

STATEMENT

regarding the competition for "Associate professor" in the scientific specialty "Plant protection", announced in SG no. 69 of 16.08.2024 with candidate Chief assistant **MARIANA KRASIMIROVA PETKOVA-ANDONOVA, PhD** by Professor Hristo Georgiev Bozukov PhD, Institute of Tobacco and Tobacco Products, Markovo village, region Plovdiv, appointed according to Order No. RD 16-1186/ 22.10.2024 of the Rector of the Agricultural University - Plovdiv as a member of the scientific jury

1. Brief introduction of the candidate.

Chief assistant Mariana Petkova-Andonova PhD was born on 11.11.1971 in Plovdiv. He completed his higher education in 1997 at the Agricultural University /AU/ - Plovdiv, majoring in Agricultural Engineering-Plant Protection and a Master's degree.

In 2002, he obtained an ESD "PhD" in molecular biology from Kobe University, Japan, on the topic: "Structure and function of novel cytochrome P450 species from higher plants"

From the beginning of April 2003 to the end of March 2006, the candidate was a chief assistant at the Department of "Protein Biochemistry" at the University of Osaka, Japan.

In the period from September 2010 to 2014 Mariana Petkova-Andonova, is Ch. assistant in the Department of "Genetics and Breeding" of AU-Plovdiv, and from 2014 until now she is the Ch. assistant in the Department of "Microbiology and Environmental Biotechnologies"

Ch. assistant Mariana Petkova-Andonova, speaks English and Russian at an excellent level, and Japanese and Italian at a basic level.

2. General description of the scientific production.

In the competition for "assistant professor" chief assistant Mariana Petkova-Andonova participated with a total output of 45 papers, grouped as follows:

- ❖ Scientific publications on the nomenclature specialty - **44 issues**, of which:
 - Publications related to the doctoral dissertation – **3 issues**, which are not subject to consideration;
 - Publications with an impact factor - **24 issues (total IF=34,824)**
 - Publications in peer-reviewed and refereed scientific journals – **10 issues**;
 - Publications in conference proceedings – **7 issues**;

For the preparation of the opinion, 41 items are subject to analysis.

The personal participation of Ch. assistant Mariana Petkova-Andonova, in the mentioned 41 works is illustrated by the fact that in 19 (46 %) - it is the first, in 9 (23 %) - it is the second, and in the remaining 13 (31 %) - it is the third and next author.

The candidate has not submitted independent publications.

- ❖ Textbooks – 0 number.
- ❖ Study guides – 0 number.

Ch. assistant Mariana Petkova-Andonova, has given reports at our scientific forums, as well as at world and European congresses and international symposia - **4 oral reports**

(two at the International Conference on Agriculture, Biological and Natural Sciences, Edirne, Turkey, 18 -20, 11. 2023; **one online report** at the 3rd International Agricultural Conference in Amsterdam, Netherlands 0t June 22-24, 2023 and **one at EUCARPIA** - International Congress on Oilseed and Protein Crops from 31.10.2023 to 5.11 2023 **Two oral reports** at the Youth Forum "SCIENCE, TECHNOLOGY, INNOVATIONS, BUSINESS" 2023 - spring 27-28 April 2023, Plovdiv and **two poster reports** - at a Scientific Conference with international participation on the occasion of the 75th anniversary of the Agricultural University Plovdiv and at the 12th Scientific Conference for students and young scientists "Ecology - way of thinking".

Mariana Petkova-Andonova participated in the co-authorship of a utility model registered in the Patent Office of the Republic of Bulgaria "Composition for the production of whole grain sourdough".

3. Teaching activity.

Academic employment of the candidate.

Ch. assistant Mariana Petkova-Andonova conducts exercises in the discipline "General Microbiology" with the students from the "Bachelor" OCS, second year full-time and part-time studies in the following specialties - RH, EOOS, SS, ZOO, OA, ATS, DG, ALPSZ; Exercises in the discipline "Ecology of Microorganisms" from OCS "Bachelor" for the second year of full-time and part-time study in the following specialties - RH, EOOS; The exercises in the discipline "Microbial preparations in fruit growing" of the Master's College; Lectures and exercises in the discipline "Molecular Biology" of the Master's College of Arts and Sciences from the Master's course "Integrated Plant Protection"; Lectures and exercises on the subject "Introduction to Agrarian Education" with the students of the "Bachelor" OCS, first year full-time and part-time studies in the following specialties - RH, EOOS

Marianna Petkova-Andonova PhD, gave exercises to students of the master's course "Plant Medicine" COBO/SPN - full-time study in English, first semester of the academic year 2021/2022.

Her teaching activity is complemented by the guidance of 8 successfully defended diplomas from bachelor's and master's courses.

Published study materials.

The candidate has not submitted any published study materials.

Developed curricula.

The candidate, Mariana Petkova, has presented a developed curriculum for the discipline "Molecular methods of analysis in plant protection" of regular education for the "Master's" degree in the Faculty of Plant Protection and Agroecology for the "Master's" degree in the academic year 2022 /2023 year

4. Scientific research activity.

Areas of publication.

The research work of Ch. Assistant Mariana Petkova, PhD, is focused on:

1. Molecular identification, biochemical characterization and in vitro study of the antimicrobial activity of beneficial microorganisms (lactic acid bacteria, yeasts, entomopathogenic fungi of the genus *Beauveria*) against phytopathogens and enemies.

2. Study the influence of the investigated beneficial microorganisms on the growth and development of plants with the aim of their application as biofertilizers in agriculture.

3. Application of next-generation sequencing to study the microbiome of various soils and composts.

Citation and referencing of scientific production.

The noted citations in the literature on the scientific publications of Mariana Petkova-Andonova are 121, of which 86 in journals with an impact factor, 33 in peer-reviewed journals without an impact factor and 2 articles are cited in doctoral theses.

Participation in scientific projects.

Mariana Petkova-Andonova, Ph.D., participates in **7 internal projects** financed by the Agricultural University, being the head of 4 of them. He participates in **3 international projects**, being the head of one of them under the INTERREG "Balkans-Mediterranean" Transnational Cooperation Program, 2014-2020. He is also a participant in **2 national scientific projects**.

The individual report submitted by the candidate for the fulfillment of the minimum national requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria /LDASRB/ for the academic position "associate professor" shows that Ch.assistant Marianna Petkova-Andonova exceeds these requirements. *The total number of points from all indicators is 547.3 with a required 400 points.*

5. Notes and recommendations.

I have no objections to the correctness of the presented materials and the candidate's work. I would recommend Marianna Petkova-Andonova to prepare independent scientific publications in the future, as well as to participate in the preparation of textbooks and teaching materials.

6. Conclusion.

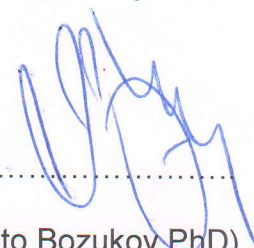
Based on the analysis of the pedagogical, scientific and scientific-applied activity of the candidate, I believe that Ch. assistant Mariana Petkova-Andonova, PhD, meets the requirements of LDASRB, RILDASRB and the Regulations of the Agrarian University for its application, by exceeding the required number of points from the minimum national requirements (547.3 points out of the required 400 points) for the academic position " 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 Agricultural University - Plovdiv **to elect Chief assistant Mariana Petkova-Andonova, PhD, as an "Associate professor"** in the scientific specialty "Plant Protection".

Date: 05.12.2024
Plovdiv

**STATEMENT
PREPARED BY:**



(Prof. Hristo Bozukov PhD)