

OPINION

by Prof. Dr. Aneliya Veselinova Bivolarska, PhD,

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on the materials presented for participation in the competition
for the academic position of "**Professor**"
at Plovdiv University "Paisii Hilendarski"
in the field of higher education 4. Natural Sciences, Mathematics and Informatics
professional direction 4.3. Biological Sciences
(name of the scientific specialty) - Phycology

In the competition for "Professor," announced in the State Gazette, issue 98 of 19.11.2024, and on the website of Plovdiv University "Paisii Hilendarski," for the needs of the Department of "Botany and Biological Education" at the Faculty of Biology, Associate Professor Ivanka Ivanova Teneva-Dzhambazova from the same department is participating as a candidate.

1. General Presentation of the Procedure and the Candidate

Assoc. Prof. Ivanka Ivanova Teneva is a renowned Bulgarian scientist and educator with extensive experience in the fields of botany, phycology, mycology, and biotic resources. She is currently an associate professor in the Department of Botany at Plovdiv University "Paisii Hilendarski."

She graduated with a Master's degree in Biology and Chemistry in 1995 from Plovdiv University "Paisii Hilendarski." She obtained a PhD in Biology (Botany) in 2007 from the same university. She completed postdoctoral specialization at the Medical Inflammation Research Unit, Lund University (Sweden), where she worked on functional genomics and autoimmune diseases (2007).

Her scientific career includes work as a researcher at UFZ – Centre for Environmental Research, Leipzig, Germany (2001–2003), as well as a Marie Curie postdoctoral fellow at Lund University, Sweden (2005–2007). Since 2007, she has been involved in teaching at Plovdiv University "Paisii Hilendarski" – initially as an assistant, then as a senior assistant, and since 2013 as an associate professor in botany.

As a teacher, she conducts a variety of lectures and practical courses in disciplines such as phycology, mycology, biotic resources, medical toxicology, and plant systematics. She has participated in numerous scientific projects, including international ones, and possesses excellent language skills – she is fluent in German and English at an advanced level.

Assoc. Prof. Teneva has significant experience working with scientific equipment and software for bioinformatic analysis. She participates in the development and management of scientific projects and actively contributes to the scientific and educational profile of the faculty.

2. General Characterization of the Candidate's Activity

Scientometric Indicators

From the comparison made and the provided data from the candidate, it is evident that Assoc. Prof. Teneva meets the national criteria set for the academic position of "Professor." Minimum requirements by groups of indicators for the academic position of "Professor" according to the ZRASRB and PPZRASRB.

<i>Group of Indicators</i>	<i>Content</i>	<i>Professor (points)</i>	<i>Assoc. Prof. Ivanka Teneva</i>
A	Indicator 1 Dissertation for PhD	50	50
B	Indicator 3 Habilitation thesis (Publications)	100	130
G	Sum of indicators 7 and 8 Publications	200	234
D	Sum of indicators 11 Citations	50	398
E	Sum of indicators from 12 to the end	150	380,9

Assoc. Prof. Ivanka Teneva presents six scientific publications indexed in Web of Science and Scopus, which fully meet the requirements for indicator B4 for the competition for the position of Professor. Two of them were published in journals from the first quartile (Q1), and the remaining four in the second quartile (Q2), with impact factors ranging from 1.2 to 5.8. The articles reflect significant contributions in the fields of botany, toxicology, and applied ecology, with the candidate playing a leading role in interdisciplinary research teams.

The candidate presents 12 scientific publications indexed in Web of Science and Scopus, beyond the habilitation thesis, under indicator G7. Among them, four are in journals from the first quartile (Q1), one in the second quartile (Q2), two in the third quartile (Q3), and two in the fourth quartile (Q4), plus three publications in renowned international conferences. Thematically, the publications cover phytochemistry, molecular biology, toxicology, and phytoecology, with a clear contribution from the candidate in interdisciplinary research teams.

Under indicator G8, the candidate presents two published chapters in a collective monograph (a jubilee collection) published by the "Paisii Hilendarski" University Press. Both works are related to ecological and toxicological analysis of water bodies in Bulgaria and reflect the candidate's active scientific work in the fields of phytoplankton and cyanotoxins.

Assoc. Prof. Dr. Ivanka Teneva-Jambazova has an h-index of 12 according to the Scopus database. In the competition, she participates with a total of 199 citations, which bring 398 points for scientific activity, with a minimum requirement of 100 points for the competition. The data shows high scientific performance, significant influence of her research in the scientific community, and a substantial exceeding of the minimum criteria.

Scientific Activity

The candidate actively participates in the scientific community with a total of 18 participations in scientific forums, of which 11 are international and 7 are national. The

presented works are related to the toxicity and bioactivity of cyanobacteria, molecular markers, phytochemistry, phytoecology, and the impact of pollutants on aquatic organisms. The topics demonstrate an interdisciplinary approach and significant contributions of the candidate to contemporary ecological and biomedical science.

Assoc. Prof. Ivanka Teneva-Jambazova is a member of the editorial board of the *Journal of BioScience and Biotechnology* and of the reviewer board of the *Microorganisms* journal (Q2, IF 4.926). She has also served as guest editor for a special issue of *Microorganisms* dedicated to the genomics and metabolomics of cyanobacteria.

After acquiring the academic title of "Associate Professor," she has been a scientific supervisor/co-supervisor for two successfully defended doctoral students (in 2014 and 2021).

Assoc. Prof. Dr. Ivanka Teneva-Jambazova has significant project activity, including participation in six national scientific and educational projects, three as a member of the research team and three as a project leader. The projects are funded by the Operational Program "Environment," the Scientific Research Fund of the Ministry of Education and Science, and Plovdiv University "Paisii Hilendarski." The themes cover water monitoring, polyphase taxonomy, bioactive metabolites, and the development of scientific infrastructure. At the international level, she participated in two bilateral projects with Austria and Russia as a team member and was the leader of the Bulgarian team in the international MARCY project under the BS-ERA-NET program. This activity demonstrates a strong commitment to scientific research and proven ability to successfully lead and participate in competitive projects.

Scientific Contributions

The scientific contributions of Assoc. Prof. Ivanka Ivanova Teneva-Jambazova stand out for their thematic focus on taxonomy, ecology, toxicology, and the applied assessment of representatives from the Cyanobacteria division. A significant contribution is the application of polyphase taxonomy to clarify unclear or controversial taxa, as well as the phylogenetic and comparative genomic analysis of cyanobacterial strains. Some of her studies focus on determining the structure and toxic potential of phytoplankton communities in various freshwater basins in Bulgaria, with an emphasis on using modern indices for assessing ecological status. Important research also includes the biological activity and allelopathic effects of toxins produced by cyanobacteria. The candidate has contributed to the field of phytochemistry, the toxicology of higher plants, and studies related to the development of vaccines against allergens. The scientific contributions have both fundamental and applied aspects, reflecting a deep approach to the comprehensive study of biodiversity and biologically active substances.

Teaching and Educational Activity

The candidate, Assoc. Prof. Ivanka Ivanova Teneva-Jambazova, has developed an active and long-term teaching career at Plovdiv University "Paisii Hilendarski." She delivers an average of 500 teaching hours annually, including lectures, seminars, laboratory, and field exercises, in the Bachelor's degree program at the Faculty of Biology. Additionally, she teaches in the Master's degree programs, with an average annual workload of 147 hours. Furthermore, she participates in the education of students at the university's branches in the cities of Kardzhali

(75 hours per year) and Smolyan (15 hours per year). Her teaching commitment is consistently intensive and covers various levels and forms of education.

Assoc. Prof. Ivanka Ivanova Teneva-Jambazova is a co-author of four textbooks and four study aids, designed for teaching students in various specialties, including biology, ecology, pharmaceutical biotechnology, and medical biology. Among them stands out her independent textbook "Phycology" (2025), published in a revised and expanded second edition, which plays a significant role in the preparation of students in the field of algae.

3. Critical Remarks and Recommendations None.

The present opinion is also based on the Declaration of Authenticity submitted by the candidate. Based on this declaration, as well as a careful review of the submitted scientific materials, no evidence of plagiarism has been found. The scientific works demonstrate originality, independence, and proper citation of the referenced sources.

CONCLUSION

Based on the provided data and the comparison made, Assoc. Prof. Ivanka Ivanova Teneva-Jambazova demonstrates outstanding scientific and teaching achievements that fully meet the criteria for the academic position of "Professor." Her contribution to the taxonomy, ecology, and toxicology of cyanobacteria is significant, with applied innovations and interdisciplinary research. Her publications, including those in prestigious international journals, as well as the high citation level, reflect a serious influence on the scientific community. Her scientific activity is supported by participation in significant national and international projects and the supervision of successfully defended PhD students.

Her scientific output (1192.9 total points) meets and significantly exceeds the minimum requirements for the Professor position in "Phycology," as outlined in the Regulations for the conditions and procedures for academic positions at Plovdiv University "Paisii Hilendarski."

I give a positive evaluation and recommend that the esteemed academic jury votes positively for Assoc. Prof. Ivanka Ivanova Teneva-Jambazova to assume the academic position of "Professor" in the field of higher education 4. Natural Sciences, Mathematics, and Informatics, professional area 4.3. Biological Sciences, specialty "Phycology."

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Prepared by:

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