

**Ministry of Science and Higher Education  
of the Russian Federation**

V.M. Gorbatov Federal Research Center for Food Systems of Russian  
Academy of Sciences  
(Gorbatov Research Center for Food Systems)

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# **PROGRAM**

of the 22nd International  
scientific-practical conference  
dedicated to the memory of Vasily Matveevich  
Gorbatov

**Food systems.  
Biosafety, Technology and Engineering**

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**25-26 November, 2020  
Moscow**

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The 22nd International scientific-practical conference dedicated to the memory of Vasily Matveevich Gorbatov "Food systems. Biosafety, Technology and Engineering" is held within the

framework of events timed to coincide with celebration of the 90th anniversary of V.M. Gorbatov Federal Research Center for Food Systems of Russian Academy of Sciences (formerly, VNIIMP)

## TOPIC AREAS OF THE CONFERENCE

● Innovative technologies of food raw material processing and food product manufacture. Topical questions of using physical methods in technologies of the food industry. Production of safe products of guaranteed quality. Prevention of pathogen and virus circulation in food systems. Food and human health.

● Raw material base of food industries, animal husbandry and veterinary medicine. Chemistry, biochemistry and biology of raw materials of plant and animal origin.

● Food biotechnology. Enzyme and microbial preparations and biotechnological processes in food and feed technologies.

● Quality and safety management of food raw materials and food products. Food hygiene. Omics approaches to food analysis. Authentication and adulteration of food products. Risk analysis (assessment, characterization, management, communication)

● Information technologies, simulation and management in food industries. Management of the trophological chain, marketing, economics. Study of consumer demand.

● New types of packaging, ingredients, complex additives and technologies of their applications. Functional ingredients for dietary, treatment-and-prophylactic products. Food labeling.

● Rational use of by-products (secondary products) of the food industry and ecological problems of the industry.

# INTERNATIONAL PROGRAM COMMITTEE

## CHAIR OF THE PROGRAM COMMITTEE

### **Andrey Borisovich Lisitsyn**

Scientific Director of the V.M. Gorbatov Federal Research Center for Food Systems of the Russian Academy of Sciences (RAS), academician of RAS, professor, doctor of technical sciences

## CO-CHAIR OF THE PROGRAM COMMITTEE

### **Oksana Aleksandrovna Kuznetsova**

Director of the V.M. Gorbatov Federal Research Center for Food Systems of RAS, doctor of technical sciences

## MEMBERS OF THE PROGRAM COMMITTEE

### **Aleksandr Nikolaevich Panin**

WHO/FAO expert on food toxicoinfections, academician of RAS, professor, doctor of veterinary sciences

### **Aleksandr Anatolievich Yaroslavov**

head of the Department of High Molecular Compounds, Faculty of Chemistry, Lomonosov Moscow State University, doctor of chemical sciences, professor

### **Anastasia Arturovna Semenova**

Deputy Director on Science of the V.M. Gorbatov Federal Research Center for Food Systems of RAS, doctor of technical sciences, professor

### **Igor Tomašević**

doctor (PhD), professor, Department of Animal Source Food Technology, Faculty of Agriculture - University of Belgrade, Belgrade, Republic of Serbia

### **Brankica Lakicevic**

doctor (PhD), Department of Microbiology and Molecular Biology, Institute of Meat Hygiene and Technology, Belgrade, Republic of Serbia

### **Branko Velebit**

doctor (PhD), senior research associate, Head of Department of Microbiology and Molecular Biology, Institute of Meat Hygiene and Technology, Belgrade, Republic of Serbia

### **Maria Font i Furnols**

Head of the "Product Quality" programme. Institute of Agrifood Research and Technology (IRTA), Girona, Spain

# ORGANIZATIONAL COMMITTEE

**Stanislav Alekseevich Gorbatov**

Deputy Director on Economic Relations and Marketing of the V.M. Gorbatov Federal Research Center for Food Systems of RAS, candidate of technical sciences

**CHAIR OF THE ORGANIZATIONAL COMMITTEE**

**Aleksandr Nikolaevich Zakharov**

Head of the Editorial and Publishing Unit, candidate of technical sciences, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**CO-CHAIR OF THE ORGANIZATIONAL COMMITTEE**

**Natalia Anatolievna Gorbunova**

Scientific Secretary, candidate of technical sciences, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**DEPUTY CHAIR OF THE ORGANIZATIONAL COMMITTEE**

**Anton Georgievich Belozarov**

Deputy Director on work with branches, acting director of the All-Russian Scientific Research Institute of Starch Products (VNIIC), candidate of technical sciences, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**MEMBERS OF THE ORGANIZATIONAL COMMITTEE**

**Irina Mikhailovna Chernukha**

Head of the Department of Coordination of Initiative and International Projects, academician of RAS, doctor of technical sciences, professor, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**Maksim Borisovich Rebezov**

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**Daria Sergeevna Gustova**

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**Marina Ivanovna Savelieva**

scientific editor of the Editorial and Publishing Unit, V.M. Gorbatov Federal Research Center for Food Systems of RAS

V.M. Gorbatov Federal Research Center for Food Systems of RAS

**ORGANIZER OF THE CONFERENCE**

# PROGRAM

## and time limits of the conference

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### GENERAL TIME LIMIT FOR SPEECHES

in plenary session – up to 15 minutes,  
in sectional session – up to 10 minutes

### CONFERENCE VENUE

V.M. Gorbatov Federal Research Center  
for Food Systems of RAS,  
26 Talalikhina str., Moscow  
**Open in 10:00**

To access the conference, please,  
e-mail to Julia Startseva  
at [yu.starceva@fncps.ru](mailto:yu.starceva@fncps.ru)

The Conference is held in the remote format and with limited in-person attendance adhering to the measures introduced by the regional authorities to prevent the spread of the coronavirus infection (COVID-19)

# NOVEMBER 25, WEDNESDAY

## Plenary session (Open in 10:00)

Moderator: **Oksana Aleksandrovna Kuznetsova**,  
Director of the V.M. Gorbatov Federal Research  
Center for Food Systems of RAS,  
doctor of technical sciences

### 90 YEARS IN THE SERVICE OF SCIENCE

**Oksana Aleksandrovna Kuznetsova**, Director of the V.M. Gorbatov Federal Research Center for Food Systems of RAS, doctor of technical sciences

### PRODUCTION AND CONSUMPTION OF MEAT TODAY AND IN THE LONG TERM

**Eran Raizman**, Senior animal health and production officer, FAO Regional Office for Europe and Central Asia

### FOOD SAFETY AS A BASIS OF THE OIE-FAO-WHO CONCEPT. THE ROLE OF FUNDAMENTAL RESEARCH

**Aleksandr Nikolaevich Panin**, WHO/FAO expert on food toxicoinfections, academician of RAS, professor, doctor of veterinary sciences\*

### FOOD SAFETY IN CENTRAL AND EASTERN EUROPEAN FOOD INDUSTRY - ARE WE CULTURAL ENOUGH?

**Tomašević Igor**, doctor (PhD), professor, Department of Animal Source Food Technology, Faculty of Agriculture - University of Belgrade, Belgrade, Republic of Serbia\*

### FOODBORNE VIRUSES - FOODBORNE PATHOGENS

**Branko Velebit**, doctor (PhD), senior research associate, Head of Department of Microbiology and Molecular Biology, Institute of Meat Hygiene and Technology, Belgrade, Republic of Serbia\*

### RATIONAL TECHNOLOGIES AND FOOD SAFETY

**Natalya Ivanovna Sanzharova**, Director of RIRAE, corresponding member of RAS, doctor of biological sciences, professor

### METHODOLOGY FOR DESIGNING FOOD PRODUCTS. PERSONALIZED ASPECT

**Alexander Yurievich Prosekov**, rector of KemSU, corresponding member of RAS, doctor of technical sciences, professor

### MICROENCAPSULATION OF IMMUNOGLOBULIN Y: OPTIMIZATION WITH RESPONSE SURFACE METHODOLOGY AND CONTROLLED RELEASE DURING SIMULATED GASTROINTESTINAL DIGESTION

**Jin ZHANG**, Ph.D., Assistant Professor., Institute of Food Sciences Zhejiang Academy of Agricultural Sciences

### QUALITY OF MEAT FROM IMMUNOCASTRATED PIGS

**Font i Furnols Maria**, Head of the "Product Quality" programme. Institute of Agrifood Research and Technology (IRTA), Girona, Spain.

### AN EFFECT OF IMMUNOCASTRATION ON ECONOMY OF PIG PRODUCING ENTERPRISES AND ECOLOGY

**Mikhail Vasilievich Sorokin**, candidate of biological sciences, National Veterinary Manager, Zoetis

### FISH FRESHNESS PRESERVATION BY EDIBLE ALGINATE COATING WITH DRY DISTILLED ROSE PETAL EXTRACT

**Stefan G. Dragoev**, Head of the Department "Meat and Fish Technology," University of Food Technologies (Plovdiv, Bulgaria)

\* - report of the grant participant (Grant № 075-15-2020-775, supported by the Ministry of science and higher education of the Russian Federation)

# NOVEMBER 26, THURSDAY

**Section 1:** Innovative approaches to prevention of pathogen transfer using antimicrobial materials and physical methods of action on biological objects (Open in 10:00)

Moderator: **Andrey Borisovich Lisitsyn**, Scientific Director of the V.M. Gorbatov Federal Research Center for Food Systems of RAS, academician of RAS, professor, doctor of technical sciences

The section is devoted to discussion of the research by the results of the work on the large scientific project (grant) № 075-15-2020-775, supported by the Ministry of Science and Higher Education of the Russian Federation in 2020

## WELCOME SPEECH. GOALS AND OBJECTIVES OF THE GRANT RESEARCH

**Andrei Vasilievich Zvyagin**, Head of the Laboratory of Optical Biomedical Imaging and Sensing, doctor of technical sciences, professor, Macquarie University, Sydney, Australia

## TOPICAL QUESTIONS OF BIOLOGICAL SAFETY OF FOOD PRODUCTS AND THEIR SOLUTION

**Olga Evgenievna Ivanova**, Head of the Department of Biotechnology, VGNKI, candidate of veterinary sciences

## WAYS OF ACHIEVING VETERINARY SAFETY IN THE RF WITHIN THE FRAMEWORK FOR REALIZING THE PROGRAM OF AGRICULTURAL PRODUCT EXPORT IN THE CONDITIONS OF COVID-19 PANDEMIC

**Artem Evgenievich Metlin**, Deputy Director on Science and Quality, doctor of veterinary sciences, Federal Centre for Animal Health

## BIOFILMS IN PRODUCTION FACILITIES OF A MEAT PROCESSING ENTERPRISE – COMPOSITION, STRUCTURE

**Yuri Aleksandrovich Nikolaev**, Head of the Laboratory of Viability of Microorganisms, doctor of biological sciences, S.N. Winogradsky Institute of Microbiology, Federal Research Centre “Fundamentals of Biotechnology” of RAS

## A STUDY ON BIODIVERSITY OF MICROORGANISMS IN FOOD PRODUCTION FACILITIES USING NGS-TECHNOLOGIES

**Andrey Vladimirovich Mardanov**, Head of the Laboratory of Microbial Genomics and Metagenomics, doctor of biological sciences, professor of RAS, Institute of Bioengineering, Federal Research Centre “Fundamentals of Biotechnology” of RAS

## MORPHOLOGICAL, SPECTRAL AND ANTIBACTERIAL STUDY OF FOOD PATHOGENS

**Sergey Ivanovich Kudryashov**, Head of the Laboratory of Laser Nanophysics and Biomedicine of the Lebedev Physical Institute (LPI) of RAS, doctor of physico-mathematical sciences

## BIOFILM FORMATION BY FOODBORNE PATHOGENS

**Yulia Konstantinovna Yushina**, Head of the Laboratory of Microbiology, candidate of technical sciences, V.M. Gorbatov Federal Research Center for Food Systems of RAS

## PREVENTION OF THE POTENTIAL FOR FOODBORNE TRANSMISSION OF SARS-COV-2

**Sanjay Gummalla**, Senior Vice President of Scientific Affairs, American Frozen Food Institute, Arlington, USA

## RADIATION INDUCED DEVELOPMENT OF ANTIBACTERIAL NANOCOMPOSITES IN POLYMER SOLUTIONS AND COATINGS

**Aleksey Aleksandrovich Zezin**, senior scientific worker, Laboratory of Radiation Chemistry, doctor of chemical sciences, Faculty of Chemistry, Lomonosov Moscow State University

## GENERATION AND USE OF METAL OXIDE NANOPARTICLES WITH ANTIBACTERIAL PROPERTIES

**Sergey Vladimirovich Gudkov**, Head of the Biophotonics Center, doctor of biological sciences, A.M. Prokhorov General Physics Institute (GPI) of RAS



**Section 2:** Modern fundamental research in the field of food systems

Open in 12:00

Moderator: **Anastasia Arturovna Semenova**, Deputy Director on Science of the V.M. Gorbatov Federal Research Center for Food Systems of RAS, doctor of technical sciences, professor

The section is devoted to discussion of the results of the research supported by science foundations or financed by the Ministry of Science and Higher Education of the Russian Federation within the framework of the state assignment

**CHROMATOGRAPHIC-MASS SPECTROMETRIC DETECTION OF ORGANIC IODINE IN THE FORM OF AMINO ACID RESIDUES OF IODOTYROSINES IN MEAT PRODUCTS ENRICHED WITH ESSENTIAL MICROELEMENTS (GRANT RNF 19-76-10013)**

**Andrey Vladimirovich Kulikovskiy**, Head of the Laboratory of Scientific-Methodical Work, Biological and Analytical Research, candidate of technical sciences, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**MEAT PRODUCTIVITY AND CONTENT OF CERTAIN MICROELEMENTS IN THE BODY OF FATTENING YOUNG PIGS UPON FEEDING CHELATE COMPOUNDS (THEME 0445-2019-0023)**

**Magomed Gazievich Chabaev**, chief scientific worker, doctor of agricultural sciences, professor, L.K. Ernst Federal Research Center for Animal Husbandry

**AN INCREASE IN PRODUCTIVITY OF PIGS AND MEAT QUALITY UPON FEEDING DIFFERENT FORMS OF METAL PROTEINATES (THEME 0445-2019-0023)**

**Elena Yurievna Tsis**, scientific worker, candidate of agricultural sciences, professor, L.K. Ernst Federal Research Center for Animal Husbandry

**AN INCREASE IN THE PHYSIOLOGICAL STABILITY OF FAST GROWING HYBRID PIGS TO TECHNOLOGICAL STRESS (GRANT RSF 19-16-00068)**

**Anastasia Arturovna Semenova**, Deputy Director, doctor of technical sciences, professor, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**PECULIARITIES OF THE PROTEOMIC PROFILE OF PORCINE TISSUES AFTER TARGETED OPERATIONAL ACTION (GRANT RSF 19-76-10034)**

**Lilia Vyacheslavovna Fedulova**, Head of the Experimental Clinic – Laboratory of Biologically Active Substances of Animal Origin, candidate of technical sciences, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**COMPARISON OF BIOMARKER PEPTIDES FOR IDENTIFICATION OF MUSCLE TISSUE IN FINISHED MEAT PRODUCTS USING THE METHOD OF MULTIPLE-REACTION MONITORING (MRM) (GRANT RFBR 19-316-90053)**

**Daniil Vladislavovich Khvostov**, junior scientific worker, Laboratory of Molecular Biology and Bioinformatics, V.M. Gorbatov Federal Research Center for Food Systems of RAS

**FORMATION OF MEAT QUALITY CHARACTERISTICS DURING AGEING IN THE MEDIUM OF AIR-ESSENTIAL OIL**

**Oleg Vladimirovich Shkabrov**, Dean of the Chemico-Technological Faculty, Mogilev State University of Food Technologies, candidate of technical sciences



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