



INTERNATIONAL CONFERENCE
BIOCATALYSIS-2017:
FUNDAMENTALS & APPLICATIONS

June 25-30, 2017, Moscow Region, Russian Federation

Scientific Program

June 25, 2017, Sunday

16.00 - 17.00. Arrival and Registration of participants

17.45-19.30. Opening of the Conference

Chairpersons: Prof. Sergey Varfolomeyev and Prof. Vladimir Tishkov

Opening Ceremony Lecture 1

Sergey Varfolomeyev

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

N.M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russian Federation

TBA

Opening Ceremony Lecture 2

Alexander Gabibov

Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Russian Academy of Sciences, Moscow, Russian Federation

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Modern Pharmacology: Magic bullet & combinatorial approaches

19.45. Get Together Party

June 26, 2017, Monday

10.00. Plenary Lecture

Vladimir Tishkov

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Innovations and High Technologies MSU Ltd., Moscow, Russian Federation

Rational design of practically important enzymes

10.40. Section 1.1. General Enzymology and Biochemistry

Chairpersons: Prof. Patrick Masson and Prof. Vytas Svedas

10.40-11.00

Robert Phillips

University of Georgia, Georgia, USA

STM2360 is a novel D-amino acid decarboxylase in *Salmonella enterica* serovar typhimurium

11.00-11.20

Vladimir Muronetz

Belozersky Institute of Physicochemical Biology and Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russian Federation

Glycation of glycolytic enzymes and induction of amyloid neurodegenerative diseases

11.20-11.40

Alexander Nemukhin

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

N.M. Emanuel Institute of Biochemical Physics, Russian Academy of Sciences, Moscow, Russian Federation

Molecular mechanisms of chromophore maturation and decomposition in the green fluorescent protein.

11.40-12.00

Elena Rodina

Faculty of Chemistry and A.N. Belozersky Institute of Physico-Chemical Biology, Lomonosov Moscow State University, Moscow, Russian Federation

European Molecular Biology Laboratory, Hamburg Outstation

N-terminal domain of TERT is part of a DNA/RNA duplex boundary definition in yeast telomerase

12.00-12.30. Coffee Break

12.30. Section 1.2. Biocatalysis: catalytic mechanism and bioinformatics

Chairpersons: Prof. Robert Philips and Prof. Vladimir Muronetz

12.30-12.50

Vytas Svedas

Belozersky Institute of Physicochemical Biology and Faculty of Bioengineering and Bioinformatics, Lomonosov Moscow State University, Moscow, Russian Federation

How we do modulate functional properties of enzymes

12.50-13.10

Patrick Masson

Kazan Federal University, Neuropharmacology Lab., Kazan, Russian Federation

N.M. Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Moscow, Russian Federation

Hysteretic behavior of enzymes, from molecular mechanisms to functional significance

13.10-13.30

Galina Makhaeva

Institute of physiologically active compounds, Russian Academy of Sciences, Chernogolovka, Moscow region, Russian Federation

Polyfluoroalkyl-containing 2-arylhydrazono-3-oxoesters as selective carboxylesterase inhibitors for improving efficacy and rational use of drugs

13.30-13.50

Sofya Lushchekina

N.M. Emanuel Institute of Biochemical Physics of Russian Academy of Sciences, Moscow, Russian Federation
Kazan Federal University, Kazan, Russian Federation

Molecular modeling of cholinesterase kinetic complexities

13.50-14.05

Ekaterina Kots

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Molecular modeling approach to understand the activity control mechanisms of Human brain aspartoacylase.

14.05-14.20

Semen Baldin

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Modeling of interactions of L,D-transpeptidase 2 from Mycobacterium tuberculosis with substrate and inhibitors

14.00-15.00. Lunch

15.00. Session 2.1. Agriculture biotechnology

Chairpersons: Prof. Arkady Sinitsyn and Dr. Aleksandra Rojkova

15.00-15.20

Arkady Sinitsyn

A.N. Bach Institute of Biochemistry, Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

The creation of the enzyme preparations of new generation with improved operational characteristics for use as feed additives

15.20-15.35

Ivan Zorov

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Enzymatic activity measurement in fodders and premixes

15.35-15.50

Olga Korotkova

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Comparative analysis of commercial enzyme preparations for feed production

15.50-16.10

Aleksandra Rojkova

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Comparison of recombinant ascomycetes strains as producers of multienzyme complexes for fodder production

16.10-16.25

Larisa Shcherbakova

All-Russian Research Institute of Phytopathology, Russian Academy of Science, B.Vyazemy, Moscow region, Russian Federation

Microbial enzymes for potential use in decontamination of agricultural products polluted with aflatoxin B1 and other mycotoxins

16.25-16.40

Vitaly Nemashkalov

G.K. Skryabin Institute of Biochemistry and Physiology of Microorganisms, Russian Academy of Sciences, Pushchino, Moscow Region, Russian Federation

Characteristic features of submerged cultivation of fungi producing extracellular carbohydrases

16.40-16.55

Anna Sereda

All-Russian Research Institute of Food Biotechnology- branch of the Federal Research Center of Nutrition, Biotechnology and Safety of the food, Moscow, Russian Federation

Technologies for obtaining soybean feed additives based on extrusion and enzymatic hydrolysis

16.55-17.10

Elena Kurbatova

All-russian research Institute of food biotechnology- branch of the Federal Research Center of Nutrition, Biotechnology and Safety of the food, Moscow, Russian Federation

Biotechnological bases of plant and microbial raw materials processing with using of the controlled biocatalytic destruction of the cell wall polymers

17.10-17.40. Coffee Break

17.40. Section 1.3 Biocatalysis: catalytic mechanism and protein engineering of enzymes

Chairpersons: Prof. Alexander Gusakov

17.40-18.00

Alexander Gusakov

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Protein engineering of carbohydrases from *Penicillium* species

18.00-18.20

Anna Borisova

PNPI, St.Petersburg, Russian Federation

Sequence, structure and function correlation concepts in the GH7 cellobiohydrolases

18.20-18.40

Elena Efremenko

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Non-covalent complexes of hexahistidine-containing organophosphorus hydrolase: new properties and novel opportunities

18.40-18.55

Lyubov Filatova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Lytic enzymes of staphylococcal phages: correlation structure-enzymatic properties

18.55-19.10

Vitaly Koltover

Institute of Problems of Chemical Physics, Russian Academy of Sciences, Moscow, Russian Federation

Magnetic-isotope effects in synthesis and hydrolysis of ATP catalyzed by mitochondrial H⁺-ATP synthase/hydrolase

June 27, 2017, Tuesday

10.00-10.20.

Mikhail Viryasov

Galachem, Moscow, Russian Federation

All the best for your laboratory: new products and special prices for conference participants.

10.20. Section 1.4. Biocatalysis: catalytic mechanism and bioinformatics

Chairpersons: Prof. Vladimir Tishkov and Prof. Maria Khrenova

10.20-10.45

Maria Khrenova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Molecular mechanism of antibiotics hydrolysis by metallo- β -lactamase

10.45-11.05

Anna Bacheva

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Effect of the length and composition of oligopeptides on the kinetics of their hydrolysis by proteasome complexes

11.05-11.25

Dmitry Nilov

Belozersky Institute of Physicochemical Biology, Lomonosov Moscow State University, Moscow, Russian Federation

Identifying new inhibitors of DNA repair enzymes

11.25-11.40

Pavel Semenyuk

Lomonosov Moscow State University, Moscow, Russian Federation

Chaperone-like activity of polyanions: preventing amorphous and amyloid aggregation of proteins

11.40-11.55

Evgeny Kirilin

Belozersky Institute of Physicochemical Biology, Lomonosov Moscow State University, Moscow, Russian Federation

H5N1 Influenza neuraminidase catalytic itinerary strongly depends on oligosaccharide topology along protein surface

11.55-12.25. Coffee Break

12.25. Section 2.2. Biocatalysis and fine organic synthesis

Chairpersons: Prof. Nikolai Ereemeev

12.25-12.45

Nikolai Ereemeev

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Porcine pancreatic lipase as a catalyst in C-C-bond formation

12.45-13.05

Natalia Feoktistova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Catalase loading into porous CaCO₃ crystals: Adsorption versus co-precipitation and bioactivity retention

13.05-13.25

Irina Morozova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Penicillin acylase-catalyzed removal and transfer of protecting groups of amino compounds in peptide synthesis

13.25-13.45

Maksim Nikulin

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Stereoselective chemoenzymatic synthesis of 2,5-diketomorpholines

13.45-14.00

Anna Skuredina

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Synthesis, physico-chemical properties of 3D-imprinted complexes of moxifloxacin with sulfobutyl ether β -cyclodextrin oligomers

14.00-15.00. Lunch

15.00. Section 3.1. Analytical application of biocatalysis

Chairpersons: Prof. Aleksey Egorov and Prof. Natalya Ugarova

15.00-15.25

Aleksey Egorov

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Bacterial enzymes and antibiotic resistance

15.25-15.45

Natalia Ugarova, Daria Smirnova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Fusion proteins based on firefly luciferase and their application in biospecific assays

15.45-16.05

Anatoly Zherdev

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Development of immunochromatographic tests for food safety control with increased sensitivity and informational output.

16.05-16.25

Alexandr Urusov

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Development of immunochromatographic tests for food safety control with increased sensitivity and informational output

16.25-16.45

Maya Rubtsova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Multianalysis of genes and single nucleotide polymorphisms by microchips with horseradish peroxidase-based detection

16.45-17.00

Galina Lomakina

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Bioluminescent monitoring of the microbiological quality of freeze-dried microorganisms

17.15 – 17.40 Coffee Break

17.40. Section 3.2. Analytical application of biocatalysis

Chairperson: Prof. Arkady Karyakin

17.40-18.00

Arkady Karyakin

Department of Chemical Enzymology and Department of Analytical Chemistry, Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Biosensors based on nano-structures of electro- and biocatalysts for non-invasive diagnostics

18.00-18.15

Egor Andreyev

Department of Chemical Enzymology and Department of Analytical Chemistry, Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Electrochemical sensor based on poly(3-aminophenylboronic acid) for microorganism's detection

18.15-18.30

Elena Karpova

Department of Chemical Enzymology and Department of Analytical Chemistry, Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Stabilized Prussian blue based glucose and lactate biosensors for non-invasive medical diagnostics

18.30-18.45

Maria Komkova

Department of Chemical Enzymology and Department of Analytical Chemistry, Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Advanced self-powered (bio)sensors based on Prussian blue for wearable devices

18.45-19.00

Darya Vokhmyanina

Department of Chemical Enzymology and Department of Analytical Chemistry, Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Thin-film amperometric enzyme multibiosensor based on Prussian Blue for simultaneous determination of lactate and glucose in blood

19.00-19.15

Vita Nikitina

Department of Chemical Enzymology and Department of Analytical Chemistry, Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Hydroxy acids imprinted poly(anilineboronic acid) for selectivity improvement of the advanced affinity sensor

June 28, 2017, Wednesday

**Joint Session I
“Nanomedicine” and
4th International School NANO-2017 "Nanomaterials and
Nanotechnologies in Life Systems. Safety and Nanomedicine"**



Chairpersons: Prof. Natalia Klyachko and Prof. Elena Markvicheva

10.00-10.30 Plenary Lecture 1

Tatiana Bronich

Center for Drug Delivery and Nanomedicine, Medical Center of University of Nebraska, Omaha, Nebraska, USA
Soft nanomaterials as platform for drug delivery

10.30 -11.00 Plenary lecture 2

Elena Markvicheva

Shemyakin & Ovchinnikov Institute of Bioorganic Chemistry, Moscow Russian Federation
Tumor spheroids as 3D *in vitro* model to study anticancer drug delivery

11.00-11.30

Natalia Klyachko and Elena Batrakova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation
Center for Nanotechnology and Drug Delivery, University of North Caroline, USA

The use of natural extracellular nanovesicles for drug delivery

11.30-12.00

Valery Varlamov

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation

Chitosan and Biotechnology

12.00 – 12.30 Coffee Break

12.30-12.50

Irina Gazaryan and Sergey Kazakov

Department of Chemistry & Physical Sciences, Pace University, Pleasantville, USA

Nanobioscopic lipobead-encapsulated anticancer drugs

12.50-13.10

Elena Kudryashova

Faculty of Chemistry, M.V. Lomonosov Moscow State University, Moscow, Russian Federation

SCF technique for encapsulation of Moxifloxacin and Levofloxacin with biodegradable polymers of different nature

13.10-13.25

Roman Voeikov and Tatiana Abakumova

The Serbsky State Scientific Center for Social and Forensic Psychiatry, Moscow, Russian Federation
Faculty of Material Sciences, Lomonosov Moscow State University, Moscow, Russian Federation

VEGF – targeted micelles based on poly-lysine as potential systems for drug delivery to breast tumor

13.25-13.40

Anton Aleksashkin

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Synthesis of superoxide dismutase nanoparticles and their modification by chitosan for ophthalmic applications

13.40-14.00

Elena Zaitseva and Natalia Klyachko

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Therapeutic efficiency of recombinant superoxide dismutase 1 within polymeric nanoparticles for the treatment of inflammatory eye diseases

14.00-15.00 Lunch

Joint Session II

“Nanomedicine” and 4th International School NANO-2017 "Nanomaterials and Nanotechnologies in Life Systems: Safety and Nanomedicine"



Chairpersons: Prof. Yury Golovin and Prof. Alexander Majouga

15.00-15.30

Yury Golovin

G.R Derzhavin Tambov State University, Tambov, Russian Federation

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Magnetic field and human life

15.30-16.00

Alexander Majouga

National University of Science and Technology “MISiS”, Moscow, Russian Federation

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Novel magnetic nanomaterials for biomedical applications

16.00-16.20

Maxim Abakumov

Pirogov National Research Medical University, Moscow, Russian Federation

Protein coated magnetic nanoparticles as multifunctional platform for tumor therapy and diagnostics

16.20-16.40

Irina Le-Deygen

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Membrane microviscosity changes induced by ultrasound or magnetic field can be detected by FTIR-spectroscopy and fluorescence spectroscopy

16.40-16.55

Kseniya Vlasova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Magnetic nanocontainers providing stimulus for drug release under low frequency magnetic field

16.55-17.10

Maria Efremova and Anastasia Blokhina

*Faculty of Material Sciences, Lomonosov Moscow State University, Moscow, Russian Federation
National University of Science and Technology "MISIS", Moscow, Russian Federation*

Synthesis and investigation of dumbbell-like magnetite-gold nanoparticles for magnetic resonance imaging and drug delivery

17.05-17.35 Coffee Break

17.35-19.00 General Poster Session

June 29, 2017, Thursday

10.00-10.45. Plenary Lecture 1

Svetlana Khoronenkova

Department of Biochemistry, University of Cambridge, Cambridge, UK

Signaling of single-strand breaks in DNA

10.45-11.30. Plenary Lecture 2

Irina Gazaryan

D.Rogachev National Scientific and Practical Center for Pediatric Hematology, Oncology and Immunology, Moscow, Russian Federation,

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Innovations and High Technologies MSU Ltd, Moscow, Russian Federation.

Novel generation of luciferase fusion reporters for drug discovery: the study on substrate specificity of HIF prolyl hydroxylase

11.30-12.00. Coffee Break

12.00. Section 3.1. Medicinal enzymology

Chairpersons: Prof. Alexander Maksimenko and Dr. Olga Kost

12.00-12.20

Alexander Maksimenko

Institute of Experimental Cardiology, Russian Cardiology Research-and-Production Complex, Moscow, Russian Federation

Efficacy of protective action mechanism for antioxidant bienzyme conjugate

12.20-12.40

Andrey Poloznikov

D.Rogachev National Scientific and Practical Center for Pediatric Hematology, Oncology and Immunology, Moscow, Russian Federation,

NEH2-Luc assay: a new tool to study the efficiency of cell-permeable NRF2-derived peptides

12.40-13.00

Olga Kost

*Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation
Innovations and High Technologies MSU Ltd, Moscow, Russian Federation.*

Tissue specificity of human angiotensin I-converting enzyme

13.00-13.20

Rosa Aisina

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Thrombolytic efficacy of combined action of plasminogen activators

13.20-13.35

Marina Orlova

Faculty of Chemistry, Lomonosov Moscow State University, Moscow, Russian Federation

Zinc-containing complexes as antileukemic agents and potential chelators for radiopharmaceuticals

Parallel Session**12.00. Section 4.1. Nanoplasmonics in chemistry, biology and medicine**

Chairpersons: Prof. Ilya Kurochkin



12.00-12.20

Ilya Ryzhikov

ITAE RAS

Highly effective silver-based SERS substrates

12.20-12.40

Andrey Sarychev

ITAE RAS

SERS sensors based on metal-dielectric resonators

12.20-12.40

Irina Boginskaya

ITAE RAS

Protein markers assay using silver-based SERS substrates

12.40-13.00

Viktor Fabelinskiy

Prokhorov IGP RAS

CARS based biomarkers assay

13.00-13.20

Aleksander Dorofeenko

ITAE RAS

Multilayer SERS structures

13.20-13.40

Aleksander Merzlikin

ITAE RAS

Magnetic-photon planar optical biosensor

14.00-15.00. Lunch

15.00. Section 1.5. Biocatalysis: catalytic mechanism and protein engineering of enzymes

Chairpersons: Prof. Vladimir Tishkov and Dr. Anna Kulminskaya

15.00-15.25

Anastasia Pometun

Federal Research Centre «Fundamentals of Biotechnology» of the Russian Academy of Sciences, Moscow, Russian Federation; Chemical Faculty, M.V.Lomonosov Moscow State University, Moscow, Russian Federation; Innovations and High Technologies MSU Ltd, Moscow, Russian Federation.

New formate dehydrogenases

15.25-15.45

Nadezhda Dyrkheeva

Institute of Chemical Biology and Fundamental Medicine, Siberian Branch of Russian Academy of Science, Novosibirsk, Russian Federation

Development of the DNA repair enzyme tyrosyl-DNA-phosphodiesterase 1 inhibitors as drugs precursors

15.45-16.05

Anna Kulminskaya

NRC `KI` B.P.Konstantinov Petersburg Nuclear Physics Insititute, St.Petersburg, Russian Federation

Filamentous fungi is a promising toolbox for biotechnology

16.05-16.20

Svetlana Shvetsova

Petersburg Nuclear Physics Institute named by B.P.Konstantinov of National Research Centre "Kurchatov Institute", St.Petersburg, Russian Federation

Enzymes from plant pathogen *Fusarium proliferatum* LE1 and their application in biotechnology

16.20-16.35

Sophia Zarubina

*Chemical Faculty, M.V.Lomonosov Moscow State University, Moscow, Russian Federation
Innovations and High Technologies MSU Ltd, Moscow, Russian Federation.*

Structure-function relationship in formate dehydrogenase from thermotolerant yeast

16.35-16.50

Denis Atroshenko

*Chemical Faculty, M.V.Lomonosov Moscow State University, Moscow, Russian Federation
Innovations and High Technologies MSU Ltd, Moscow, Russian Federation.*

Mutants of D amino acid oxidase with increased resistance to hydrogen peroxide

16.50-17.10

Daria Matolygina

Chemistry Faculty, M.V. Lomonosov Moscow State University, Moscow, Russian Federation

Interleukin-2 and lysozyme as bacteriolytic agents: comparison of properties

17.10 – 17.40 Coffee Break

Parallel Session

15.00. Section 4.2. Nanoplasmonics in chemistry, biology and medicine



15.00-15.20

Nikolay Mukhurov

State scientific production association "Optics, optoelectronics and laser technology", Belarus

Nanoplasmonic devices based on porous anodized aluminum for optical and biosensor applications

15.20-15.40

Dmitriy Gorin

Saratov State University

Remotely controlled nanostructured systems for diagnosis and therapy

15.40-16.00

Alexey Yashchenok

Saratov State University

SERS substrates based on micro particles and polymeric fibers for in vitro diagnostics

16.00-16.20

Evgeniy Evtushenko

Faculty of Chemistry, Lomonosov Moscow State University

Possibilities for bacteria detection using silver nanoparticles

16.20-16.40

Natalya Nechaeva

IBCP RAS

Surface-enhanced Raman Sensors for Protein Detection

16.40-17.00

Nikolay Durmanov

IBCP RAS

SERS based methods for virus detection

17.40-18.10 Closing of Conference

Chairpersons: Prof. Sergey Varfolomeyev and Prof. Vladimir Tishkov

June 30, 2017

10.00-13.00. Departure of participants