum</i> for producing industrial and food enzyme preparations Aleksandra M. Rozhkova Senior researcher, Federal Research Center 'Fundamental Bases of Biotechnology,' Russian Academy of Sciences, Moscow, Russia.
15.45-16.00	Application of proteolytic enzymes in the food, feed, processing industries, and ecology Bekbolat B. Khassenov Head of the Laboratory of Genetics and Biochemistry of Microorganisms, “National Center for Biotechnology”, Astana, Kazakhstan
16.00-16.15	Competitive immunochromatographic analysis with reduced detection limits for monitoring toxins in food products Dmitrii V. Sotnikov Senior Researcher, A.N. Bach Institute of Biochemistry, Federal Research Center 'Fundamental Bases of Biotechnology,' Russian Academy of Sciences, Moscow, Russia
16.15-16.30	Isolation and identification of bacterial pathogens in aquaculture fish farms Zinigul S. Sarmurzina Head of the Biotechnology Laboratory, LLP 'Republican Collection of Microorganisms,' Astana, Kazakhstan
16.30-17.00	Coffee break (1st floor)
17.00-17.15	Методы оценки генетической стабильности растений земляники садовой Irina A. Kapitova (online) Head of the Reproductive Biotechnology Division, FGBOU 'Federal Scientific Center for Horticulture and Nursery,' Moscow, Russia
17.15-17.30	<i>In vitro</i> slow-growth storage of the endangered species <i>Malus niedzwetzkyana</i> for biodiversity conservation Aidana S. Nurtaza Senior researcher, “National Center for Biotechnology” Astana, Kazakhstan

17.30-17.45	Genome-wide association study of yield-related traits in a nested association mapping population grown in Kazakhstan Amalova Akerke Researcher, Institute of Plant Biology and Biotechnology, Almaty, Kazakhstan
17.45-18.00	Next-generation biopreservatives for storing chilled poultry meat based on bacteriocin from the hybrid strain <i>Lactococcus lactis</i> ssp. <i>Lactis</i> F-116. Ivan D. Filatov Junior Research Scientist, LLP 'Kazakh Scientific Research Institute of Processing and Food Industry, Almaty, Kazakhstan

**SECTION 4
BIOLOGICAL SAFETY AND BIOSECURITY**

September 13 2024

9:30 – 13:30

Conference room №A100

Moderators:	<i>Seidigappar M. Mamadaliyev, Olga V. Chervyakova</i>
9.30-9.45	The role and importance of the Central Referential Laboratory in ensuring biological safety in Kazakhstan Seidigappar M. Mamadaliyev “National Center for Biotechnology”, Almaty, Kazakhstan
9.45-10.00	Capripoxviruses for the development of vector vaccines Olga V. Chervyakova Leading Researcher, Research Institute of Biological Safety Problems, Ministry of Health of Kazakhstan, Otar, Kazakhstan
10.00-10.15	Development of research in the field of molecular virology of human and animal viruses at the National Center for Biotechnology Alexander V. Shustov Head of the Laboratory of Genetic Engineering, “National Center for Biotechnology” Astana, Kazakhstan
10.15-10.30	Tick-borne borrelioses in the southern and southeastern regions of Kazakhstan Ekaterina O. Ostapchuk Head of the Laboratory of Immunology and Immunobiotechnology, 'National Center for Biotechnology,' Almaty, Kazakhstan.
10.30-10.45	MGI sequencing technology and its applications Roman A. Yunes MGI-Tech Specialist for Sequencing and Automation Support, Moscow, Russia
10.45-11.00	Genetic diversity of pathogens of particularly dangerous infections in Kazakhstan. Alexandr B. Shevtsov Head of the Laboratory of Applied Genetics, “National Center for Biotechnology” Astana, Kazakhstan
11.00-11.30	Coffee break (1st floor)

11.30-11.45	<p>Results of serological studies during an outbreak of Newcastle disease in vaccinated laying hens Marina A. Kopochenya Veterinary Doctor, LLP Algimed, Kazakhstan</p>
11.45-12.00	<p>Study of biosafety issues in the training of specialists for biotechnology pharmaceutical production Marat K. Suleimenov Associate Professor, S.D. Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan</p>
12.00-12.15	<p>Study of the genetic diversity of coronaviruses circulating in wild and domestic bird populations in Kazakhstan Andrei V. Zhigailov Head of the Laboratory, 'National Center for Biotechnology,' Almaty, Kazakhstan.</p>
12.15-12.30	<p>Recombinant lumpy skin disease virus as a vaccine vector Aisha U. Isabek Senior researcher, Research Institute of Biological Safety Problems, Ministry of Health of Kazakhstan, Otar, Kazakhstan</p>
12.30-12.45	<p>Development of a producer strain for a recombinant chimeric protein, composed of a combination of the three most promising antigens of <i>Toxoplasma gondii</i> Kanat A. Tursunov Senior researcher, "National Center for Biotechnology" Astana, Kazakhstan</p>
12.45-13.00	<p>Assessment of the stability of a recombinant influenza virus expressing the RBD protein of the SARS-CoV-2 virus Madina R. Abayeva Junior researcher, Research Institute of Biological Safety Problems, Ministry of Health of Kazakhstan, Otar, Kazakhstan</p>
13.00-13.15	<p>Выявление и характеристика генома вируса блютанга серотипа 9 в лошадиных кровососках (<i>hippobosca equina</i>) из Южного Казахстана Karina R. Ivanova Junior researcher, 'National Center for Biotechnology,' Almaty, Kazakhstan.</p>
13.30-14-30	Lunch break (1st floor)
14.30-15.00	Conference Closing and Awards Ceremony

POSTER PRESENTATIONS
Lobby (2nd floor)

SECTION 1
BIOMEDICAL TECHNOLOGIES

P01	Study of somatic and germinal mutations in arteriovenous malformations of the brain using whole exome sequencing Ayazhan Bekbayeva National Center for Biotechnology, Astana, Kazakhstan
P02	<i>Fusobacterium nucleatum</i> in biopsied tissues from colorectal cancer of Kazakhstani patients Botakoz Kurentay, Alua Gusmaulemova National Center for Biotechnology, Astana, Kazakhstan
P03	Efficient expression vectors using autonomously replicating RNA—key to recombinant protein expression in mammalian cells with productivity comparable to production in <i>E. coli</i>. Gulzat M. Zauatbayeva National Center for Biotechnology, Astana, Kazakhstan
P04	Whole-genome sequencing of the Kazakh horse population of the Jabe type Rakhimbek Bektayev National Laboratory Astana, Kazakhstan
P05	Revitalization of critical-sized calvarial defects in rats using heparin-conjugated fibrin hydrogel with bmp-2 and adipose-derived pericytes. The role of pericytes in bone tissue regeneration and therapeutic applications Sholpan Y. Muhlis National Center for Biotechnology, Astana, Kazakhstan
P06	Spread of the Central Asian/Russian 94-32 cluster of the Beijing genotype among new tuberculosis cases in Kazakhstan Ainur Akhmetova National Laboratory Astana, Astana, Kazakhstan
P07	Exploring the role of ngs in genetic profiling for understanding non-violent sudden cardiac death in Astana Tomiris K. Shahmarova National Laboratory Astana, Astana, Kazakhstan
P08	Optimizing ultrasonic gDNA fragmentation for NGS sequencing Tomiris Kadenova National Laboratory Astana, Astana, Kazakhstan
P09	Targeted sequencing reveal two pathogenic mutations in <i>ldlr</i> and <i>apoe</i> genes in patient with family hypercholesterolemia: case report Zhanel Mirmanova National Laboratory Astana, Astana, Kazakhstan
P10	Comparative genetic analysis of cardiac ion channel genes in sudden cardiac death victims and cardiac patients using targeted next-generation sequencing Ayaulym Chamoiyeva National Laboratory Astana, Astana, Kazakhstan

P11	Transcriptome profiling and examination of individuals diagnosed with esophageal squamous cell carcinoma originating from Kazakhstan Aigul Sharip National Laboratory Astana, Astana, Kazakhstan
P12	The relationship between multi drug resistant tuberculosis and the Beijing family of <i>M.tuberculosis</i> in Kazakhstan Zhannur M. Abilova National Laboratory Astana, Astana, Kazakhstan
P13	Molecular markers for the diagnosis of malignant thyroid tumors Yuliya A. Veryaskina Institute of Molecular and Cellular Biology, Siberian Branch of the Russian Academy of Sciences, Novosibirsk, Russia.
P14	Anti-cancerous potential of polysaccharides derived from wheat cell culture Alima S. Murtazina S.D. Asfendiyarov Kazakh National Medical University, Almaty, Kazakhstan PhD candidate, Biopathology and Regenerative Medicine Institute (IBIMER), Centre for Biomedical Research, University of Granada, Spain
P15	Genomic profiling of Kazakh population through genome-wide SNP genotyping Aygerim Serikzhan National Laboratory Astana, Astana, Kazakhstan
P16	Integrative analysis of miRNA-mRNA expression profiles in esophageal squamous cell carcinoma tissues Anel Ordabayeva, Kuanysh Sarkytbayev National Laboratory Astana, Astana, Kazakhstan
P17	Multi-omics approach to studying the cellular response of <i>Bacteroides fragilis</i> to meropenem Dina S. Bayanbek Ph.D. candidate, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan
P18	Resistance determinants of Russian clinical isolates of <i>Helicobacter pylori</i> based on the results of whole-genome sequencing Darya A. Starkova St. Petersburg Research Institute of Epidemiology and Microbiology named after Pasteur, St. Petersburg, Russia
P19	Genetic Screening of Newborns for Immunodeficiencies in Kazakhstan: A Pilot Study Aiganym Toleuzhanova National Center for Biotechnology, Astana, Kazakhstan

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INNOVATIVE BIOTECHNOLOGIES FOR AGRICULTURE

P20	Biological protection and growth stimulation of cucumbers in soilless systems in the protected soil of the Aral Sea region Galina E. Dyamurshayeva Kyzylorda State University, Kazakhstan
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P21	Obtaining a strain-producer of sheep interferon-γ Kristina V. Ostriкова Belarusian State University, Minsk, Belarus
P22	Allele-specific qPCR method for SNP and indel genotyping based on FRET Ruslan Kalendar National Laboratory Astana, Astana, Kazakhstan

SECTION 3
BIOTECHNOLOGIES FOR ECOLOGY, FOOD AND PROCESSING INDUSTRIES

P23	Application of genome editing for studying and optimizing the mycelial fungus <i>Penicillium verruculosum</i> Valerii Y. Kislitsin Federal Research Center 'Fundamental Bases of Biotechnology,' Russian Academy of Sciences, Moscow, Russia.
P24	Impact of cultivation conditions on the production of fucoxanthin and polyunsaturated fatty acids Aizhan N. Karabekova Al-Farabi Kazakh National University, Almaty, Kazakhstan

SECTION 4
BIOLOGICAL SAFETY AND BIOSECURITY

P25	Selection of explants of <i>Ribes janczewskii</i> for cryopreservation Indira N. Samatova National Center for Biotechnology, Astana, Kazakhstan
P26	Nullomer extension based real-time PCR Bekbolat K. Tynysbekov National Center for Biotechnology, Astana, Kazakhstan

SYMPOSIUM
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S01	Optimization of the protocol for DNA extraction from herbarium plant material Symbat S. Islamova National Center for Biotechnology, Astana, Kazakhstan
S02	Age structure of <i>Scabiosa ochroleuca</i> and <i>Scabiosa isetensis</i> populations in central Kazakhstan. Sayagul S. Tyrzhanova Karaganda University named after Academician E.A. Buketov, Karaganda, Kazakhstan

S03	<p>Application of DNA barcoding for the identification and taxonomic analysis of the mint family (<i>Lamiaceae</i>) Nurbek B. Zhumabay National Center for Biotechnology, Astana, Kazakhstan</p>
S04	<p>Identification of plants in the <i>Fabaceae</i> family using molecular barcoding methods Balnur R. Kali National Center for Biotechnology, Astana, Kazakhstan</p>
S05	<p>DNA barcoding the <i>asteraceae</i> species from Kazakhstan Aiganym T. Zhumabek National Center for Biotechnology, Astana, Kazakhstan</p>
S06	<p>Introduction to <i>in vitro</i> culture and formation of a collection of rare and endangered plant species of Kazakhstan Sara S. Bekkuzhina National Center of Biotechnology LLP, Astana, Kazakhstan</p>
S07	<p>Microclonal propagation of <i>Acer platanoides</i> l. crimson king (<i>Acearceae</i> juss.) H.K. Juraeva, F.U. Mustafina, A.T. Hazratov, S.H. Abdinazarov Laboratory of biotechnology, Botanical Garden named after acad. F.N. Rusanov of the Institute of Botany of the Academy of Sciences</p>
S08	<p><i>In vitro</i> propagation of two medicinal plant species of <i>Ungernia bunge</i> (<i>u. Sewertzowii</i> (regel) v.fedtsch. and <i>u. Victoris</i> vved. Ex artjush.) F.U. Mustafina, H.K. Juraeva, D.N. Jamalova, A.T. Hazratov, S.H. Abdinazarov Laboratory of biotechnology, Botanical Garden named after acad. F.N. Rusanov of the Institute of Botany of the Academy of Sciences</p>