

R E V I E W

by Prof. Dr. Angel Petrov Vodenicharov, DSc (DVMSc) – Department of Preclinical Sciences, Faculty of Veterinary Medicine, Medical University, Pleven

Regarding: Procedure for a competition to fill the academic position of "Professor" in the professional field 6.4. Veterinary Medicine, scientific specialty "Parasitology and Invasive Diseases of Animals and Humans", announced in the State Gazette, no. 81/03.10.2025, for the needs of the "Experimental Parasitology" section.

Candidate: Assoc. Prof. Dr. Mariana Stancheva Panayotova-Pencheva, DVM

Brief Biographical Note and Analysis of the Career Profile

Associate Professor Dr. Mariana Panayotova-Pencheva, DVM, the sole candidate in the announced competition, was born on May 13, 1971, in Dobrich. She completed her secondary education at the Unified Secondary Polytechnic School (ESPU) "Ivan P. Ormanov" in Strazhitsa, Veliko Tarnovo region, in 1989. She learned her higher education degree in veterinary medicine with excellent results (5.72 from full course and 6.00 from the state exams) in 1995 at the Faculty of Veterinary Medicine (FVM) of the Higher Institute of Zootechnics and Veterinary Medicine (HIZVM) – which since 1995 is part of Trakia University in Stara Zagora.

Her career development after completing the higher education has been entirely related to veterinary parasitology within the Bulgarian Academy of Sciences – initially at the Institute of Experimental Pathology and Parasitology (section "Fauna and Circulation of Parasites", later incorporated in 2007 into the Institute of Experimental Morphology. Pathology and Anthropology with a museum – BAS, as the section "Parasitology". At the first institute, she worked for a very short time (less than two months) as a specialist – veterinary doctor, and then she was consecutively elected as Research Associate III and II grade, in 1995 and 2003, respectively. From March 29th, 2007, to April 9th, 2014, she served as Senior Assistant, and then held the academic position of 'Associate Professor' in the "Experimental Parasitology" section at the second aforementioned institute. In 2009, Dr. Panayotova-Pencheva defended a dissertation entitled "Etiological, epizootological, and pathomorphological studies on protostrongylid infections in domestic and wild ruminants in Bulgaria" at the Scientific

Council on “Infectious and Parasitic Diseases in Animals and Food Safety from Them”, after which the Higher Attestation Commission awarded her the educational and scientific degree of “Doctor” in the scientific speciality 04.03.07. “Parasitology and Invasive Diseases of Animals and Humans.”

The candidate has been a permanent member of the Scientific Council of IEMPAM since 2015. She has participated as a member in four organizational and program committees of scientific forums, is a member of two editorial boards and councils of scientific publications, and serves on the Management Board of the Bulgarian Parasitological Society.

She has been a guest editor of a special issue of the prestigious scientific journal *Journal of Zoological and Botanical Gardens* (IF 1.4), on the topic “The Long-Standing Problem of Parasitic Diseases in Zoo Animals: Current Challenges and Searching for Solutions,” as well as editor of a reprinted edition of the publication.

Evaluation of the candidate’s scientific output and research activity

The candidate in this competition has presented 54 articles published following her habilitation as an associate professor in foreign and Bulgarian scientific journals, and a habilitation work (11 scientific publications in journals that are refereed and indexed in internationally renowned scientific databases – Web of Science and Scopus). Almost all publications are with SJR, 6 of them have IF, and 9 have quartiles from Q1 to Q4.

It is important to note that the number of publications listed in the competition represents just over half (50.9%) of the total number of publications (106) in the candidate's entire professional scientific career. The published articles in journals with IF or SJR are 32, and those in journals with quartiles – 32, of which are respectively: Q1 – 6, Q2 – 10, Q3 – 8, and Q4 – 8. Both the number of single-author articles – 18 (33.3%) – and the number of joint publications in which Associate Professor Dr. Mariana Panayotova-Pencheva is the lead author – 30 (55.5%), or a total of almost 90% (88.8%), are very high. Being the first author in collective publications, according to well-known criteria, indicates that the author has made a significant contribution to the given article. The total IF is 22.328, and the individual IF is 9.729, while the total IF from publications in this competition is 11.855, and the individual IF is 3.218. The candidate's research results have found broad reflection in the scientific literature. In this competition, 308 citations are reported, of which 168 are in scientific publications, refereed Indexed in Web of Science/Scopus with IF/SJR, and 56 in dissertations and scientific theses abroad. Scientific contributions, according to the candidate's assessment, are categorized into two groups:

Fundamental - related to the study of the parasite fauna of various animal species, the morphology, taxonomy, and development of parasites, as well as the epidemiological, pathogenetic, and pathomorphological characteristics of nosological units of parasitic nature, and

Scientific-applied - concern the possibility of using the generated morphometric data in parasitological diagnostics, as well as in therapy and prevention of parasitic diseases in wild and exotic animals, alongside studies related to bee pathology and the role of bees and their products as bioindicators for environmental pollution.

The scientific contributions are systematically presented in five directions, namely: Etiology and distribution of parasitic diseases, with four sections – the species composition and distribution of parasites in domestic and wild animals in Bulgaria and abroad; morphology and taxonomy of parasites; and the biological characteristics of the agents causing parasitic diseases.

Epidemiology of parasitoses

Immunity, pathogenesis, and pathomorphology of parasitoses

Control of parasitoses

Bee pathology and bee products

Comprehensive reports on research achievements have been made in all areas, reflected in individual publications, with texts highlighting original contributions. In addition to the larvae and disease-causing agents in domestic and wild animals described for the first time in the scientific literature, interesting data related to the taxonomy, morphometry, molecular, phylogenetic, and other important characteristics of various parasites in our country and abroad are presented. Important are the contributions concerning the epidemiology of parasitoses, as they provide data on distribution, seasonal and age-related dynamics, and the significance of different representatives of the fauna in the spread of parasitoses in animals and birds, including vector-borne bacterial and parasitic infections.

Special attention is deserved by the original data on the genome of gastric nematodes. It concerns specimens of the species *Graphidioides affinis*, found in Patagonian maras, bred in the Sofia Zoo. Valuable are also the data on the species composition, distribution, and hosts of parasites outside our country, which enrich the information on the presence of certain species in distant countries, with a comparison made to similar species in Bulgaria.

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From the conducted review and analysis of the aforementioned areas, it can be concluded that the scientific work of Assoc. Prof. Panayotova-Pencheva covers a wide range of scientific interests on current issues, the data from which are of significant importance not only for veterinary parasitology but also for parasitology in general. This presents her as a thorough and experienced researcher who demonstrates impressive professionalism in various scientific fields of parasitology.

Overall, I accept the report on the mentioned contributions.

In her overall research activity, Assoc. Prof. Panayotova-Pencheva has applied both classical methods routinely used in parasitology, as well as more modern ones such as computer morphometry, PCR analyses, and molecular phylogenetics.

In addition to engaging in serious scientific research and expert activities, Assoc. Prof. Panayotova-Pencheva is also a science popularizer – she is the sole author of 12 popular science articles, 10 of which were published in the newspaper "Lechitel" (1996 – 1998) and 2 in the magazine "Nature" (2025).

The candidate is also active in project work. She has participated in 8 national and 4 international projects and has led 2 national and 3 international projects.

Analysis and evaluation of teaching and methodological activities

Alongside her significant engagement in various activities at and outside the Institute, Assoc. Prof. Dr. Mariana Panayotova-Pencheva has served as a part-time lecturer (assistant, senior assistant, and associate professor) at the Department of "Infectious Pathology, Food Technology, and Control of Foods of Animal Origin" at the Faculty of Veterinary Medicine, LTU – Sofia, teaching the subjects: Parasitology from 1998 to 2015 and Wildlife Diseases from 2011 to 2015.

She was the supervisor of regular doctoral student Vasilena I. Dakova (defended in 2020, on the topic "Studies on Parasitology" and in wild animals in Bulgaria," specializing in "Parasitology and Invasive Diseases of Animals and Humans").

In addition, she has participated in the preparation of 3 reports – self-assessments for program accreditation of the educational and scientific degree "Doctor" for the doctoral program "Parasitology and Invasive Diseases of Animals and Humans" at IEMPAM-BAS, upon the request of NAOA - 2014, 2019, 2024.

Expert activity

In this area, she has participated in 12 scientific juries for procedures related to scientific

degrees and academic positions, and has prepared: 6 opinions in competitions for the PhD degree, 1 opinion for holding the academic position of "Senior Assistant," 3 opinions in competitions for Associate Professor, 1 opinion in a competition for Professor, and 1 review in a competition for Professor.

In addition, a significant number (48) of reviews of scientific articles and projects have been made.

Overall assessment of the candidate's compliance with the mandatory requirements and conditions, and the mandatory quantitative criteria and scientometric indicators.

From the attached report – self-assessment of meeting the minimum national standards, it can be concluded that the materials and scientific output presented by Assoc. Prof. Dr. Mariana Panayotova-Pencheva, DVM, meet the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), and the Regulations on the Conditions and Procedure for Obtaining Academic Degrees and Holding Academic Positions at IEMPAM-BAS. The candidate meets the minimum national requirements under Art. 2b, paragraphs 2 and 3 of the LDASRB, as well as the additional requirements according to the stated Institute Regulations, exceeding all of them.

Personal impressions of the candidate

Even during her studies at the Faculty of Veterinary Medicine in Stara Zagora, Mariana Panayotova stood out for her modest behavior, impressively good manners, and above all, exceptional diligence and success in acquiring knowledge and passing almost all exams, including the state ones, with excellent results. Later, as colleagues and members of the Scientific Council of the Institute (I myself was a member until the end of 2021), my positive impressions of her active participation and principled attitude were reinforced and enriched.

C O N C L U S I O N

Taking into account the points presented in the review of the materials and scientific works submitted for the competition, the analysis of their significance and the contributions contained therein, as well as my personal impressions, I give a positive evaluation of the overall production and activity of the candidate. This gives me grounds to recommend that the Scientific Jury vote positively and prepare a report-proposal to the Scientific Council of the Institute of Experimental Morphology, Pathology, and Anthropology with Museum at the

Bulgarian Academy of Sciences for the election of Assoc. Prof. Dr. Mariana Stancheva Panayotova-Pencheva, DVM, to the academic position of "Professor" in the field of higher education 6.0. Agricultural Sciences and Veterinary Medicine, professional field 6.4. Veterinary Medicine, and scientific speciality "Parasitology and Invasive Diseases of Animals and Humans" for the needs of the "Experimental Parasitology" section.

February 10th, 2026

Stara Zagora

Reviewer:

/Prof. Dr Angel Vodenicharov, DSc/

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