

Welcome letter

Academician of the Russian Academy of Sciences Evgeny Egorov
Conference Program Committee Chair

Dear colleagues and participants!

I am pleased to welcome colleagues and participants of the International Scientific On-line Conference "Directed Transformation of Food Raw Materials in the Production of Food Products, Food and Dietary Supplements, Ensuring Quality Control and Safety", which will be held in Krasnodar, Russia, from April 14 to 15, 2022. on the basis of the North Caucasian Federal Scientific Center for Horticulture, Viticulture, Winemaking, Krasnodar.

The conference is devoted to solving the issues of creating food products, including functional, specialized and personalized, based on the study of the mechanisms and patterns of transformation of food raw materials; development of technologies for the production of food and biologically active additives; creation of methods for quality control, safety and biosafety of food raw materials, foodstuffs, food and biologically active additives.

The main goal of the Conference is the development of new scientific directions, the development and improvement of food production technologies using modern methods of biotechnology and bioinformatics based on the corporate generalization of research results and the strengthening of scientific ties with leading scientific schools.

The issues considered at the Conference are of great importance, since providing the population with food is one of the main goals of any state and an indispensable condition for national sovereignty. Proper nutrition, especially of the child population, contributes to the prevention of diseases, prolonging life, increasing the body's resistance to adverse environmental influences and reducing risk factors when the environmental situation deteriorates.

In the 21st century, research in the field of personalized dietology, human nutrimicrobiome, nutrigenetics, nutrigenomics, digital technologies for designing products and managing the nutrition of the population, taking into account individual characteristics of a person, is of particular relevance. The solution of these problems is based on the use of experience and knowledge of scientists and specialists in various fields: food chemistry, engineering, biotechnology, bioecology, genetics, computer science, medicine, etc.

Research in the field of agricultural science should be aimed at developing methods for targeted management of biochemical and technological processes of storage and processing, promising technologies for the production of food products and biologically active additives; creation of new types of raw materials, food additives, biologically active, prebiotic substances, probiotic organisms and other food ingredients.

The solution of these problems is achieved mainly through the creation of modern methods of processing agricultural raw materials to obtain food products with desired properties with the minimum possible destruction of biologically active substances, as well as methods for assessing the quality, safety and biosafety of agricultural raw materials and products of its processing, including methods for identifying genetically modified organisms.

The most significant changes in technology and technology occur under the influence of biotechnology, genetic engineering, computerization, advances in the development and use of new types of raw materials. At the same time, the issues of production of food products with a given structure and controlled functional properties based on the use of new non-traditional energy carriers, extrusion technologies, etc. are actualized. These are fundamentally new methods for converting agricultural raw materials into food products.

The work of the Conference is devoted to these issues, in which an important place is occupied by the task related to the disclosure of the mechanisms for the transformation of food raw materials under the influence of physical, chemical and biotechnological processes for further purposeful regulation of the processes of production of food products with predictable properties.

A significant role is given to the development of technologies for the production of food and biologically active additives; methods of quality control, safety and identification of food raw materials, foodstuffs, food and biologically active additives; biotechnological and physico-chemical methods used in the storage of food raw materials and food products.

The conference will provide an open platform for the exchange of information, discussion of scientific results and experience, with a special focus on supporting initiatives in the field of specialized, functional and personalized nutrition.

The North Caucasian Federal Scientific Center for Horticulture, Viticulture, Winemaking is a large scientific, methodological and breeding and technological center for horticulture, viticulture, winemaking, food and processing industries in the North Caucasus region of Russia.

I hope that this conference will give you valuable theoretical and practical knowledge, good intellectual experience, increase the importance of research work, help attract and retain talented young people in science to solve urgent problems in the field of biochemistry and biophysics of food raw materials, use bioengineering and biotechnology methods in the food industry.

Chairman, Academician of the Russian Academy of Sciences Evgeny Egorov