

REVIEW

On the materials for participation in competition for academic degree "Professor" in the scientific field of higher education 4. Natural Sciences, Mathematics and Informatics, Professional field 6.4. Veterinary Medicine, specialty "Parasitology and Invasive Diseases of Animals and Humans", announced for the needs of the "Experimental Parasitology" section at IEMPAM-BAS (SG, issue 81/03.10.2025)

Candidate for participation in the competition is:

1. Assoc. Prof. DVM Mariana Stancheva Panayotova-Pencheva, PhD

Reviewer: Prof. DVM Emil Ivanov Sapundzhiev, PhD, DSc, under professional field 6.4. Veterinary Medicine, by the University of Forestry, according to an Order of the Director of IEMPAM No. NO-05-05-12/21.10.2025 on the composition of the Scientific Jury and Protocol of its first meeting/17.12.2025.

1. Brief biographical data about the candidate:

Assoc. Prof. Mariana Stancheva Panayotova-Pencheva is born in the city of Dobrich and graduated with honors from the Veterinary University in Stara Zagora, where she holds a Master Degree of Veterinary Medicine with diploma, No. 6483/1995. She started working at IEMPAM-BAS, where she still works, and for these little more than 30 years, she has gone through the entire hierarchy of her scientific development from a specialist, through the ranks of researcher III-I degree, and in 2014 she was habilitated as an associate professor. In 2009, she defended her ONS "Doctor" defends in the Higher Attestation Commission in the scientific specialty 04.03.07. "Parasitology and Invasive Diseases of Animals and Humans" on the topic: "Etiological, epizootological and pathomorphological studies on protostrongylidoses in domestic and wild ruminants in Bulgaria".

She has been a member of the Scientific Council of IEMPAM-BAS for 10 years, since 2015. She has participated in 4 representative scientific forums of organizational and program committees. She is a member of the editorial boards and councils of 2 scientific publications, as well as the Management Board of the Bulgarian Parasitological Society.

2. Compliance of applicant's materials and documents to the requirements:

When checking the documents submitted for the competition, the Scientific Jury established full compliance with the required documents, according to the Regulations for the Development of the Academic Staff at the Bulgarian Academy of Sciences. The materials are presented on paper and electronic media. It is striking that they are precisely compiled, according to the established order for IEMPAM and arranged in accordance with the legal MSRs, and based on these findings, the jury admits it for evaluation in the competition.

3. Assessment of the teaching activity of the applicant:

Dr. Mariana Panayotova was a part-time lecturer at the Department of Infectious Pathology, Technology and Control of Food of Animal Origin of the Faculty of Veterinary Medicine at the University of Forestry - Sofia in two of the main clinical subjects: "Parasitology" - from 1998 to 2015, and "Game Diseases" - from 2011 to 2015. She was the scientific supervisor of a full-time doctoral student Vasilena I. Dakova (defended her PhD degree in 2020, on the topic "Studies of Parasitoses in Wild Animals in Bulgaria", in the specialty "Parasitology and Invasive Diseases of Animals and Humans").

She participated in the preparation of 3 reports - self-assessment for program accreditation of the educational and scientific degree "Doctor" in the doctoral program "Parasitology and Invasive Diseases of Animals and Humans" at IEMPAM-BAS at the request of the National Agency of Evaluation and Accreditation - 2014, 2019, 2024.

4. Evaluation of the research, researched & applied and publishing activity of the candidate:

4.1. Participation in scientific, applied science and educational projects:

Assoc. Prof. Panayotova participated in the competition, having been a member of 8 national and 4 international scientific projects, of which she led 2 national and 3 international ones. All the projects show the purposeful work and the need for her competence in the research of various parasitosis and invasions of animals and also in bees, which is a professional certification for the realization of the acquired experience in the scientific field of parasitic diseases of animals and humans.

4.2. Characteristics of the published scientific results:

The total number of publications of Assoc. Prof. Panayotova is 106, of which 10 are in connection with the dissertation for the acquisition of the ONS "Doctor", 30 are in the habilitation for "Associate Professor", 54 are for participation in the competition for "Professor", and there are 12 popular science articles. Moreover, 32 are in publications with IF or SJR, of which 6 are in Q1, 10 in Q2, 8 in Q3 and 8 in Q4. In 18 articles she is an independent author, and 30 articles are collective, in which the candidate is the lead author.

The scientific publications in the competition package can be grouped into five main areas and the scientific contributions related to them.

1. Etiology and distribution of parasitosis:

As work has been done on the species composition and distribution of parasites in domestic and wild animals in Bulgaria. Also on the species composition, distribution and hosts of parasites outside our country. The general morphology

and taxonomy of parasites, and the biological features of the causative agents of parasitosis.

2. Epidemiology of Parasites:

Studies related to pulmonary nematodes, protostrongylids, trichinella, ixodid ticks, intestinal protist infections in camels.

3. Immunity, pathogenesis and pathomorphology of parasitosis:

The immune reactivity of rats to trichinella was experimentally studied, as well as the qualitative composition of beef parasitized with trematodes, macro- and microscopic changes in the lungs of domestic and wild ruminants invaded by pulmonary nematodes.

4. Parasitosis control:

Alternative methods for parasite control have been studied, a review of the antiparasitic treatment of wild mammals has been conducted, and some wild animals have been treated against nematodes.

5. Bee pathology and bee products

Honeybee products and their applicability as alternative remedies were studied, as well as bee health and parasite status and the condition of bee colonies in the diseases varroaosis, nosematosis, American foulbrood and European foulbrood.

4.3. Reflection of the candidate's scientific activity in the literature (citations):

The competition documents present the citations of scientific works with the participation of Assoc. Prof. M. Panayotova found in world databases according to scientometric parameters. They are for a total of 51 scientific publications - 308 numbers, as according to the indexing by data from Scopus and Web of Science, 168 citations were registered, and the rest are from other databases. These data speak of purposeful research work, which has publication realization and recognition in the scientific community. I accept the report as reliable, and the data for most of them were checked randomly, and therefore I believe that they carry a real scientometric point asset.

4.4. Contributions in the works of the candidate (scientific, scientific & applied, applied):

The scientific contributions of the individual publications are diverse, but synthesized they are focused on the field of general parasitology. They are based on both classical parasitological studies and specialized molecular and paraclinical methods - computer morphometry, PCR analyses, molecular phylogenetics, which are used in the diagnostics of the animals included in the studies, with the aim of clarifying the etiology, pathogenesis and morphogenesis of some parasitic diseases that are known, but problematic for the country.

Most of the scientific contributions in the individual areas of scientific publications are of an original nature, which I accept and share in essence and

only due to the limited opportunity for coverage in this review do I not describe in more detail.

Original studies are related to the pulmonary helminth fauna of the chamois, neostromylidae in wild ruminants in our country, protostrongylidae in wild hares in Southeast Europe, new species of cestodes and nematodes in squirrels in Bulgaria, heartworm infestation in 19 regions of the country, telaziosis in a cat, gastric nematodes in exotic rodents in a zoo - Patagonian martens, new genera and species from the parasitic fauna of Bulgaria. New hosts of the eye nematode telazia in wild predators in the Russian Far East are reported, as well as new hosts for protostrongylidae in ibex in the Alps, a description of first-stage protostrongylidae larvae in the lungs and a methodology for their fixation and study. Similar first-stage larvae have also been registered in deer brains in Southeast Europe. A taxonomic solution for the ciliated prokaryote Buxtonella in camels is proposed. Five new intermediate mollusc hosts for the pulmonary protostrongylids in the studied animals are identified, as well as a method for quantitative larval diagnostics.

No less significant contributions of a confirmatory nature are outlined, which are in the specific scientific research directions of the scientific studies and the accompanying scientific publications and are also adequately reflected. They are mainly based on studies of the parasitosis dilofilariasis, some pulmonary helminths, miracidia and cercariae of trematodes of the genus *Philophthalmus*, established general and specific taxonomic, biological, epidemiological, immunological and pathomorphological characteristics of parasitic agents and the parasitic invasions themselves.

I attribute the identified technical error regarding the number of areas of scientific contributions presented in the reference to the unnecessary desire for a more diverse interpretation of the data.

5. Assessment of the personal contribution of the candidate:

Assoc. Prof. Mariana Panayotova is a sought-after specialist and consultant on a national scale, as an expert in one of the rare clinical specialties - parasitology. She has been a member of 12 scientific juries in procedures for scientific degrees and academic positions, where she has prepared 6 opinions in competitions for the ONS "Doctor", 1 opinion for the academic position "Chief Assistant", 3 opinions in competitions for "Associate professor", 1 review in a competition for "Professor" and 1 opinion in a competition for "Professor".

In total, she has prepared 48 reviews of scientific articles and projects according to the attached list. She is also a guest editor of the special issue of the Journal of Zoological and Botanical Gardens on the topic: "The Long-Standing Problem of Parasitic Diseases in Zoo Animals: Current Challenges and Searching for Solutions" and editor of a book-reprint of the issue.

Table 1. Scoring of indicators.

Group of indicators	Contents	Professor	Candidate for the competition - Assoc. Prof. Mariana Panayotova
A	Indicator 1	50	50
Б	Indicator 2	-	-
B	Indicators 3 or 4	100	208
Г	Sum of indicators 5 to 12	200	264.5
Д	Sum of indicators 13 to 15	100	2520
E	Sum of indicators from 16 to the end	100	155
	total amount	550 /minimum/	3197.5

The assessment of the fulfilled scientometric indicators and the corresponding scoring on them is a reason to report a high overall overfulfillment of the minimum national requirements. From them, the data on publication activity and citation are particularly clearly outlined, and together with the various indicators from point E, an almost six-level overfulfillment is collected. I have verified the reliability of the data filled in the table and accept them as a real report of the MNR of scientometric data of Assoc. Prof. Mariana Panayotova-Pencheva.

6. Critical remarks and recommendations:

In the general assessment of the overall teaching and research activities of Assoc. Prof. Mariana Panayotova-Pencheva, I would like to recommend that she make efforts to develop and publish a monographic work with which to outline her profiled competencies.

7. Personal impressions:

I have known my colleague Dr. Mariyana Panayotova since the time when she was a part-time lecturer at the Faculty of Veterinary Medicine at the University of Forestry in the relevant parasitological disciplines, for more than 25 years. At that time, a lot of practical work was done, thanks to which the

Faculty of Veterinary Medicine passed two national accreditations and the consultative visit of the representatives of EAEVE. This experience also helped her in preparing the already mentioned self-assessment reports before the NAEA for the Doctoral Program in Parasitology of IEMPAM. This shows her visible and responsible commitment to the educational process and the conduct of scientific research and the ability to combine scientometric and administrative skills. She exhibits an ethical attitude towards her colleagues and students and is accepted and understood by everyone with respect, honor and proven capacity in the general human and veterinary medical scientific specialty of parasitology.

8. Conclusion:

Based on the general description of the presented materials and the covered minimum national requirements for each individual group of indicators, as well as the overall extremely high scientometric data obtained, which exceed the minimum national requirements by about six times, for the professional scientific specialty of the competition, and on the basis of the demonstrated scientific results, scientific contributions and personal qualities, I give a positive assessment, and I believe that the candidate in the competition comprehensively covers the requirements for holding the academic position of "PROFESSOR", and therefore I propose that Associate Professor DVM Mariyana Stoycheva Panayotova-Pencheva, PhD, to be elected as "PROFESSOR" in the scientific field 4. Natural Sciences, Mathematics and Informatics, Professional Direction 6.4. Veterinary Medicine, specialty "Parasitology and Invasive Diseases of Animals and Humans", announced for the needs of the "Experimental Parasitology" section at IEMPAM-BAS.

Reviewer's signature: 
(Prof. DVM E. Sapundzhiev, PhD, DSc)

The review was submitted on: 22 January 2026