



О P I N I O N

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elected member of the Scientific Jury on the basis of order № RD-09-07 / 07.02.2022, of the
Director of IEMPAM - BAS, Sofia

SUBJECT: Competition for the academic position of "Associate Professor" at the Department of Pathology of IEMPAM - BAS, in the field of higher education 6. Agricultural Sciences and Veterinary Medicine, professional field 6.4 Veterinary Medicine, scientific specialty 04.03.06 "Animal Pathology".

I. Biographical data and career profile of the candidate

The only candidate in the announced competition for the academic position of "Associate Professor" at the Department of Pathology, IEMPAM, BAS, Sofia is Chief Assistant Dr. Katerina Stanimirova Dimitrova, PhD, from IEMPAM.

During the period 1998 - 2005 she graduated from Forestry University - Sofia, Faculty of Veterinary Medicine, where she obtained a master's degree in Veterinary Medicine

Since 2010 Katerina Dimitrova has been an assistant at IEMPAM. Currently, the candidate holds the academic position of "Chief Assistant" in the scientific organization (elected in 2016). Administratively, she has been the Head of the Pathology Section of IEMPAM for several years.

In 2014 Katerina Dimitrova obtained the educational and scientific degree "Doctor" after successfully defending a dissertation on the topic: PATHOMORPHOLOGICAL AND IMMUNOLOGICAL STUDIES IN CHICKENS EXPERIMENTALLY TREATED WITH FUMONIZIN B1.

The main activities and responsibilities of the candidate as researcher and scientist at IEMPAM include performing pathomorphological microscopic (light and electron) visualizations, as well as immunohistochemical screening of pathological changes in current viral, bacterial, parasitic and autoimmune diseases, incl. in intoxication. Here I must mention that in administrative terms at the moment, in addition to "head of the section", Chief Assistant Dr. Katerina Stanimirova Dimitrova, PhD, holds the position of "Scientific Secretary" of IEMPAM. He is a member of the Anatomical Society in Bulgaria.

II. Presented materials for the competition

The candidate presents a total of 53 scientific publications, of which 31 articles in journals indexed in WoS, Scopus, ERIH +, and 22 of her research papers are in publications that are not indexed in WoS, Scopus, ERIH +, as well as in scientific thematic collections. The number of participations of the candidate in national and international scientific forums is impressive - 61. At the moment of the competition she is aware of 44 citations of her publishing activity, as the main part of these citations are found abroad in renowned scientific journals.

The information provided for the fulfillment of the minimum requirements for holding the academic position of "Associate Professor" according to Law for the Development of the Academic Staff (LDAS) in Bulgaria and the specific requirements of IEMPAM shows a sufficient amount of points on indicators A, B, D and E - 461.5, which is above the required minimum.

The teaching activity of Dr. Katerina Dimitrova includes conducting specialized courses in different years and can be summarized as follows:

- Electron microscopy, techniques for inclusion of materials, immunocytochemistry - 50 hours.
- Replication, transcription, translation, cell division - morphological aspect - 60 hours.
- Modern electron microscopic techniques in biomedical research - 60 hours.

Part of the professional commitment during the years of academic growth of Ch. Assistant Katerina Dimitrova, PhD is realized as training and active assistance in preparing dissertations of doctoral students, graduates and scientists at LTU (Wood Technical University), Thracian University, Food Safety Agency; students and doctoral students of Rīga Stradiņš University - Latvia, Comenius University Bratislava - Slovakia, as well as acquaintance with topics in the field of biomedicine of students from different schools in our country.

According to the competition announced in the State Gazette, issue 107 of 16.12.2021 Ch. Assistant Katerina Dimitrova, PhD, submitted the following required documents in time: application for participation in the competition, copy of diplomas, certificate of internship in the specialty, CV on EU model, reference for contributions, list of scientific publications, copies of scientific publications, list of citations, reference for impact factor, list of participations in scientific forums, list of participations in projects, etc.

This volume of documents on the competition is in full compliance with the minimum required by the standards adopted by the Scientific Council of IEMPAM-BAS, Sofia and (LDAS) and the Regulations for its application in the competition for academic positions.

III. Evaluation of scientific activity and contributions

During all his years of research work Katerina Dimitrova has established herself as a good specialist in a wide range of studies in the field of pathological and clinical aspects of diseases in humans and animals of infectious and non-infectious nature, study of biological activity and safety of newly synthesized, nanostructured materials or natural products purpose of their

medical application. An important aspect of her work is research in the field of cytopathology, experimental oncology and implantology.

Ch. as. Dr. K. Dimitrova applies to established experimental cellular and animal model systems well-established and modern experimental approaches. These include: cytological methods, hematological examinations, histological examinations, classical and modern methods for light and electron microscopy (microscope Leika DM 500B Wetzlar, Germany, electron microscope JEOL 1200 EX), immunofluorescent imaging, histochemistry and of course skillful statistical processing. , using the computer program GraphPAD Prism and using different variants of ANOVA analysis with the corresponding subtests.

More important in this case is the assessment of the candidate's scientific contributions, which are divided into two groups:

I. Contributions from the dissertation - which I will not dwell on, as their assessment was given in the defense of the dissertation and I accept them without objection.

II. Contributions of fundamental and scientific-applied importance related to this competition - they occupy a significant place as a result of the scientific activity of the candidate and include:

1. Contributions obtained in the study of the biological activity of natural and synthetic products with concentration on the study of the properties of a number of plant extracts and products of hemolymph of invertebrates in vitro and in vivo, after screening for anticancer, bactericidal, immunomodulatory and antiparasitic effect. (Publications №№ G-20, G-28, G-35, G-41, G-19, G-26, G-33, B-3, G-4, G-8, G-27 G-34 , G-24, G-43, G-9, G-10, G-17).

2. Contributions from the study of the pathological and clinical aspects of certain diseases in humans and animals of infectious and non-infectious nature:

Here, as examples, I can contribute to the results of analyzes in connection with projects under the 7th Framework Program EU, 2013-2015, REGPOT-2013-1 Health, "Baltinfect", "Unlocking infectious diseases research potential at Riga 5 Stradins University". (Publications №№ B-6, G-14, G-15, G-25) including the role of human herpesvirus-6 (HHV-6) in the development of autoimmune thyroiditis (AIT). Another part of the candidate's contributions stems from the results of a study of hematological parameters in BLV-infected animals and patients with T-cell lymphoid leukemia. (Publications №№ B-1, G-1, G-2).

The information provided to me about the candidate's contributions is relatively accurate and emphasizes the nature of her research and publication.

Regarding the qualities and merits of the scientific production provided in the competition by Dr. Katerina Dimitrova, I could say that a thorough review of the candidate's publications shows a good combination of conventional classical research approaches with modern experimental methods of research and modeling. This unequivocally contributes to the quality of the results obtained in the career development of the candidate as a researcher and scientist.

IV. Critical remarks and recommendations

I do not have critical remarks and recommendations regarding the scientific production and the chosen research field. The balanced and even career development of the candidate takes place mainly in the field of veterinary pathomorphological science. Such studies are usually in response to the real needs of biomedicine and veterinary practice.

V. Overall assessment of the applicant's compliance with the mandatory requirements

The conduct of the procedure for the announced competition, as well as the presentation of the only candidate in it are in full agreement with the following specific documents:

1. Regulations for holding academic positions in IEMPAM - BAS
2. Correspondence of the candidacy of Ch. Assistant Dr. Katerina Stanimirova Dimitrova with the set of criteria and indicators for holding the academic position of "Associate Professor", according to (LDAS) and the Regulations for its implementation.

VI. Conclusion

The candidacy of Ch. Assistant Katerina Dimitrova, PhD in the competition for the academic position of "Associate Professor" fully complies with the required conditions, quantitative and qualitative criteria and scientometric indicators of the relevant documents adopted by IEMPAM - BAS on the basis of (LDAS) and its Regulations.

Due to the established positive indicators for evaluation of the academic development of the candidate, indicated and described in the relevant sections of my opinion, I believe that Ch. Assistant Dr. Katerina Dimitrova, PhD, meets the legal requirements and scientometric criteria for the academic position of "Associate Professor".

The real scientific contributions achieved so far by the candidate are also useful for IEMPAM - BAS. This gives me reason to recommend to the esteemed Scientific Jury, appointed in connection with the announced competition, to accept a positive proposal to the Scientific Council of IEMPAM Ch. Assistant Dr. Katerina Dimitrova, PhD, to be elected **Associate Professor** in the scientific specialty "Animal Pathology" (04.03.06), in the field of higher education 6. Agricultural Sciences and Veterinary Medicine and professional field 6.4 Veterinary Medicine.

Sofia, March 23, 2022