

OPINION

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member of the scientific jury for the academic position "Associate Professor" (published in the State Gazette, № 28/02.04.2024), confirmed by order of the Director of the Institute of Microbiology "Stefan Angelov" - BAS №. I-57/23.04.2024, field of higher education 7. Healthcare and sports, professional direction 7.1. Medicine, specialty "Pharmacology (incl. pharmacokinetics and chemotherapy)" - one, full-time position for the needs of the Biotechnology Department, Metabolomics Laboratory, Institute of Microbiology - BAS.

One candidate took part in the competition - Chief Assistant Professor, Master of Pharmacy Liliya Vladimirova Mihailova, PhD in the Metabolomics laboratory at the Institute of Microbiology "Stefan Angelov" - BAS.

I. Biographical data and career profile of the candidate

Chief Assistant Professor Liliya Mihailova, PhD, was born on June 20, 1988, in the city of Plovdiv. In 2013, she graduated in pharmacy at the Faculty of Pharmacy of the Medical University - Plovdiv. After graduating from the Faculty of Pharmacy, in the period from 2013 to 2016, master of pharmacy Lilia Mihailova specializes in the analysis of medicinal products at the Faculty of Pharmacy of the Medical University - Plovdiv. From 2016 to 2018, Master of Pharmacy Mihailova is an assistant in the Department of "Pharmacology and Medicinal Toxicology" at the Faculty of Pharmacy at the Medical University - Plovdiv. In 2017, she successfully defended his doctoral degree in Pharmacology (incl. pharmacokinetics and chemotherapy) at the Faculty of Pharmacy at the Medical University of Plovdiv.

Chief Assistant Professor Mihailova participated in 8 research projects, 1 of which is international. She specialized at the University of Namur, Namur (Belgium), specializing in the international project "Development of fXIIa inhibitors a promising target to treat and prevent thrombotic diseases". The candidate is fluent in English and has excellent technical skills in working with computer programs.

II. General description of the submitted materials for the competition

Chief Assistant Professor Master of Pharmacy Lilia Mihailova has attached a complete set of documents, following the Regulations of the Institute of Microbiology "Stefan Angelov" -

BAS: application to the Director of the Institute of Microbiology "Stefan Angelov" - BAS for admission to the competition with a description of the documents; creative resume in European format; diploma for completed education in pharmacy from MU - Plovdiv, diploma for acquired scientific and educational degree "Doctor" from MU - Plovdiv, certificate of internship in the specialty, list of publications, list of participations in scientific conferences, list of citations, report on performance of the minimum requirements according to ZRASRB, certificate of fulfillment of the additional requirements according to the rules of Institute of Microbiology - BAS, declaration of originality and credibility of the presented results in the candidate's scientific works and additional information about scientific activity. The documents are submitted on an electronic medium.

III. Evaluation of the scientific works of the candidate for the overall academic development

Chief Assistant Professor Lidiya Mihailova presented a report on 37 publications with a total impact factor of 130.96, of which 19 were published in journals from Q1 for the relevant scientific field. Assistant Professor Mihailova is the lead or corresponding author in 13 of them.

The candidate participated in the competition with a monograph and 37 scientific articles, as follows:

- Habilitation thesis of 12 scientific publications in publications that are referenced and indexed in world-renowned databases with scientific information.
- List of 12 publications referenced in Web of Science and Scopus;
- A list of 13 publications in non-refereed peer-reviewed journals or published in edited collective volumes.
- In 10 of the presented articles related to the competition for the academic position "Docent" Ch. Assistant Professor Liliya Mihailova is the first author.

In his self-evaluation, the candidate divided the points to be awarded for each scientific work presented, in proportion to the number of co-authors, and the candidate's points by groups of indicators, which I recognize, are as follows: indicator A - 50 points, indicator B - 134.17 points. and indicator D – 246.36 points.

The candidate meets the normative requirements for publication activity (indicator B – 134.17 points with a requirement of 100 points and indicator D – 246.36 points with a requirement of 200 points).

IV. Evaluation of the habilitation work submitted for participation in the competition and the candidate's scientific contributions

The candidate Master of Pharmacy Lilia Mihailova presented a habilitation thesis of 12 scientific publications in publications that are referenced and indexed in world-renowned databases with scientific information. The scientific contributions related to the presented habilitation work of the candidate have important scientific and applied importance.

Obesity is a complex multifactorial disease characterized by the accumulation of excess body fat. According to literature data, in 2022, 2.5 billion adults were overweight. Obesity increases the risk of many other diseases such as heart disease, diabetes, high blood pressure, high cholesterol, liver disease, sleep apnea, etc.

The scientific contributions of Chief Assistant Professor Lilia Mihailova is in the field of molecular pharmacology of obesity, longevity, and skin aging with a focus on the mechanisms of action of natural substances of plant origin. More important scientific contributions of the candidate are adaptation of experimental models of obesity in vitro in human adipocytes and in vivo in nematodes of the species *Caenorhabditis elegans*, antiobesity potential and mechanism of action of plant extracts and pure substances, enrichment of basic knowledge about the role of the inhibition of phosphoinositide-3-kinase (PI3K)/protein kinase B as central to the complex molecular signaling pathways affected in obesity, evaluation of extracts and pure substances to affect the molecular mechanisms of longevity in *Caenorhabditis elegans*, an adaptation of preclinical models of psoriasis and UV-induced in vitro skin aging in human keratinocytes, Evaluation of immunoregulatory activity and potential for use in chronic stress of extracts and pure substances of adaptogenic plants.

V. Citation of the candidate's publications in the national and foreign literature

The candidate Chief Assistant Professor Lilia Mihailova has prepared a list of citations of scientific publications for the entire scientific career, which are available in the Scopus scientific information database. According to this list, 435 citations are presented (6525 points with a requirement of 50 points, which repeatedly exceeds the minimum requirements under indicator D).

VI. Critical notes and recommendations

I have no critical remarks about the candidate. My recommendation is that he continue her high publication activity.

VII. General assessment of the applicant's compliance with the mandatory conditions and mandatory quantitative criteria and scientometric indicators according to regulation for occupying academic positions in the Institute of Microbiology "Stefan Angelov" - BAS

Field of higher education 7. Healthcare and sports, professional direction 7.1. Medicine.

Table 1. Minimum required points by groups of indicators for the academic position "Associate Professor"

Group of indicators	Content	Associate Professor	Ch. Assistant Professor Lilia Mihailova
A	Indicator 1	50	50
Б	Indicator 2	-	
B	Indicator 3 or 4	100	134,17
Г	The sum of indicators 5 to 9	200	246,36
Д	The sum of indicators from 10 to 12	50	6525

Table 2. Additional criteria for the growth of the academic staff according to Appendix 2 of the Regulations for the conditions and procedure for acquiring scientific degrees and for holding academic positions at the Institute of Microbiology "Stefan Angelov" at the BAS and the last line reflects the indicators of Chief Assistant Professor Lilia Mihailova.

Scientific degree or academic position	Number of publications in IF journals, chapters of monographs, proceedings of international forums published in full text, patents	Citation of the candidate's publications	IF	h-index	Additional requirements
Associate Professor	20 (after "PhD") in 5 of them 1st author or corresponding author	100	20	5	Participation in at least 3 projects
Chief Assistant Professor Lilia Mihailova	37 (after "PhD") in 13 of them 1st author or corresponding author	435	130,96	12	Participation in 8 projects

VIII. Conclusion

My comprehensive assessment of the research activity of Chief Assistant Professor Lilia Mihailova, PhD is positive. The candidate meets the mandatory and additional scientometric criteria in the ZRASRB and the Rules of the Institute of Microbiology - BAS for the occupation of the academic position "Associate Professor".

The materials submitted by the candidate for the competition show that Chief Assistant Professor Liliya Mihailova meets the requirements for the academic position "Associate Professor". The presented scientific works and evidence of the scientific activity meet the quantitative and qualitative criteria and show a high contribution character.

I propose to the respected members of the Scientific Jury to award Chief Assistant Professor Master of Pharmacy Liliya Vladimirova Mihailova, PhD, the **academic position "Associate Professor"** in the field of higher education 7. Health care and sports, professional direction 7.1. Medicine, specialty "Pharmacology (incl. pharmacokinetics and chemotherapy)" for the needs of the Biotechnology Department, Metabolomics Laboratory, Institute of Microbiology "Stefan Angelov" - BAS.

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Prepared the opinion:

На основание
чл. 2 от ЗЗЛД

/Prof. Dr. Rumen Pavlov Nikolov, MD/