

БЪЛГАРСКА АКАДЕМИЯ НА НАУКИТЕ
И-Т ПО ЕКСПЕРИМЕНТАЛНА МОРФОЛОГИЯ,
ПАТОЛОГИЯ И АНТРОПОЛОГИЯ С МУЗЕЙ
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СОФИЯ

STATEMENT

Subject: Evaluation of the materials submitted for participation in a competition for the academic position of "Associate Professor" in a professional field 6.4. Veterinary medicine, research specialty "Parasitology and invasive diseases in animals and humans" with code 04.03.07, section "Experimental parasitology", at the Institute of Experimental Morphology, Pathology and Anthropology with Museum - BAS, published in the State Journal issue 10 of 05.02. 2021 with the only candidate Assistant Professor Dr. Veselin Nanev Nanev

from

Associate Professor Dr. Borislava Georgieva Chakarova, MD, Thracian University – Stara Zagora

In the competition for the position "Associate Professor" announced in State Journal issue 10 from 05.02.2021 for the needs of the section "Experimental parasitology" at IEMPAM - BAS - Sofia, as a candidate participates in Assistant Professor Dr. Veselin Nanev Nanev from the same section.

In the competition for an associate professor in a professional field 6.4. Veterinary medicine, scientific specialty "Parasitology and invasive diseases in animals and humans" with code 04.03.07. Assistant Professor Dr. Veselin Nanev Nanev is the only candidate who submitted documents. In 2001, after successfully passed state exams graduated the faculty of "Veterinary Medicine" at "University of Forestry", Sofia with a master's degree in "Veterinary Medicine" professional qualification "DVM". In the same year, after winning a competition, he was elected an assistant at IEMPAM - BAS, successor of IEPP - BAS. Dr. Nanev acquired the academic position of a Assistant Professor in 2014 in the Department of Parasitology at IEMPAM - BAS.

Thematically, the main part of the candidate's research activity can be grouped in the following areas: applied and experimental parasitology, biochemistry, ecology and elementology.

The contributions in the scientific works have an original, confirmatory and scientifically applied character. The main part of the research is in the field of experimental and applied biochemistry. Certain biochemical phenomena in the parasite-host system have been studied: composition of microelements and trends in the relationship. The development of an imbalance in the composition of microelements, redistribution and deficiencies of nutrients in the tissues (liver and muscles), against the background of increased activity of transaminases of infected hosts, has been proven. The contribution is confirmatory, with practical utility for veterinary science and practice, showing the need for substitution therapy in

infected hosts.

Experimental formulations designed to test the effect of new metal compounds, sources of nutrients (Mn, Cu, Zn), show a positive effect of homeostasis, antioxidant and mineral composition of parasites with different taxonomically. These results were achieved through the application of an innovative experimental model developed for the purposes of the study, with a combination of components, applied for the first time in such studies. Infected hosts and non-infected animals were treated with two new groups of metal compounds [(2Gly.MeC₁₂.2H₂O, Me = Zn / Mn) and (Zn₅-xCu(OH)₈C₁₂.H₂O)], containing trace elements of heavy metals important for metabolic processes. - Mn, Cu, Zn and in comparative aspect the content of the elements in the tissues of the hosts and in the parasites is determined. It is proved that the complex application of antiparasitic agents and appropriate microelements is important not only for the control of parasitic invasions, but also for the restoration of homeostasis in the parasitic organism, which is an original contribution with scientific and practical application.

In order to study the oxidant-antioxidant status of parasitic hosts (rats, rabbits, mice and lambs) with parasites of different taxonomic affiliation (*Fasciola hepatica*, *Eimeria sp*, *Trichinella spiralis*, *Haemonchus contortus*), another model system was formed. A complex multibiomarker approach has been applied to prove biochemical markers for oxidative stress in various parasites. In two groups of animals – infected and noninfected, the antioxidant nutrients were quantified: Zn, Cu, Se, vitamins E, A and C. The activity of the antioxidant enzymes catalase, glutathione peroxidase, superoxide dismutase, glutathione and malondialdehyde was found. The contribution is original and its scientific and practical application is suitable for targeted supplementation with antioxidants in certain parasites.

The effects of two stress factors - toxic metal compounds and diethylnitrosamine (a carcinogenic agent) in small mammals - have been studied experimentally and in the field. The research teams, in which Dr. Nanev also participates, make an original contribution to science by proving that bilaterally in the parasite-host system toxic metal compounds are able to accumulate and have the corresponding influence. Endohelminths selectively accumulate toxic elements such as Pb, Cd, Zn, Mn, Cu to a much higher degree than their hosts. When comparing the obtained results, the authors apply mathematical methods, which reliably proves the significance of the differences in the bioaccumulation index for toxic metals and biogenic ones.

The accumulation of heavy metals in living organisms as a bioindicator of heavy metal pollution of the environment and the effects of contamination in the parasite-host system is another direction of Dr.

Nanev's research. The complex effect of the geochemical environment (abiogenic factor) and helminthic invasion (biogenic factor) on the content and redistribution of transition metals in the host organism is proved. It has been established that the endohelminthic-wild animal system is a sensitive and possible bioindicator, reflecting the anthropogenic impact through the content of heavy metals in it. The contribution is original, with scientific and applied possibilities for parasitology, biogeochemistry and ecology.

The development of an original integrated approach from biochemical, chemical, morphological and hematological studies in vivo model in rabbits and rats to test new compounds as bone substitutes used in medicine and dentistry is an innovative approach and has an original scientific contribution. The developed comprehensive approach is important for human and dental medicine.

I accept the reference for the scientific contributions, presented by Dr. Veselin Nanev. The indicated scientific and scientific-applied contributions related to them fully correspond to the topic of the competition.

Assistant Professor Dr. Nanev has 81 publications in international and national publications, other than those for ONS "Doctor", which are five issues. The candidate participated with a total of 77 publications in the competition, and in almost 1/3 of them, he is the first author. Of these, 18 are printed in journals, referenced and indexed in the international databases of Web of Science and SCOPUS, and the other 21 are in journals that are recognized by NACID, according to the requirements of ZRZASRB from 2018. for specialty 6.4. Veterinary Medicine. Of these 18, 9 are with Q and can be grouped as follows: Q1-1 pcs., Q2 - 2 pcs., Q3 - 2 pcs., Q4 - 4 pcs., The other 9 are in referenced and indexed in WoS or SCOPUS with SJR.

There are 10 citations (without self-citations) in international publications.

The participation of an Assistant Professor Dr. Nanev in scientific forums are 45.

The research was carried out through national and international research projects, of which: 6 funded by the NSF (in one of them, the candidate is a research supervisor), 3 - from external sources and 4 - by the EBRD. Dr. Nanev's participation in joint projects with the Russian Academy of Sciences (RAS) is highly appreciated, and therefore, he was awarded a diploma of thanks from the RAS. Currently, the applicant is the research supervisor of a group from IEMPAM to an ongoing project funded by NFS.

The candidate in the competition is a member of the Bulgarian Parasitological Society, European Federation of Parasitology, World Federation of Parasitology, which creates wide opportunities for

professional international contacts.

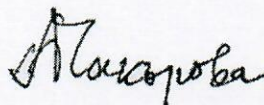
I do not know Dr. Veselin Nanev Nanev personally, but from the documents provided to me for his participation in the competition for an associate professor in the scientific specialty "Parasitology and invasive diseases in animals and humans" I am left with the impression that he is precise, consistent, with clear goals and skills to achieves, with extensive experience and significant contribution to research developments scientist. I believe that these are necessary qualities for holding the academic position of an "Associate Professor".

I have some critical remarks, but they are of a technical nature and do not concern the requirements of PPZRASRB for participation in the competition for the academic position of "Associate Professor" at IEMPAM - BAS.

Based on the materials provided to me in the competition of Ch. Assistant Professor Dr. Veselin Nanev Nanev, I believe that he fully meets the requirements of PPZRASRB of IEMPAM - BAS for participation in the competition for the academic position of an "Associate Professor". His research activity covers and in some parts exceeds the scientometric indicators and criteria of PPZRASRB of IEMPAM - BAS and for the purposes of the competition.

Confidently give a positive evaluation and suggest the honorable scientific jury and the Scientific Council of IEMPAM - BAS, Assistant Professor Dr. Veselin Nanev Nanev to be elected to hold the academic position of "Associate Professor" in the scientific specialty "Parasitology and invasive diseases in animals and humans".

Signature:



Дата: 14 май 2021 г.