



**OPINION**

**regarding the competition for "associate professor" in the scientific specialty Ecology and ecosystem protection, announced in SG no. 7 of 23.01.2024  
with candidate ch. assistant Dr. Slaveya Tencheva Petrova  
from the Department of "Microbiology and Environmental Biotechnologies", Agrarian University - Plovdiv appointed according to Order No. RD 16-403/20.03.2024 of the Rector of Agrarian University - Plovdiv as a member of the scientific jury**

**by Prof. Dr. Yana Ilieva Topalova - Faculty of Biology of SU "St. Kliment Ohridski"**

**1. Brief introduction of the candidate.**

Chief assistant Dr. Slaveya Petrova has a bachelor's degree and a master's degree in environmental science. In 2012, he defended his doctoral dissertation on the topic "Passive and active phytomonitoring of atmospheric pollution in the city of Plovdiv at the Paisii Hilendarski Polytechnic." Since 2017, he has been working as a chief assistant on a second employment contract at the Agrarian University - Plovdiv. She is a socially active person and the emphasis of her activities is on the protection and preservation of the environment and the natural environment. He speaks English and a good level of French. He has administrative and expert skills, especially in the administration of scientific and environmental projects.

**2. General description of the scientific production.**

Chief Assistant Dr. Slaveya Tencheva Petrova participated in the current competition as a co-author of 22 scientific publications, referenced and indexed in the world databases with scientific information (Web of Science and Scopus), of which 3 publications are for the acquisition of the educational and scientific degree DOCTOR, of all - 4 publications – Q2; 8 publications – Q3; 10 posts – Q4.

At the time of submitting the documents for participation in the competition, a total of 141 citations (referenced and indexed in Scopus) were noticed, and 35 of them were selected for the specific participation. The candidate has an h factor of 8 (according to Scopus).

The scientific results have been presented in a total of 7 oral reports and 15 poster presentations at national and international forums.

The candidate has one textbook on "Organic Agriculture and Agrobiodiversity" and one Study Guide on Water Pollution and Conservation and Impact on Ecosystems. Both study aids were issued by PU "Paisii Hilendarski". He is the author of two study programs for study disciplines "Biosystematics, Phylogeny and Evolution" and "Environment and Health" for the EEOS specialty.

The habilitation work includes 10 publications in referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), another 22 nos. are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), are outside the habilitation thesis.

All publications are in the field of Ecology and the protection of ecosystems by general characteristic and enter into a more direct or more indirect connection with the nomenclatural specialty. Here it is necessary to emphasize that even the publications devoted to scientific issues of agrobio-agriculture have a significant ecological emphasis.

Dr. Petrova's personal involvement is also significant. In the mentioned 22 works, in 12 the candidate is in first place, in 4 in second place, in three in third place, and in the remaining works he is in the following positions. Regardless of the order of authors in the attached publications, it is difficult to infer the exact contribution of the applicant, since there are no separation protocols, but they are not required. Dr. Slaveya Petrova has no attached

independent publications, but given the complex level and complexity of modern ecological science, this is not and cannot be a sign of the quality of scientific works.

To prepare the opinion, the 10 issues included in the habilitation thesis are subject to analysis, but all the attached publications are relevant and to one degree or another are evaluated as an important part of the candidate's scientific development. Here is the place to note that the materials for the competition are very diligently prepared, arranged, easy to read and show that behind them is a highly organized person who can handle scientific data and works.

### **3. Teaching activity.**

Doctor Slaveya Petrova has a career development as a university teacher. Her experience at the PU is 18 years, where she participates in the performance of educational activities. She devoted thirteen years to the teaching activity at the PU. She worked at AU on a second employment contract for 2 and 4 hours and has 6 years of teaching experience at AU.

### **Academic employment of the candidate**

In total, for the last 5 years, Dr. Petrova had 945.6 hours of lectures and exercises at AU, an average of 189 hours per year. There are no data on graduates.

He is the co-author of one textbook, one guide and two curriculums for electives mentioned above.

### **4. Scientific research activity.**

The candidate's research contributions can be grouped and summarized as follows:

1. Research in the field of ecology of urban ecosystems (urban ecology). The possibilities of passive and active phytomonitoring in the assessment of atmospheric pollution in an urbanized environment are considered. The study was conducted in the city of Plovdiv, and in the selection of points for the implementation of biomonitoring, the following were integrated: the theory of the urban gradient, the wind rose and the presence of suitable plant species belonging to different systematic groups. The problem of pollution of urban soils and the possibilities for their sustainable management, as well as the influence of external factors on human health and reproductive abilities, are also represented.

2. Research in the field of ecology of natural ecosystems. In this section, the following problems are discussed: 1) Accumulation of heavy metals and potentially toxic elements in commercial fish species and their impact on organisms; 2) Possibilities for sustainable management of protected areas - PP Strandzha.

3. Research in the field of organic agriculture. In this area, studies related to: 1) Effect of different agricultural practices on soil biodiversity have been carried out. 2) Possibilities of using allelopathic relationships in organic farming. 3) Contamination of agricultural land with microplastics and their uptake by plants

4. Studies on sorghum cultivars. In this area, studies related to: 1) Selection of suitable donors for hybridization, carriers of genes for higher temperature tolerance and greater adaptive potential; 2) Opportunities to improve germination and growth through growth regulators.

The articles are grouped in the scientific fields "Ecology and ecosystem protection" and "Agrobiology-agriculture".

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### **Citation and referencing of scientific production.**

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Participation in scientific projects. Doctor Petrova participated in 6 national scientific and educational projects.

Doctor Petrova fully meets the national requirements for holding the academic position of "ASSOCIANT PROFESSOR". Below in the table, the individual numerical values for comparison with the national requirements are indicated.

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Group of indicators	Indicator	Брой точки
A	1. Dissertation work for awarding the educational and scientific degree "doctor"	50
B	4. Habilitation work - scientific publications in publications that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus) - publications No. 1 - No. 10	120
Г	7. Scientific publication in publications that are referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus), outside of the habilitation thesis - publications No. 11 - No. 22	200
Д	11. Citations in scientific publications, monographs, collective volumes and patents, referenced and indexed in world-famous databases with scientific information (Web of Science and Scopus)	70
E	19. Published university textbook or textbook that is used in the school network 20. Published university textbook or textbook that is used on the school network	20

### 5. Notes and recommendations.

I do not know the associate professor candidate personally. This opinion is prepared on the basis of the provided documents and their analysis. I allow myself to recommend to the future associate professor a little more focus on building a more distinguished scientific profile, participating in more projects, publishing in more diverse journals, getting involved in a more permanently formed working group or creating one, as and to be involved in the training of graduates - masters and bachelors. I hope that as a future associate professor she will have more opportunities to implement the recommendations.

### 6. Conclusion.

Based on the analysis of the pedagogical, scientific and scientific-applied activity of the candidate, I believe that Ch. assistant doctor Slaveya Petrova meets the requirements of the ŽRASRB, PPZRASRB and the Regulations of the Agrarian University for its application for the position of **Associate Professor**. My main argument is that she is an established scientist in the field of Ecology and ecosystem protection with a wide profile, has significant teaching experience, has learned valuable scientific and teaching good practices, has fulfilled the requirements - national and those of AU for the position of **Associate Professor**.

All this gives me reason to positively evaluate her overall activity. I take the liberty of proposing to the honorable Scientific Jury to also vote positively, and the Faculty Council of the Faculty of Plant Protection and Agroecology at the Agrarian University - Plovdiv to elect ch. Associate Professor Slaveya Petrova, Ph.D., as an "associate professor" in the scientific specialty Ecology and Ecosystem Protection.

7 th May, 2024  
Plovdiv

Author of the Statement  
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