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OPINION

by Assoc. Prof. Dr. Borislav Vasilev Georgiev, National Museum of Natural History at the Bulgarian Academy of Sciences on a competition for the academic position "Professor", professional field 4.3 "Biological Sciences", scientific specialty "Parasitology and Helminthology", for the needs of the division "Biodiversity and Ecology of Parasites", department "Animal Diversity and Resources" of IBER–BAS, announced in State Gazette, issue 45/03.06.2025

One candidate has submitted documents in the competition – Assoc. Prof. Dr. Yasen Mutafchiev. The documents submitted for the competition meet the requirements of Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulations for its implementation of LDASRB, the Regulations for the Conditions and Procedures for Acquiring Academic Degrees and Occupying Academic Positions at both BAS and IBER–BAS. Associate Professor Mutafchiev graduated from Sofia University "St. Kliment Ohridski" in 2005 with a degree in "Zoology of Invertebrates". In the period 2005-2010, he was successively a specialist biologist, a doctoral student and again a specialist biologist at the Central Laboratory of General Ecology at the Bulgarian Academy of Sciences. From 2010 to 2015, he was a chief assistant, and from 2015 to the present, he has been working as an associate professor at the IBER–BAS. The candidate has more than nineteen years of work experience as a specialist parasitologist. He specialized in renowned foreign institutions – the National Museum of Natural History in Paris, the Museum of Natural History in Geneva, the University of Bari. He also won 5 scholarships under the EC Synthesys program, as a result of which he conducted scientific research in the specialty in the major European museums in Berlin, Vienna, London and Paris. Research visits in these prestigious scientific institutions have significantly contributed to the implementation of his research, as well as to his successful establishment as a specialist on parasitic nematodes.

In the competition, Assoc. Prof. Mutafchiev participates with a total of 22 scientific papers published in renowned journals having an impact factor (IF) and SCImago Journal Rank (SJR). The publications are distributed as follows:

Indicator B4. Habilitation paper – 7 scientific publications in international journals, which carry a total of 150 points and which cover the required minimum of 100 points in group of indicators B from the table for compliance with the national minimum requirements and the requirements of the Bulgarian Academy of Sciences (BAS).

Indicator Г7. Scientific publications in journals that are referenced and indexed in world-renowned databases of scientific information (Web of Science and Scopus), excluding habilitation work – 15. The scientific works under this indicator bring a total of 271 points, which covers the required minimum of 220 points, according to the Regulations for the Implementation of the LDASRB of the BAS.

According to **indicator Д11** – citations in scientific publications, monographs, collective volumes and patents, referenced and indexed in world-renowned databases of scientific information (Web of Science and Scopus), the candidate collects 678 points – a result of 339 citations of 41 his publications. The indicated sum of points exceeds by more than 5.5 times the threshold of 120 points, indicated for a group of indicators Д from the table for compliance with the requirements of the Regulations for the implementation of the LDASRB of the BAS. Dr. Mutafchiev's citations are predominantly from foreign authors, which is a serious certificate of international recognition of his scientific developments.

According to the **group of indicators E**, Assoc. Prof. Mutafchiev collects 169 points out of the required 150 points. The candidate was a consultant to a successfully defended doctoral student with professional realization in academic circles. He has participated or is participating in a total of 10 projects, including 3 international and 7 national. Dr. Mutafchiev is the leader of one of the projects. It is worth mentioning that four projects in which he participates are entirely of a fundamental nature and related to conducting specific studies of parasitic worms.

The presented report on the contributions fully and objectively reflects the research work of Dr. Y. Mutafchiev (few omissions are: (1) the absence of the genus *Ingwenascaris* Junker & Mutafchiev, 2017 in the list of published taxonomic acts, although the description of the genus was commented on earlier; (2) an indication that the species *Mammalakis zambiensis* Junker, Lutermann & Mutafchiev, 2017 is described in publication No. 17, and in fact in No. 39; (3) an indication that the study treating parasites of the Angiostrongylidae family in cats is in publication No. 16, and in fact in No. 15). The report also includes contributions to the habilitation work, which clearly outlines the candidate's scientific profile related to the study of the species composition, systematics, morphology, phylogeny and life cycles of zooparasitic nematodes of the suborder Spirurina in birds and mammals. Contributions outside the habilitation work cover a more diverse range of topics, the main ones being taxonomic, faunistic and ecological in relation to species from several orders of parasitic nematodes, but the main ones are again in relation to representatives of the order Spirulida.

A significant part of the candidate's original scientific contributions are taxonomic and some of them deserve to be mentioned.

3 new genera and 9 new species of parasitic nematodes of the family Acuariidae from the digestive tract of various bird species have been described (publications № 2, 6–8, 11, 13, 23–24, 36, 45). For representatives of the same taxonomic group, 10 new combinations, 5 new synonyms in the species group, changes and additions to the diagnoses of 3 genera have been proposed (publications № 6–9, 11, 13, 23–24, 27, 48, 52).

A phylogenetic hypothesis for the family Acuariidae has been prepared based on the 28S rDNA gene. Two major clades were established, the subfamily Seuratiinae was synonymized with the nominotypical subfamily, and the monophyly of the family was confirmed (publication № 48).

Morphological studies of nematodes from the family Spirocercidae (Spirurida) – parasites of mammals from Africa – were carried out, as a result of which 3 species new to science were described, one species was redescribed, and the morphological descriptions of 2 other species were supplemented, 3 new combinations in the species group were proposed, 2 genera were validated, and the diagnoses of 2 other genera were supplemented (publications № 17, 53).

The taxonomy and systematics of the family Physalopteridae (Spirurida) were studied, in which one species of parasitic nematode on Chernov's skink was redescribed, and 6 species of the genus Thubunaea were transferred to three other genera (publication № 50).

Two species and one new genus have been described from the stomach of the Nile crocodile (Ingwenascaris Junker & Mutafchiev, 2017), a third species of parasite of the same crocodile has been redescribed, and a new combination has been proposed for a fourth parasite of another genus and species of African crocodile (publications № 41-42, 47).

A new species of parasitic nematode of an endemic Zambian rodent species has been described (publication № 39).

All taxonomic publications of Assoc. Prof. Mutafchiev contain detailed morphological descriptions, supported by high-quality black-and-white drawings, color photographs, photographs taken with a scanning electron microscope, detailed and content-rich tables, as well as a number of keys for determining species.

The candidate's scientific contributions lead to the acquisition of new data on the morphology, systematics, distribution, phylogeny and ecology of over a hundred taxa of parasitic nematodes. The main part of the new data contributes to the clarification of the species composition, systematics and biology of the representatives of the order Spirurida.

The list of scientific works shows that the candidate is in first or second place in the authorship team in 17 of the 22 publications (or in over 77%) submitted for the competition. The scientific production presented convincingly demonstrates the personal contribution of the candidate in the preparation of the research material, the experimental design, the analysis, the interpretation and the publication of the scientific results.

The candidate’s profile (fauna, systematics, morphology, phylogeny and life cycles of parasitic nematodes) is very clearly outlined by the topics of the scientific articles, scientific projects, as well as the profile of the journals in which he has published or been cited. All of them fall entirely within the field of professional field 4.3 “Biological Sciences”, scientific specialty “Parasitology and Helminthology”.

From the above, it is obvious that **Assoc. Prof. Mutafchiev fully meets and even exceeds the requirements for holding the academic position of “Professor”** according to the LDASRB, the Regulations for its implementation of LDASRB, the Regulations for the Conditions and Procedures for Acquiring Academic Degrees and Occupying Academic Positions at both BAS and IBER–BAS: a defended doctoral degree, sufficient in volume and quality scientific production, supervision of scientific projects, supervision of a defended doctoral student and, most importantly,

significant scientific contributions. The candidate is a capable and productive scientist who has managed to establish himself as a specialist parasitologist of world renown. All this gives me reason to give a positive assessment of his candidacy for holding the academic position of "Professor" and to recommend to the esteemed members of the Scientific Council of IBEI–BAS to elect Assoc. Prof. Yasen Zhelyazkov Mutafchiev to the specified academic position.

Sofia, 29.09.2025 г.

Author of the opinion:

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