



# ТРАКИЙСКИ УНИВЕРСИТЕТ, АГРАРЕН ФАКУЛТЕТ

## О P I N I O N

**By: Assoc. Prof. Angel Ivanov Pavlov, PhD.**

Scientific specialty: *Ecology*;

Professional field **4.3. Biological sciences**; Higher education area **4.0. Natural sciences**,  
Faculty of Veterinary Medicine (FVM), Trakia University (TrU), Stara Zagora;

**Regarding:** Competition for conferring the academic rank: **Associate Professor**  
Scientific specialty: *Microbiology*; Professional field **4.3. Biological sciences**; Higher education area  
**4.0. Natural sciences**, Faculty of Agriculture (FA), TrU, Stara Zagora

**Candidate: Chief Assistant Prof. Toncho Gospodinov Dinev, Ph.D.**

### **1. Information about the competition**

The competition was announced for the needs of the Department of Biochemistry, Microbiology and Physics at the FA, TrU, promulgated in State Gazette № 61/ 10.07.2020.

I participate as member of the scientific jury of the competition, according to Order № 2466/01.10.2020 of the Rector of TrU, Stara Zagora.

### **2. Brief information about the candidate in the competition**

Chief Assistant Prof. Dr. Toncho Gospodinov Dinev is the only candidate in the announced competition. He is a graduate of the FVM, TrU, where in 2002 he acquired a **Master's degree in Veterinary medicine**. In 2004 he was accepted as a **full-time Ph.D. student** in the Department of Pharmacology of the same faculty, where for three years he worked intensively on mastering methods for studying and applying microbiological methods in determining the pharmacokinetics of antibiotics and chemotherapeutics, antimicrobial activity, biochemical and hematological examination of blood samples, conducting scientific experiments and statistical processing of the obtained data, etc. He also taught veterinary students. He successfully defended his dissertation for **PhD. degree (2007)**. In 2009 he was elected as **Assistant** at the Department of Pharmacology of the FVM at TrU - St. Zagora, where he continues his research and teaching activities. In 2014, again after a competition, he was elected **Assistant Professor of Microbiology** in the Department of Biochemistry, Microbiology and Physics of the FA - TrU - St. Zagora, where he continues to work presently.

### **3. Fulfillment of the requirements for holding the academic position**

*3.1. Fulfillment of the requirements under Annex 8.1.*

**The candidate has fulfilled all the national minimum requirements for holding the academic position of Associate Professor in the Scientific specialty: Microbiology; Professional field 4.3. Biological sciences; Area of higher education 4.0. Natural sciences, mathematics and computer science, incl. and the requirements of the criteria regulated in Annex 8.1. from the Regulations for development of the academic staff in TrU. It not only covers, but also exceeds in points the most important evaluation indicators: B, G, D and E.**

#### **4. Evaluation of the teaching activity**

The teaching activity of the candidate is in several directions:

- **Microbiology** - in the specialties: **Ecology and Environmental Protection, Agronomy, Zooengineering, Fish Farming and Aquaculture.** Conducts exercises in all the above disciplines, and with a decision of the Faculty Board of the FA conducts lectures to full-time and part-time students on:

- **Microbiology and microbiological methods of purification** - specialty Ecology;
- **Biological control of water purification** - specialty Fish Farming and Aquaculture;
- **Microbiology of meat and meat products** - Master's program, specialty Zooengineering.

**He is the author/co-author of the curriculums** in the above mentioned disciplines. He participated in their preparation and updating; He is a co-author of the **Guidebook of Microbiology (2019)**; He has participated in conducting semester and state exams for full-time and part-time students in the above specialties. He has actively worked with students and graduates, and he is the **scientific supervisor of 9 successfully defended AF graduates (BSc. and MSc.).**

#### **5. Brief description of the presented scientific papers/publications**

In the announced competition for "Associate Professor" Dr. Toncho Gospodinov Dinev participated with a total scientific production of **34 scientific papers in the professional field**, 5 of which are related to the dissertation for the acquisition of Ph.D. degree and are **not subject to evaluation in this opinion.** The publications in specialized, refereed and indexed journals in the world famous databases (**Web of Science and Scopus**) are: **16: 8 - with impact factor (IF) and 8 - with impact rank (SJR)** with a total number of points per group of indicators (**D**) – **237 (requirement - 200 points).** **The total IF of the candidate is 9.55**, and his citation index (**h-index according to SCOPUS = 6.00**).

By group of **indicators (B)**, the candidate presents a scientific **Monograph** on the scientific specialty of the competition on the topic: "*Antimicrobial potential of probiotic lactic acid bacteria*" (**2020**), which brings him **100 points**, with which this indicator is successfully met;

The **Guidebook of Microbiology** (co-authored) (**2019**) is also presented with the scientific production, which is **over fulfilled by points and indicator (D)**;

The scientific production of the candidate is supplemented by **10 participations in scientific forums** with published posters / abstracts, 4 of which abroad. **Three of the published Posters/Abstracts are in journals with a relatively high impact factor (IF).**

The candidate has participated in the working groups of a number of **university and national research projects**, one of which he was a leader.

#### **6. Synthesized assessment of the main scientific and scientific-applied contributions of the candidate**

The candidate's research work is complex, mainly focused on two areas, which I will summarize briefly:

- Study of the pharmacokinetics and side effects of some modern antimicrobial agents (antibiotics, fluoroquinolones, etc.) in the body of different species of animals. The results have been published in foreign scientific journals with **IF** and **SJR** (papers № 6, 7, 8, 9, 10, 11, 27). The contributions of these studies are of important scientific-theoretical and scientific-practical significance.

- Antimicrobial activity of probiotic bacteria, plant species, plant extracts, foods and environmental factors. For the first time in Bulgaria, the scientific information published in the last 10 years about the antimicrobial activity of *Lactobacillus plantarum*, *Lactobacillus acidophilus*, has been collected, summarized and analyzed. The analysis of the published materials shows that these species produce a variety of metabolic products with antimicrobial activity - mainly organic acids and bacteriocins. They can be used as an alternative to antibiotics in the treatment of infections, caused by relevant susceptible microorganisms and used as effective biopreservatives in the food industry (№ 16, 29). For the first time, the fungicidal activity of ethanol and methanol extract from some plants and seaweed was studied and determined. These extracts have good prospects for use against susceptible pathogens and those causing food spoilage for the food and feed industry (№ 17, 21). The contributions of these studies are important with scientific-fundamental and scientific-applied significance.

## **7. Main critical remarks and recommendations**

1) I recommend the candidate to deepen his future training in the application of modern instrumental methods for analysis in microbiology - gas and liquid chromatography; 2) To continue its publishing activity in renowned scientific publications included in the world databases - Scopus and Web of Science.

## **7. Conclusion**

The presented overall scientific-publishing and teaching activity of the candidate is an indicator for purposeful research work with real scientific and applied contributions to the science, practice and education of the students. The results of the candidate's research have been published in leading Bulgarian and foreign indexed scientific journals and have been cited many times in the world databases - Scopus and Web of Science. The candidate meets the minimum national requirements, as well as all the requirements of the criteria regulated in Annex 8.1. from the *Regulations for development of the academic staff in TrU* for the academic position *Associate Professor* in Professional field 4.3. *Biological sciences*.

**As a member of the scientific jury, I give a positive assessment to the candidate and recommend to the respected members of the jury and the Faculty Board of the FA to award the academic position of Associate Professor to Chief Assistant Prof. Toncho Gospodinov Dinev, Ph.D. in Scientific Specialty Microbiology; Professional field 4.3. Biological Sciences for the needs of the Department of Biochemistry, Microbiology & Physics, Faculty of Agriculture, Trakia University, St. Zagora.**

**Date: 30<sup>th</sup> Oct. 2020 г.  
Stara Zagora**

**Signature:.....  
Assoc. Prof. Angel Pavlov, Ph.D.**