

## OPINION

Вх. № 19  
Дата 14.01.2025г.

On the materials for participation in competition for academic degree "Assoc. Professor" in the field of higher education 6. Agricultural sciences and veterinary medicine, professional field 6.4. Veterinary medicine, scientific specialty "Parasitology and invasive diseases of animals and humans" for the needs of the section "Experimental parasitology" at IEMPAM-BAS, published in the State Gazette № 85/08.10.2024

**Reviewer:** Prof. DVM Emil Ivanov Sapundzhiev, PhD, DSc in PN 6.4. "Veterinary medicine", according to an order of the Director of IEMPAM-BAS № РД-15-55/01.11.2024 г., for the composition of the Scientific Jury and protocol of its first meeting from 12.12.2024.

### **Candidate for participation in the competition is:**

The only one candidate is Chief Assistant DVM Delka Salkova Salkova, PhD, from IEMPAM-BAS, and it's Section "Experimental Parasitology".

### **1. Career development of the candidate**

Delka Salkova Salkova was born in town Panagyurishte in 1976 and studied high school "St. St. Cyril and Methodius" in Strelcha town, in a class with extended foreign language training, and graduated in 1994. From the same year up to 2000, she was a student at the Veterinary Medicine Faculty of the Thracian University in Stara Zagora, where she graduated with very good results, as a "Master" in Veterinary Medicine, with the professional qualification "Veterinarian". She entered IEMPAM-BAS in 2005, as a veterinarian, and subsequently in 2009, Dr. D. Salkova went through the hierarchy of assistant titles and is now a chief assistant since 2010. At the same institute she defended her dissertation on the topic: "Influence of  $\text{NH}_4\text{VO}_3$  on the development of the nematode *Meloidogyne arenaria* (Neal, 1889) Chitwood, 1949 and host tomato", and was awarded by the Higher Attestation Commission with Diploma No. 30254/20.02.2006, the educational and scientific degree "Doctor" (PhD) in the scientific specialty "Parasitology and Helminthology", with code 01. 06. 19. Over the past 10 years, she has undergone specialization in bee diseases and 5 qualification courses for her research work. She is a member of several prestigious national and international scientific communities - the Bulgarian Parasitological Society, the European Federation of Parasitology, the World Federation of Parasitology. She speaks English at a very good level, French at a good level, and Russian at an excellent level. She has very good skills in working with computer programs and specialized laboratory electronic equipment. She demonstrates and includes in her work modern parasitological, microscopic, molecular biological and biochemical methods, which she masters highly professionally and shares with her colleagues.

According to official certificate No. LS-05 - 52/24.10.2024 from IEMPAM as of 24.10.2024, Dr. Delka Salkova has twenty years and nine months of experience in the specialty, starting from 01.01.2004.

### **2. Conformity of the submitted documents and materials of the candidate with the required ones according to the Regulations for DAS in IEMPAM-BAS**

When checking the documentation submitted for the competition, full compliance with the required documents is established, according to the Regulations for the Development of Academic Staff at IEMPAM-BAS. The materials of Dr. Delka S. Salkova are arranged according to 14 indicators both on paper and electronic media. It is noticeable that they are precisely assembled, according to the established order for such procedures and are described in a comprehensible manner. As a basis for referencing, the attached copies of documents in the sections correspond to the description and are numbered and arranged adequately.

### **3. Assessment of the teaching activity of the candidate**

The presented by Dr. Delka Salkova list of 8 lectures on bee diseases, presented during the years to specialist beekeepers, may be adopted to this indicator. Although this is not a required criterion for the growth of candidates for academic titles at IEMPAM-BAS and it can be assumed that she is gaining experience in this direction. This indicator can also be judged indirectly by her participation in a total of 42 scientific schools and forums, conferences, courses and other forms of preparation and reporting from the credit system for scientific development, which establishes coverage of the criterion to a general extent.

### **4. Assessment of the candidate's scientometric indicators:**

#### **4.1. Participation in scientific, applied and educational projects**

Dr. Delka Salkova has attached a certificate of participation during the period of scientific implementation in a total of 12 scientific projects, of which she was the Head of 3 under the EBR, she has co-participated in another 5 projects of the Institute, and she has participated in 4 external projects. She also has registrations and participations in 57 scientific forums in Bulgaria and abroad, for some of which she has been awarded certificates and diplomas. The topics of all of them show the parasitological direction and competencies, which outline the need for her participation. It makes a very good impression that the scientific projects are prepared and are implemented by teams of specialists in Bulgaria and/or abroad with different scientific specialties and qualifications, which also demonstrates of the capabilities of Dr. D. Salkova to work in a team and contribute to the implementation of larger-scale interdisciplinary research.

#### **4.2. Characteristics of the published scientific results**

In the competition documents, Dr. D. Salkova has attached a report on the compliance of the points with the National Minimum Scientometric Requirements (NMSR), which shows that with a required minimum for indicators A, B, Γ and Д of 400 points, she has accumulated a total of 516.90 points, which, distributed by content, are as follows:

1. According indicator A, she has a defended dissertation in the same specialty of the competition for "Associate professor" (the topic and data about it are reflected above) and I accept 10 scientific publications related to it, through which she fulfills the NMSR with 50 points.
2. According to the indicators in group B with a requirement of 100 points, Dr. D. Salkova presents for B4 - 10 publications, with the equivalent of a habilitation thesis (monograph), which gives a total of 130.95 points. Of these articles, 3 are from Q1, 2 are from Q2, 1 is

from Q3, and 2 are from Q4. The topics of the articles are dedicated to the main direction that Dr. D. Salkova and the section "Experimental Parasitology" have been developing for many years, namely research on viral and parasitic diseases and the parasite-host relationship, the condition of animals and bees. This outlines her professional direction and the scientific specialty in which she has the competencies of an established specialist - a parasitologist.

3. According to the indicators from group  $\Gamma$ , for which the NMSR is 200 points, it has a total of **231** points, rounded to the nearest whole number, as from  $\Gamma7$  - articles and reports published in scientific publications, referenced and indexed in world-renowned databases with scientific information, **100.41** points were received, respectively, and from  $\Gamma8$  - articles and reports published in non-refereed journals with scientific review or published in edited collective volumes, there are **130.54** points. All these articles have a parasitological direction and with their publication, the specialized community accepts them and recognizes the scientific value of the data obtained and their reliability and significance, which also emphasizes the role of Dr. D. Salkova in this field.

4. According to the scientometric indicators from section  $\Delta$ , concerning the candidate's citations, at the NMSR of 60 points, she collects the indicated result from indicator  $\Delta13$  - citations or reviews in scientific publications, referenced and indexed in world-renowned databases with scientific information. The competition report presents the citations of 3 scientific works with the participation of Dr. D. Salkova found in world databases. According to them, it is evident that she has 7 citations (excluding self-citations) and they are in international scientific publications, with which she collects **105** points, and I would like to emphasize that they are for the last 3 years. This is a reflection of the contemporary relevance of scientific developments and the international interest in the relevant parasitological research and the results in the publications of Dr. D. Salkova.

In addition to these characteristics of Dr. D. Salkova's publication activity, it should be noted that she has achieved a total impact factor of 16.681, with the individual IF being 2.67 and the h-index being 2.

As a recommendation, I would like to note that the candidate for the competition should develop and publish a monographic work that will outline her role as a scientist and specialist with a defined profile and direction.

#### **4.3. Contributions of the candidate.(scientific, scientific-applied, applied)**

From the attached materials and the topics of the published works, it can be assessed that the scientific contributions of Dr. D. Salkova are mainly in four directions.

The first direction includes contributions related to the development of the nematode *Meloidogyne arenaria* and its invasion of tomato plants, tracking the state of the biological cycle of the parasite, as well as the impact on plants when treated with an adaptogen.

The second direction is related to studies of the distribution, diagnosis and prevention of the main types of pathogens (parasitic, viral, bacterial and fungal), genetic diversity and the origin of pathogenic agents in the honey bee; its metabarcoding of the intestinal microbiome, hygienic behavior and the role of bees as a bioindicator of economically significant diseases.

The third direction is related to the spread, diagnosis, prevention and treatment of current parasitosis in wild and domestic animals, and the application of some antiparasitic drugs.


The fourth direction is related to the conduct of molecular-phylogenetic and genetic studies of local animal breeds, which leads to the preservation of the available biodiversity and population structure in the existing paternal lines of Arabian horses, as well as some autochthonous breeds of goats and sheep.

In general, the contributions in all four directions are designed as original and confirmatory, and in connection with them, relevant recommendations for practice are presented, which can be perceived in essence and are related to the direct scientific results and conclusions from the publications. In connection with the unification of the data and their more coherent arrangement, they can be classified depending on their type: of a scientific-theoretical, scientific-applied and/or methodological nature.

### **CONCLUSION:**

The materials and documents submitted for the competition are in full compliance with the Unified State Requirements, the Regulations on the Conditions and Procedure for Acquiring Scientific Degrees and Holding Academic Positions at the Bulgarian Academy of Sciences, and the Law on the Development of the Academic Staff in the Republic of Bulgaria.

Based on the general description of the presented materials and the covered NMNI for each individual group of indicators, as well as the generally obtained high scientometric data, which exceed the NMSR, for the professional scientific direction of the competition, and on the basis of the demonstrated scientific results and contributions, I give a positive assessment, and I believe that the candidate comprehensively meets the requirements for occupying the academic position of "ASSOCIATE PROFESSOR", and therefore with full conviction I call on the esteemed members of the Scientific Jury to support my positive vote and propose that Dr. Delka Salkova Salkova, PhD, to be elected as "ASSOCIATE PROFESSOR" in the scientific field 6. "Agrarian Sciences and Veterinary Medicine", professional direction 6.4 "Veterinary Medicine", in the scientific specialty "Parasitology and Invasive Diseases of Animals and Humans" for the needs of the section "Experimental Parasitology" at IEMPAM-BAS, and to be proposed to the Scientific Council of IEMPAM-BAS for approval.

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

The review was prepared on: 14.01.2025.