

## DEPUTY EDITOR-IN-CHIEF'S PREFACE TO ISSUE 3, 2022

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Dear readers!

We present to your attention the next issue of our journal.

It opens with an editorial from the Scientific Centre for Family Health and Human Reproduction Problems (Irkutsk). O.N. Berdina et al. present the results of a pilot study in which the authors carried out a comparative assessment of the levels of beta-amyloid 42 in the blood plasma of adolescents, depending on the presence or absence of obstructive sleep apnea (OSA) syndrome and obesity. Undoubtedly, the study of early markers of cognitive impairment and neurodegenerative diseases in OSA is an important task of modern medicine.

In the first part of the journal, articles were published within the framework of the Second All-Russian Scientific Conference "Mechanisms of adaptation of microorganisms to various environmental conditions". An interesting article on the antibiotic resistance of enterobacteria isolated from surface water bodies of different climatic zones is presented by E.A. Zatsarinnaya, N.V. Kolupaeva and L.V. Kolupaeva. N.M. Kashevarova et al. from the Institute of Ecology and Genetics of Microorganisms, Ural Branch of the Russian Academy of Sciences (Perm) in their work revealed the role of (p)ppGpp alarmone in the regulation of indole formation by *Escherichia coli* cells depending on the glucose content in the nutrient medium.

Undoubtedly, the article of the authors from Saint Petersburg (Ponomareva E.S. et al.) is of interest, in which a total of 223 768 sequences of the 16S gene rRNA of the reindeer's rumen microbiome were studied during NGS sequencing. The results of the reconstruction and prediction of the functional content of the metagenome using the PICRUSt2 bioinformatic analysis allowed the authors to identify 328 potential metabolic pathways. A very relevant work of R.K. Salyaev and N.I. Rekoslavskaya from Siberian Institute of Plant Physiology and Biochemistry SB RAS (Irkutsk), in which the authors studied the effect of the "early" proteins E2, E6 and E7 of papillomavirus of high-risk carcinogenic type HPV16 on HeLa cells that cause tumor growths in the lungs of mice. The study is promising for the development of an oral therapeutic vaccine based on a plant expression system (tomatoes) with the HPV16 E2 antigenic protein against lung cancer, cervical cancer and other types of cancer.

A number of articles are devoted to demographic issues. In the context of the pandemic, the issue of maintaining and developing health by the younger generation, which is mastering new health-saving practices, has been updated. N.L. Antonova and A.P. Maltseva from the Ural Federal University named after the first President of Russia B.N. Yeltsin (Yekaterinburg), based on survey data, conducted an analysis of the health-saving practices of young people in a large industrial city.

The actual direction now is the search for agents that increase the effectiveness of the *Yersinia pestis* EV NIEG vaccine and reduce the side pathological manifestations caused by it. Thus, a group of scientists from the Irkutsk Anti-plague Research Institute of Siberia and Far East of Rospotrebnadzor (Dubrovina V.I. et al.) in their work evaluated the effect of the organoselenium compound 974zh on the structural rearrangement of the organs of experimental animals in the dynamics of the vaccine process caused by *Y. pestis* EV.

E.N. Shchurova et al. from the National Ilizarov Medical Research Centre for Traumatology and Orthopaedics (Kurgan) carried out an analysis of temperature and pain sensitivity in patients with the consequences of trauma to the cer-

vical spinal cord. The authors found that the instrumentally registered level of temperature-pain sensitivity disorder does not correspond to the clinically determined localization of sensory disorders.

Research in oncology still does not lose its relevance. A.N. Sumin et al. from the Kuzbass Cardiology Center (Kemerovo) in their work studied changes in the indicators of diastolic function of the left ventricle during anthracycline therapy in patients with breast cancer. The authors note that in women who underwent antitumor treatment for breast cancer with the use of anthracyclines, a deterioration in diastolic function of the left ventricle was found compared to the control group. A.S. Stoyukhina and Yu.N. Yusef from the Research Institute of Eye Diseases (Moscow) in their study identified diagnostic signs of "small" choroidal metastases. For all patients with a burdened oncological history, in addition to a thorough examination of the fundus of both eyes, the authors recommend conducting an examination of the fundus in the MultiColor and short-wave autofluorescence modes, followed by OCT in the zones of changes.

A number of works are devoted to the health of children and adolescents. Based on the analysis of clinical, laboratory and molecular genetic parameters, the authors from the Chita State Medical Academy (Bochkareva L.S. et al.) identified prognostic criteria for severe acute viral bronchiolitis in children. Based on a comprehensive assessment of established risk factors, the authors developed a method to calculate the likelihood of developing severe acute viral bronchiolitis. The authors from the Institute of Developmental Physiology of the Russian Academy of Education (Moscow) (Dogadkina S.B. et al.) in their work assessed the nature of vegetative, cardiovascular and hormonal reactivity in various types of cognitive load in school-age children.

We express our gratitude to all the reviewers of the new issue and look forward to new interesting articles from the authors!

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