

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

OPINION

From Prof. Svetlozara Petkova, Ph.D.

Institute of Experimental Morphology, Pathology and Anthropology with Museum

Member of a Scientific Jury appointed by order RD-09-29 / 21.05.2021

of the director of IEMPAM-BAS

Subject: competition for the academic position of "Associate Professor" in the scientific specialty "Parasitology and Helminthology", code 01.06.19, professional field 4.3. Biological sciences, for the needs of the section "Experimental parasitology" of IEMPAM-BAS, announced in SG 30 / 13.04.2021

The only candidate for participation in this competition is Ch. Assistant Ivelin Angelov Vladov, Doctor of Experimental Parasitology, IEMPAM-BAS. He presented systematically and correctly the necessary documents according to the requirements of the Law for development of the academic staff and the Regulations for the conditions and the order for acquiring scientific degrees and for holding academic positions in IEMPAM-BAS.

Chief Assistant Ivelin Angelov Vladov, PhD is a master's degree in "Ecology and Environmental Protection" from Sofia University "St. Kliment Ohridski ", Faculty of Biology-2006. Educational and scientific degree "Doctor" in "Parasitology and helminthology" was awarded in 2016 with a dissertation on the topic: "Molecular and clinical studies of parasites of the genus *Eimeria* in an experimental model of rabbits ". Since 2017 he has held the academic position of "Chief Assistant" in "Parasitology and Helminthology". His work experience in the specialty is 15 years and in addition to scientific and experimental work he has performed various types of organizational and expert activities at IEMPAM - BAS. In recent years he has been in charge of the IEMPAM Vivarium, maintains the institute's website as a system administrator, and has gone through numerous courses and qualifications.

Under the current competition, Ch. Assistant Vladov presents 93 publications in international and national publications, other than those for ONS Dr. With five publications, all of which he is the first author, he acquired ONS Doctor in 2016. The candidate has 20 publications printed in journals, referenced and indexed in the international databases of Web of Science and SCOPUS (Q1-10 issues, Q2 - 6 pcs., Q3 - 3 pcs., Q4 - 1 pcs.). In addition, there are 3 abstracts printed in

journals with Q1, referenced and indexed in the international databases of Web of Science and SCOPUS and another 73 articles in journals and proceedings of working groups and conferences. The participation of Ch. Assistant Vladov in international and national scientific meetings and forums are 119. 67 reports were presented and 52 posters were presented. According to the reference provided in the database Scopus and Web of Science, 81 citations were found. The IF values of the publications of Chief Assistant Dr. Ivelin Vladov are: the total IF - 52.331, and the personal IF - 6.724.

From the materials submitted in the competition it is established that the required national scientometric indicators for each individual group (A + B + D + E) are fully covered and exceeded.

The scientific and scientific-applied contributions of the candidate are in the fields of parasitology, molecular biology, toxicology, biochemistry and ecology. The influence of newly synthesized and natural chemical agents has been studied in experimental parasitic *in vivo* and *in vitro* models. Many classical and modern scientific methods have been mastered and applied (morphological, biochemical, molecular-biological, PCR and RT-PCR, toxicological, morphometric and statistical methods). The pathogenetic mechanisms of the parasite-host interaction have been studied. The antiparasitic effect in experimental models of the genera (*Eimeria*, *Trichinella*, *Fasciola* and *Haemonchus*) was studied.

In experimental *in vivo* models of rodents, the effect of different metal salts and their bioaccumulation in different organs in subacute, acute and chronic treatment was studied and it was found that monensin, salinomycin and deferiprone can be used as antidotes in heavy metal intoxications.

A model of acute chemical hypoxia was developed on an experimental model of ICP mice. It establishes significant morphological and hemorheological changes in the three types of blood cells. In experimental *in vivo* models, the regulatory role of cobalt has been established depending on the type of its chemical compound, the dose administered, the duration of treatment and age. A real-time PCR model with Melting Curve Analyzes and Hight Resolution Melting Analyzes on *Eimeria* rabbit and *Trichinella* species was applied, allowing rapid assessment of large volumes of material, regardless of taxonomic affiliation.

It has been proven that hemocyanins can successfully perform the function of non-specific and active stimulators of the immune system, improving the body's resistance. In blood samples from animals experimentally infested with parasites, oxidative stress status was detected by

changes in the activity of three major antioxidant enzymes (CAT, Cu-Zn SOD and Se-GPx) and the level of the lipid peroxidation marker MDA. New biomaterials with improved physicochemical characteristics, biocompatibility and biological activity have been developed. The developed multidisciplinary approach is of direct importance in osteoinduction of bones for veterinary, human and dental medicine.

The documents submitted by Chief Assistant Ivelin Angelov Vladov, PhD, in a competition for the academic position of "Associate Professor" fully meet the regulatory requirements of Academic Staff Development Act and the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions in IEMPAM - BAS.

The numerous developments and obtained results are of original and contributing nature for parasitology and helminthology and reflect the persistent and precise work of the candidate over the years. Ivelin Vladov also has the human qualities and virtues that allow him to work in a team and for the benefit of his colleagues. Extremely responsible and dedicated to scientific work and at the same time taking on the challenges related to various initiatives and responsibilities at IEMPAM.

I am confidently giving a positive opinion and I suggest to the respected members of the Scientific Jury to choose a chief assistant Ivelin Angelov Vladov, PhD for "Associate Professor" in professional field 4.3. Biological sciences, scientific specialty "Parasitology and helminthology" (01.06.19) for the needs of the section "Experimental parasitology", at IEMPAM-BAS.

11.08.2021

Prof. Svetlozara Petkova

