

REVIEW

by Victoria Sarafian, MD, PhD, DMSc,

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Regarding a competition for the academic position 'Associate Professor' in the field of higher education 4. Natural Sciences, Mathematics and Informatics, Professional field 4.3. Biological sciences, specialty "Morphology", Faculty of Biology, Plovdiv University „P. Hilendarski“, Bulgaria, announced in the State Gazette, N: 98 /19.11.2024

The reviewing of the materials submitted for the competition is based on the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation, as well as the Regulations for the Conditions and Procedure for Acquisition of Scientific Degrees and Holding Academic Positions at Plovdiv University „P. Hilendarski“.

1. General presentation of the procedure and the applicant(s)

The review of the materials submitted for the competition is based on the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the Regulations for its implementation, as well as the Regulations for Academic Development of Paisii Hilendarski University of Plovdiv. The opinion is prepared based on Order No. RD-22-441/18.02. 2025 of the Rector of Paisii Hilendarski University of Plovdiv.

In the competition for the academic position of "Associate Professor" in the professional field "Biological Sciences", scientific specialty "Morphology" participated one candidate – Chief Asst. Prof. Stella Georgieva Stoyanova, PhD. In 2009 she obtained her Bachelor's degree with specialty "Biology" from Paisii Hilendarski University. Since the same year she has been a visiting assistant professor at the Department of Developmental Biology, in parallel with her studies as a master's student in Anthropology. After graduating as a Master, Stella Stoyanova continued to upgrade her qualification as a PhD student in the PhD program "Ecology and Conservation of Ecosystems". In 2015 she successfully defended her dissertation on "Influence of pesticides on morphophysiological parameters in commercial fish species of the family. Cyprinidae". Since the previous year he has been a full-time assistant professor at the same department where she developed her dissertation, and since 2016 she has been a senior assistant professor. Her teaching work is in the disciplines of

Embryology, Histology, Histopathology; Human Developmental Biology to undergraduate and graduate students. Her research interests are in embryology, histopathology, environmental toxicology, biomarkers, bioindicators, organic contaminants in aquatic ecosystems.

During her academic development St. Stoyanova improved her skills and acquired new ones through additional training in Protection and Welfare of Experimental Animals Used for Scientific or Educational Purposes at the Trakia University, Stara Zagora. She has also received training in the use of artificial intelligence in education.

2. General description of the activity of the applicant(s)

Assessment of teaching activities

For the period 2019 - 2025, Chief Asst. Prof. Stoyanova has 3426 hours of teaching load for training students in undergraduate programs. For the same period she also teaches undergraduate students in the Reproductive Biology and Biodiagnostics programs. Chief Asst. Prof. Stoyanova is a co-supervisor of 9 and advisor of one graduate student. In co-authorship with prof. E. Georgieva, she participated in two manuals for the needs of the training of students of the Faculty of Biology - in histology and in histology and pathology, which are valuable theoretical and practical aids combined with self-study tests.

Evaluation of scientific and applied activities

Chief Asst. Prof. Stella Stoyanova participated in the competition with 33 publications in refereed scientific journals, other than those related to the dissertation and the academic position "Chief Assistant Professor". In 6 of them she is the first author. 26 publications are with impact factor and the rest are with SJR. Results of the team's research work have been presented at 37 scientific forums, 6 of them abroad. The papers have been published in reputed journals as follows : Q1 journals - 2 papers, Q2 - 4 papers, Q3 - 8 papers and the rest in Q4. All publications are in English, with more than 3 co-authors, which is a proof of the interdisciplinary nature of Stella Stoyanova's works and of her capacity for effective teamwork.

The project activity of the candidate is impressive. Out of the 10 projects presented with her participation, 3 were funded by the Ministry of Education and Science and one by the National Development and Sustainability Plan. These achievements are a serious testimonial to the qualities of Stella Stoyanova as a researcher who can plan and implement scientific ideas successfully.

Contributions (scientific, scientific-applied, applied) and citations

Scientific contributions are related to different aspects of pollution of aquatic ecosystems, based on original own studies. The candidate's publications demonstrate the use of freshwater fish species and freshwater and marine mussel species as reliable bioindicators for the assessment of aquatic ecosystem pollution.

Studies on the negative effects of pesticides on hydrobionts under short-term and long-term exposure are of significant ecological and health importance. Of equal applied value are studies on the effects of heavy elements such as lead (Pb) and its interactions with other heavy metals such as cadmium (Cd), nickel (Ni) and zinc (Zn). St. Stoyanova demonstrated for the first time the influence of trace elements and organic priority substances on transplants with moss and mussels for water quality studies in standing ponds. The scientific contributions related to pollution of aquatic ecosystems are the personal work of the candidate and the team she has been working with for years. They reflect most fully her qualities as a thorough researcher who systematically expands and builds on the topics she studies. At the same time, she is also involved as an expert morphologist in the work of other teams investigating the impact of dietary supplements in male infertility and the effect of ghrelin in metabolic syndrome.

As a senior researcher, she has also been involved in the development of a new research project in the field of ghrelin. 534 citations in Scopus are a respectable testimonial for the quality and significance of the candidate's scientific results. Noteworthy is the article in *Applied Ecology and Environmental Research*, 2016, which has been cited 77 times, while the other papers have been cited on average between 10-20 times.

The analysis of the scientific data of the head. St. Stoyanova against the minimum national requirements shows the following:

Indicators	Minimal requirements	St. Stoyanova
A	50	50
B	100	146
Г	200	332
Д	50	544
E	-	70
Total	400	1142

It is evident that the applicant exceeds the minimum criteria for all indicators. She also fully complies with the additional requirements of P. Hilendarski University, including those for administrative experience.

3. Assessment of the personal contribution of the candidate

I have no personal knowledge of St. Stoyanova, which is a prerequisite for a fully objective expert evaluation. The personal contribution of the candidate is obvious, and I have no doubts about the accuracy of the research, knowing her supervisors and the team in which she works. The high h-index and numerous citations in international scientific periodicals are evidence of the significance of the results obtained.

CONCLUSION

The documents and materials, presented by Chief Asst. Prof. Stella Stoyanova, meet all the requirements of the Law for the Development of Academic Staff in the Republic of Bulgaria, the Regulations for the Implementation of the LADRB and the relevant Regulations of P. Hilendarski University.

The candidate has submitted enough scientific works published after the materials used for the defence of the PhD and for the academic position of Chief Assistant Professor. Her works contain original scientific and applied contributions that have received international recognition, all of which have been published in journals and scientific collections published by international academic publishers. Her theoretical developments have practical applicability, some of them being directly oriented to teaching work. The scientific and teaching qualification of Chief Asst. Prof. Stella Georgieva Stoyanova is undoubted. Her achievements in teaching and scientific research activities fully comply with the minimum national and additional requirements of the Faculty of Biology.

After getting acquainted with the materials and scientific works presented in the competition, analysis of their significance and scientific, scientific-applied and applied contributions contained in them, I give my positive assessment and recommend the Scientific Jury to prepare a report-proposal to the Faculty Council of the Faculty of Biology for the election of the Chief Asst. Prof. Stella Georgieva Stoyanova to the academic position of Associate Professor at the University of Plovdiv "Paisii Hilendarski" in the field of higher education Natural Sciences, Mathematics and Informatics, professional field - Biological Sciences (Morphology).

March 25th, 2025

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