THE PERSPECTIVE OF DEVELOPMENT OF TECHNOLOGY OF NEW FUNCTIONAL FOOD

Varshko O. G., Ivakhnenko O. L., Trutaev I. V. Scientific supervisor: Grand PhD, Prof. Strelnikov L. S. National University of Pharmacy, Kharkiv, Ukraine varshko.ksuy@mail.ru

In the last decades biotechnologists conformities to law of forming and functioning of microbal associations attract attention all anymore. The study of conformities to law of forming of structure and functioning of associative microbal cultures has a general biological value, as idea about the mechanisms of organization of the natural stable biological systems is extended, and also is basis for development of technology of creation and practical management by valuable microbal associations, for providing of their stability and high activity. One of such morphological executed stably functioning associative cultures of microorganisms is kefir fungus. Kefir fungus is complex symbiosis of a few types of the microorganisms, presented by different bacteria and fungi, appearing as a result of the cooperative existence. They have a certain structure and behave biologically as large as life organism, which grows, divides and passes the properties and structure to the following generations. By appearance kefir fungus looks like getting soaked rice or grainy curd. It has white color with a small mother-of-pearl ebb. Living kefir fungus has a wrong form strongly plicate or scabrous surface; kefir granes are resilient, softly-gritly; the sizes of them can hesitate from a 1-2 mm a to 3-6 cm and more. Kefir fungus is the object of active researches, firstly, as producer of the widely used sour-milk products, possessing a high biological value, and also as a model of the folded, stably functioning associative structured evolutional culture, that is produces polysaccharides. Kefir fungus executes a structure-forming role, possessing immunomodulatory, antitumoral, antiinflammatory, wound healing and a antimicrobial action and can be used in medicine, in cosmetic and food industry. A basic microflora consist lactic acid bacteria, yeasts, acetic acid bacteria and aromatherapie microorganisms. Despite numerous studies of microflora and properties, nature of kefir fungus still remains unknown. Thus kefir fungus is a prime example of biological symbiosis at once a few types of microorganisms, that is a necessary component for the receipt of high-quality sucklings drinks for a functional feed. To date a few types of drinks on the basis of kefir fungi, containing vitamins, organic acids and other bioactive substances, are known. However, the assortment of them limits, therefore on the department of biotechnology work is conducted on development of composition and technology of medical and preventive food stuff on the basis of kefir fungus.