

STATEMENT

From Professor Milka Milcheva Mileva, PhD
Department of Virology, Laboratory "Biological Response Modifiers and pathogenesis of viral infections", The Stephan Angeloff Institute of Microbiology - Bulgarian Academy of Sciences

REGARDING: competition for assistant professor in professional field 4.3. Biological sciences, specialty "Plant Physiology" at the "Plant Physiology" laboratory - Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences

The present statement is prepared in agreement with the Order No. RD - 01-44/17.07.2023 of the Director of the Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences by decision of the Scientific Council of the Institute Protocol No. 7 of 12.07.2023, announced in the State gazette no. 44 of 19.05.2023.

APPLICANT(S): Chief Assistant Dr. Yuliana Georgieva Ivanova – the only candidate.

The presented set of documents agrees with the formal requirements of Chapter 1 - Minimum requirements for acquiring scientific degrees and occupying academic positions at IFRG - BAS.

I personally know the applicant, I have no joint publications with her and hence have no conflict of interest to declare, according to the applicable law.

1. SHORT BIOGRAPHICAL DATA AND CHARACTERISTICS OF SCIENTIFIC INTERESTS OF THE CANDIDATE

Dr. Ivanova graduated from higher education, master's degree in biotechnology in the discipline "Microbiological processes" in 1992 at the Faculty of Biology of Sofia University. Her professional development goes through the traditional stages of a scientific career - in the period 1994 - 2006, she worked as a biologist specialist, then as an assistant (2011-2012), and from 2012 - until now, as a chief assistant at the Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences. In 2002, she successfully defended a PhD thesis at the same institute.

The candidate's publications in the Bulgarian and foreign scientific literature reflect the research activity. Dr. Yuliana Ivanova has 50 publications during her scientific activity, for participation in which she presents a list of 19 scientific works (7 according to indicator B 4, and 12 according to D 7). The publication and activities fully meet the requirements for the growth of the academic staff.

It is also worth noting the fact that the candidate has 2 publications in Q1 positioned international journals, 4 in Q2, 8 - in Q3, 5 in Q4, which have a serious impact in the scientific literature, with a Hirsch index of 6. (<https://www.scopus.com/authid/detail.uri?authorId=6701827272>).

In the author's reference regarding the research work of Ch. Dr. Yuliana Ivanova, assistant professor, noted scientific contributions focused in the following two areas, with the wording of which I agree:

1. The biological activity of metabolites - isolated from microalgae
2. Optimizing the physiological and biochemical parameters of microalgae cultivation.

2. EVALUATION OF THE SUBMITTED SET OF DOCUMENTS

According to the submitted report on the fulfillment of the minimum requirements of the National Research Council of the Russian Federation and those of the IFRG - BAS, Dr. Ivanova

fully meets the national and specific requirements for holding the academic position "docent", as follows: under A - 50 points, C - 112 points, D – 223 points, D – 112 points, E – 120 points. The sum of the total number of points presented in the table of the candidate's reference is 617, and the required number, according to the rules of Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences, is 540.

The useful model submitted by the candidate from the Patent Office of the Republic of Bulgaria regarding the processing of bio sludge from biogas plants deserves special attention.

3. MAIN DIRECTIONS OF SCIENTIFIC RESEARCH AND THE MOST IMPORTANT RESULTS OF THE SCIENTIFIC RESEARCH ACTIVITY

Dr. Ivanova's research is in modern and relevant areas - realizing the biorefinery approach by transforming microalgal biomass into products with high added value, using green sustainable processes as a basis for moving from a linear to a circular economy.

Different biological activities of the main class of secondary metabolites of microalgae - extracellular heteropolysaccharides - were analyzed. There is relatively little data on them, but there are hopes due to the important biological activities that have been shown, including anticoagulant, anti-inflammatory, antioxidant, antitumor, antiviral, etc. A serious point in the candidate's contributions in this regard are the approaches to the combined approach for optimizing the physiological conditions of microalgae cultivation.

4. ORGANIZATIONAL AND TRAINING ACTIVITY

The good skills and organizational activity of Dr. Ivanova are evident from the leadership of the successfully conducted and realized research projects. There is no data on the guidance of doctoral students and graduates.

5. CRITICAL NOTES

I noticed some inaccuracies in the set of documents, which I – however – do not find essential.

6. CONCLUSION

The analysis of Dr. Yulia Ivanova's research activity shows that she has contributions of a significant fundamental nature and a clearly defined practical orientation.

The materials and results presented in the competition fully correspond to the specific requirements adopted in connection with the National Assembly of the Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences.

The scientific work activities exceed the requirements of the Act for the Development of the Academic Staff in the Republic of Bulgaria (ADAS), the Rules for ADAS application, as well as the specific Rules of the Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences, for obtaining the academic position "associate professor" in area 4. Natural sciences, mathematics and informatics, professional direction 4.3 Biological sciences, specialty Plant physiology for the needs of the "Experimental and Applied Algology" section of the Institute of Plant Physiology and Genetics - Bulgarian Academy of Sciences.

In view of everything stated above and my personal impressions, I believe that the candidate has an established research and scientific profile. As a member of the scientific jury for the announced competition, I give a positive assessment and strongly recommend that my colleagues vote for the awarding of the academic position "Associate professor" to chief assistant Yuliana Georgieva Ivanova, PhD.

September 11, 2023
Sofia, Bulgaria

Prepared by:
/Prof. Milka Mileva, PhD/