

O P I N I O N

on the materials for participation in a competition for the academic position of "Associate Professor", field of higher education 6. Agrarian Sciences and Veterinary Medicine, 6.4. Veterinary Medicine, scientific specialty „Parasitology and Invasive Diseases of Animals and Humans“ (04.03.07), announced by IEMPAM - BAS in the State Gazette No. 85/8.10.2024.

Candidate for participation in the competition:

1. Chief Asst. Dr. Delka Salkova;

Opinion by Dr. Katerina Stanimirova Dimitrova, Associate Professor in 6.4. Veterinary Medicine from IEMPAM-BAS.

1. Brief biographical data about the candidate

Delka Salkova Salkova was born in 1976 and after graduating from the Secondary Educational Institution "St. St. Cyril and Methodius" in the city of Strelcha, she became a student in September 1994 until April 2000 at the Thracian University - Stara Zagora, at the Faculty of Veterinary Medicine, Master of Veterinary Medicine. Her doctoral dissertation was defended before the Higher Attestation Commission in 2005 on the topic: "Influence of NH₄VO₃ on the development of the nematode *Meloidogyne arenaria* (Neal, 1889) Chitwood, 1949 and the host tomato" in the professional field: 6.4. Veterinary medicine, scientific specialty „Parasitology and Helminthology“, Diploma No/date: 30254 / 20.02.2006, approved by Protocol No/date: 17-03 / 06.12.2005.

Chief Assistant Dr. Salkova in 2013 conducted a specialization at the All-Russian Research Institute of Experimental Veterinary Medicine named after Ya. R. Kovalenko, Moscow, Russia on the topic "Bee Diseases - Diagnosis, Prevention and Treatment". She has qualifications in the following courses and specializations: Protection and Humane Treatment of Experimental Animals Used for Scientific or Educational Purposes; Experimental Modeling - a Modern Effective Approach in Biomedical Research; Course on Approaches for Evaluation of Medical Devices, Synthetic and Natural Products for Biomedical Purposes; Course on Diagnostic Markers of Diseases in Humans and Animals; Training for Development, Implementation and Maintenance of a Hazard Analysis and Critical Control Point System with the following modules: 1. Application of HACCP Principles, Risk Assessment; 2. Good Manufacturing and Commercial Practices; 3. Verification and Validation of the HACCP Plan".

Dr. Salkova has worked in the field of veterinary medicine and has experience in: testing and implementing new tools in beekeeping practice; various molecular biological techniques, such as recombinant DNA technologies, PCR, etc.; testing the effectiveness and presence/absence of resistance to the *Varroa destructor* mite of registered VMPs for combating varroatosis in bees, etc.; organizing and conducting field and laboratory studies and experiments; applying various microscopic techniques, biological, molecular biological and biochemical methodologies and has participated in training programs for beekeepers.

Currently a member of the following organizations: Bulgarian Parasitological Society, European Federation of Parasitology, World Federation of Parasitology

2. Compliance of the submitted documents and materials of the candidate with those required under the Regulations on the terms and conditions for acquiring scientific degrees and for occupying academic positions at the Institute of Experimental Morphology, Pathology and Anthropology with a Museum - Bulgarian Academy of Sciences

Dr. Delka Salkova has submitted her participation documents on time, collecting more than the required 400 points by law, namely:

By indicator "A". Dissertation for awarding the educational and scientific degree "doctor": 50 points, by indicator "B" - 130.95 points, by indicator "D" - 230.95, by indicator "E" - 105 points, which gives a total of 513.90 points.

The candidate has submitted a Certificate of Compliance with the Minimum Requirements of IEMPAM - BAS for the Academic Position "Associate Professor", has provided a list and copies of her scientific production, a certificate of internship, as well as a list of the contributions of her scientific research work. Dr. Salkova was confirmed as an eligible candidate for this competition in the the science field 6.4. by the specialists at NACID and is registered at the following link:

<https://ras.nacid.bg/dissertation-preview/26260>

3. Evaluation of the candidate's scientific, applied and publication activities

The total number of scientific works of Dr. Salkova in the competition is 56: 10 publications in publications that are referenced and indexed in world-renowned databases of scientific information, 15 publications published in scientific publications, referenced and indexed in world-renowned databases of scientific information, 31 publications published in non-refereed journals with scientific review or published in edited collective volumes. More than the required citations of her publications in referenced and indexed in world-renowned databases of scientific information are presented.

The total impact factor of the presented works is 16.7. Dr. Salkova has participated in 57 scientific forums with 83 reports and posters. She has also participated in 12 projects as a leader or participant.

Regarding the quantity and quality of the publication activity, I can note that they fully meet the national and institutional criteria, and also - some of Dr. Salkova's publications fall into the categories of journals with rank Q1 and Q2 of Scopus and other reputable journals.

The main contributions in the candidate's developments are in the field of parasitology, and are systematized in the following groups:

I. Research of a scientific and fundamental nature.

1. 1. Study of the distribution, diagnosis and prevention of the main types of pathogens (parasitic, viral, bacterial and fungal diseases) in the honey bee *Apis mellifera*. Metabarcoding of the bee microbiome, hygienic behavior in bees and their role as a bioindicator.

1. 2. Molecular identification and monitoring of current diseases in bees (parasitic and viral). Genetic diversity and origin of pathogenic agents;

1. 3. Distribution, diagnosis, prevention and treatment of current parasitic diseases in wild and domestic animals;

1. 4. Study of the influence of vanadium, various glycosides and radiation exposure on the development of gall nematodes;

1. 5. Molecular-phylogenetic and genetic studies of local animal breeds.

II. Scientific-applied studies.

2. 1. Testing of veterinary medicinal products (VMPs) used in practice to establish (presence/absence) of resistance;

2. 2. Testing of new combinations of essential oils and plant extracts, and studying their influence on the health status of bee colonies;

2. 3. Study of the influence and effectiveness of various antiparasitic agents applied to wild and domestic animals;

2. 4. Recommendations for practice.

The modern challenges faced by beekeepers in recent decades have provoked in the candidate a number of questions related to the study of the main causes and the need for accurate diagnosis and timely prevention of current diseases. As a result of Dr. Salkova's work, many results on the topic of a confirmatory or original nature have been obtained. Bees are the main pollinator of a huge number of agricultural crops and wild plants. On the other hand, they and their products are used as bioindicators for environmental pollution with pesticides and heavy metals. The scientific and research interest in the presented areas was provoked in the candidate both in connection with the profession of a veterinarian and the attachment to the field of animal husbandry - specifically breeding and treatment, in which she has been engaged for years.

4. Critical remarks and recommendations

I have none.

5. Personal impressions

As a fellow veterinarian and in the function of head of the "Pathology" section at IEMPAM - BAS and as scientific secretary of the institute for the last 3 years, I have long-term observation of the work of my colleague in the "Experimental Parasitology" section. I have also formed part of my impressions during our joint visits to scientific conferences in the country.

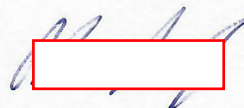
Although we do not work on common projects and topics, I would like to express my entirely positive impressions of Dr. Salkova, both personally and professionally. This impression is also reinforced by the respect of colleagues from the section, foreign colleagues and those in the industry, which I have observed over the years.

Dr. Salkova has prominent interests and long-term professional achievements in the field of the competition and a personal calling as a hereditary beekeeper who has accumulated personal and family experience in the field of parasitology and invasive diseases of these beneficial insects. This makes Dr. Delka Salkova a desirable candidate for the competition and with the necessary experience, skills and experience. I believe that she possesses key skills and puts effort into her professional realization and can be given full confidence in her overall work and expertise.

I PROPOSE

Dr. Delka Salkova Salkova to take up the academic position of "Associate Professor" in the scientific specialty "Parasitology and Invasive Diseases of Animals and Humans" (04.03.07).

Prepared by: Assoc. Prof. Dr. K. Dimitrova, IEMPAM-BAS



The opinion was submitted on: 30.1.2025