

OIPINION

НАЦИОНАЛЕН ЦЕНТЪР ПО ОБЩЕСТВЕНО ЗДРАВЕ И АНАЛИЗИ	
Изм. №:	20
Вх. №:	19141/11.06.20

on the competition for the academic position of "associate professor" with participation of the chief assistant VESELA IVANOVA GEORGIEVA, PhD in the field of higher education: 7. "Healthcare and sports", professional field 7.1 "Medicine", specialty "Hygiene" for the needs of the Department "Microbiological factors", Directorate "Analytical and laboratory activities", National Center of Health Protection and Analyses –Sofia, published in SG No 14, 19.02.2021

prof. Ada Ivanova Bainova, MD, PhD, DSci – external member of the Scientific Jury for National Center of Health Protection and Analyses –Sofia

Dr. Vesela Georgieva is the only candidate in the competition for the academic position of "associate professor". She received her high education in the period of 1986 – 1991 at the Sofia University "Sveti Kliment Ohridski" – Master of Biology with a narrow specialization in "Hydrobiology and Water Protection". In 2014 she successfully defended his doctoral dissertation on "BIOLOGICAL CONTAMINANTS IN THE HYGIENIC ASSESSMENT OF BOTTLED WATER" for the specialty "Hygiene" at the National Center of Health Protection and Analyses – Sofia.

After graduating from 1992 she initially worked as a biologist in NCPHA in Department "Microbiological factors". From 1998 to 2010 she become research associate, and from 2011 she is chief assistant in the same department of NCPHA. From 2014 to present she is Head of the Department of "Microbiological Factors". It is noteworthy that the entire work experience of Dr. Vesela Georgieva for nearly 20 years has passed in being in the same working place related to the field of sanitary microbiology.

The assessment of health risks for the population and drawing preventive conclusions requires knowledge of the exposure conditions, the quantitative assessment of the relationships between the extent of microbiological or hydrobiological contamination and the expected adverse effects, and knowledge of standards, classifications and legislation in national and in EU levels. Her work as Head of the Department "Microbiological factors" is associated with very good communication, proven teamwork skills, high adaptability and creativity to improve the quality of work and work atmosphere, and a developed sense of responsibility.

The candidate's professional skills include very good knowledge of English and Russian, as well as high level computer literacy.

Dr. Georgieva participates in the competition with 37 scientific articles, 33 of which are outside the Doctoral dissertation. In 17 of the scientific works she is the first author, and in 8 of them she is the only author. They have been published in renowned issues such as "Hygiene and Health Protection", "Bulgarian Journal of Public Health", "Journal of Water Resource and Protection", JECET, as well as in published issues and papers of several scientific institutes: Problems of Hygiene, Collection of Methods for Hygienic Research, Central European Journal of Public Health - Prague. Three of the articles have been published in foreign journals with an impact factor, 12 articles have been published in journals that are referenced and indexed in world-famous databases of scientific information - (SCOPUS & Web of Science). For them I have

set index A. 18 articles have been published in unrefereed journals with scientific review or in edited collective volumes. For them I have set index B.

Dr. Georgieva participated in 14 scientific congresses and conferences with reports and posters. She took part in four national projects, in three international projects, in two national programs and one program of Sofia Municipality.

Dr. Georgieva's education, qualification, overall scientific and scientific-practical activity for more than 20 years have been focused on the same scientific field that requires specific knowledge - sanitary microbiology. It is related to the protection of the health of the population from infectious and non-infectious diseases related to the microbiological pollution of the Danube River in the Silistra region before its inflow into the Black Sea (№ 1A), as well as the Iskar River (№ 1B). A hydrobiological assessment of the risk of water pollution at "Studena" dam, "Bistritsa" dam, "Pchelina" dam and "Bebresh" dam (№ 4A, № 4B) has been made, which is essential for the drinking water supply of the population in these areas. Implemented hydrobiological test methods also include the determination of cyanotoxins derived from blue-green algae (№ 2A).

Bulgaria is rich in spring and mineral waters, which are gaining more and more economic, social and health significance. With standardized methods for biological analysis and very good knowledge of the legislation, the risks associated with hygienic problems during receipt, bottling technologies and improper storage were assessed (№ 5A, 6A, 11B, 12B).

Dr. Georgieva is responsible for the implementation of complex of hydrobiological methods for monitoring the quality of water from surface standing and flowing reservoirs by studying the pollution with *Pseudomonas aeruginosa*, phytoplankton and macroinvertebrate organisms (№ 6B, 7B, 8B, 9B). Microbiological methods have been applied to determine the air pollution of the working environment during the production of antibiotics (№ 2B, 3B).

It has been proven that the sludge from the wastewater treatment plants - WWTPs create problems due to the need for significant areas for their disposal, unpleasant odors and the dangers of environmental pollution. At the same time, they are very useful in growing crops. For their stabilization and decontamination, on the basis of microbiological tests and monitoring in dynamics, the use of lime (8A, 13B, 14B, 17B) is proposed.

The knowledge and the proven possibilities for hygienic assessment of the risk of microbiological pollution of the living environment include objects such as swimming pools, sand in playgrounds and sand on the beaches along the Black Sea coast, pollution with microorganisms of the genus *Legionella* in the air of residential premises when using air conditioners.

Natural products such as Black Sea mud are valuable ingredients in cosmetic products for the face, body and hair with hydrating, mineralizing, protective and smoothing effect. Appropriately selected methods to ensure its microbiological purity have been used for its safe use (№ 9A). A scheme for microbiological tests in the assessment of health risk for children and

adults who have contact with sand from sandstones in playgrounds and beaches on the Black Sea (№ 10A) has been developed.

Dr. Georgieva's scientific contributions can be systematized as follows:

- Microbiological and hydrobiological specific methods for investigation of vital sites related to the health of the population have been introduced, standardized and validated: for groundwater, dams for water supply of the population and drinking water.

- It has been found that some microalgae and molds can get into bottled water and soft drinks from the air, soil or from contamination of equipment during bottling. Cleanliness and proper storage are essential, as they are consumed by children and people with health problems.

- Microbiological studies of objects related to the living environment, to sports and recreation were conducted: swimming pools, rivers, lakes, sand from playgrounds and beaches on the Black Sea.

- WWTP sludge from large cities have been studied in order to stabilize the sludge so that it can be used without health risk in agriculture and not to create problems with human health and the environmental pollution.

- Prior to placing on the market, the legislation on the safety of cosmetic products requires evidence of their microbiological purity. Standardized and valid methods for microbiological analysis of natural raw materials and various categories of cosmetic products have been introduced, which guarantee the absence of undesirable effects when used by consumers.

To assess the risk of the population from biological pollution, norms and classifications from the national legislation and from the countries of the European Union have been introduced and applied.

- The knowledge and experience gained in the field of sanitary microbiology have been applied in successful projects and programs of NCPHA. Every year Dr. Georgieva delivers postgraduate courses for specialists from institutions and companies with activities directly related to the protection of public health.

I accept as reliable the Information for fulfillment of the minimum national requirements in areas of higher education with the Table for individual assessment of conformity for in the field of higher education: 7. "Healthcare and sports", professional field 7.1 "Medicine".

All materials and documents for participation in the competition are collected and arranged systematically and precisely. It was a pleasure for me to read them and appreciate the contributions of Dr. Georgieva in the field of sanitary microbiology.

After getting acquainted with the scientific publications, the participations in scientific forums, and in national and international projects, training load and employment related to the management of a team of specialists, I strongly recommend the Scientific Jury to support the candidacy of Dr. VESELA IVANOVA GEORGIEVA, PhD for academic position "Associate Professor" in the field of higher education: 7. "Health and Sports", professional field 7.1 "Medicine", specialty "Hygiene" for the needs of the Department "Microbiological factors", Directorate "Analytical and laboratory activities", National Center of Health Protection and Analyses –Sofia.



.....
Prof. Ada Bainova, MD, PhD, DSci

10.06.2021