

OPINION

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Regarding: *Competition for the academic position "PROFESSOR" in the scientific specialty "Medical Biology", field of higher education 4. Natural sciences, mathematics and informatics, professional direction 4.3. Biological sciences, department "Medical Biology" for the teaching of Bulgarian and English language - one, announced in SG No. 35 of 19.04.2024 and on the approved proposal of the FC of the Medical Faculty - MU- Plovdiv (protocol No. 6 of 26.06.2024)*

In the current competition for the academic position "Professor", one candidate submitted documents within the legal deadline and was admitted to participate: Associate Professor Maria Kazakova. The documents comply with all the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for its Application at the Medical University of Plovdiv.

Biographical data, professional development

Maria Kazakova completed her higher education at Plovdiv University "P. Hilendarski", where in 2005 he obtained a bachelor's degree in the specialty "Molecular Biology" and in 2006 - a master's degree in cell biology. In 2015, he graduated as a master's degree - manager of applied research at Plovdiv University "P. Hilendarski" In 2013, he obtained the PhD after defending a dissertation entitled "Immunobiological studies on YKL-40 in some inflammatory joint and tumor processes". In the same year, he acquired the specialty "Medical Biology". Since 2007, he has been an assistant, and since 2014, a chief assistant in the Department of "Medical Biology" at the MUP. In 2016, he held the academic position of "Docent" in the same department.

Prof. Maria Kazakova speaks English at B2 level.

Research activity

1. Scientific indicators

In the competition, Prof. Kazakova presented a total of 53 scientific works in scientific and medical journals; participation in 96 scientific forums, at which an equivalent number of reports, presentations, posters were presented; one monograph and 5 scientific articles equivalent to a monograph. Of these, after assuming the position of "associate professor", Associate Professor Kazakova presented a total of 27 scientific papers, the distribution of which is shown in table 1. I accept for review these 27 scientific papers plus 5 scientific papers presented as the equivalent of a monograph.

TABLE 1. Distribution of the scientific works of assoc. prof. Kazakova

Indicators	Befor assoc. prof	After assoc. prof	Total number
Total number of publications	26	27	53
In Journals with IF	6	17	23
total IF	6,615	51,576	58,191
In Journalss without IF	13	10	23
- In collections and electronic format	7	0	7
Positive cutations	55	225	365
Monograph	1	5 articles equated to a monograph	2
Participation in scientific congresses	45	51	96
- International	12	28	40
- National	33	23	56
Reviews	0		
-scientific articles	7	7	0
- scientific projects	2	2	0
-opinions/feedback/reviews	9	9	0
Learning aids	9	10	19
Textbook	0	1	1

Seventeen of the articles were published in journals with a total impact factor of 51.576. The five articles presented as a monograph have an impact factor of 17.193. Thus, after assuming the position of Associate Professor, Assoc. Professor Kazakova's impact factor is 68.769. Assoc. Professor Kazakova's scientific works have been cited a total of 365 times, with 225 of the citations being after holding the position of "associate professor". According to Scopus, Assoc. Professor Kazakova has h-index = 11.

A significant part of the scientific results and developments were reported as oral communications or were presented in the form of poster presentations in a total of 96 scientific forums. The total number of participations with reports or posters in international forums is 40. After assuming the position of "associate professor", Assoc. Professor Kazakova presented a certificate of participation in 51 scientific forums, of which 38 were with international participation.

Main scientific directions and contributions:

The analysis of the scientific publications outlines the following scientific, applied -scientific directions of the researches and contributions of Prof. Kazakova.

In the scientific direction "Biomarkers and molecular signatures in inflammation and tumorigenesis", Prof. Kazakova thoroughly investigated two markers: YKL-40 and LAMP-1/LAMP-2. The following scientific contributions have been made in this direction:

1. A mechanism for the regulation of YKL-40 by miRNA-214 in patients with systemic sclerosis (SS) has been proposed based on in silico and in vitro experiments in blood samples (Dichev et al., 2021) (2).
2. A mechanism has been proposed to control the synthesis of YKL-40, including a gene-regulatory axis of long-chain non-coding RNAs (dsRNAs), miRNAs and YKL-40 mRNA in CC (Dichev et al., 2021) (7).
3. The clinical significance of tissue expression of YKL-40 as a prognostic marker in metastatic colorectal carcinoma was first investigated (De Robertis et al., 2022) (8).
4. High gene and protein expression of LAMP-1 has been shown to be associated with tumor progression in high-grade gliomas (Sarafian et al., 2018) (item 7 of list of all publications).
5. The role of LAMPs and YKL-40 in acute infections of the central nervous system has been established (Kazakova et al. 2024)

The second scientific direction is "Cell Biology and Cell Metabolism". The following scientific contributions have been made in this direction:

1. The biological activity of new fluorenyl spirohydantoin, the structure and biological properties of substituted fluorenyl spirohydantoin (4, 5; from the complete list 3, 4, 9) were determined for the first time.
2. Metabolic profile in patients with autism spectrum disorder (ASD), changes in mitochondrial activity in a Bulgarian cohort and correlation with YKL-40 levels are reported for the first time (Gevezova et al. - under revision).
3. Mitochondrial activity in patients with Parkinson's disease was found to improve after treatment and an interaction with YKL-40 was suggested (Kazakova et al. 2023) (11).
4. New data have been presented on the presence of mitochondrial dysfunction in isolated PBMCs from newly diagnosed patients with rheumatoid arthritis ((Mihailova et al. 2023;) (10).

Participation in scientific projects:

In connection with the research activity, Prof. Kazakova actively participated in a total of 14 research projects:

- 7 research projects financed by Medical University-Plovdiv;
- 5 projects with national funding and
- two international projects.

Teaching activity

Associate Professor Maria Kazakova is an established university teacher. Table 2 shows her academic workload in the period 2020-2023. Associate Professor Maria Kazakova's average classroom occupancy is about 950 hours, of which 180 hours are lectures. In the 2022-23 period, her course load has increased by 30%.

Associate Professor Maria Kazakova is the co-author of a total of 19 teaching aids, of which 10 are after holding the academic position "Associate Professor". She has co-authored 3 undergraduate biology study guides. Associate Professor Kazakova participated in the development and presentation in English of a part of a lecture course on medical biology, preparation of study aids, visualization and conducting of practical exercises in biology and parasitology for medical students of English-language education. In addition, she provides scientific guidance to distinguished students (2), scientific consultant to a graduate student (1), scientific consultant in the preparation and defense of scientific reviews by students (4), guidance to two doctoral students (1 defended and 1 in progress), guidance of medical biology majors (1 acquired major and 1 in course of major).

As an established teacher, Prof. Kazakova was elected as a member of the council for educational and research activities of MU-Plovdiv.

TABLE 2. Study load (in hours) of assoc. prof. Maria Kazakova

Indicator	2020-21	2021-22	2022-23	Average
Auditory employment	310.6	494	688,88	498
lectures	198	164	180	181
exercises	84	164	178	142
exams	48.6	49.1	230.88	110
Scientific work	295	250	360	302
Extracurricular activity	170	70	170	137
TOTAL	805	805	1218.88	943

According to the self-assessment according to mandatory minimum scientometric indicators of MU-Plovdiv for direction 4. natural sciences, mathematics and informatics, Prof. Kazakova has a total of 2,669 points.

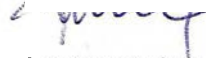
Conclusion

I know Prof. Maria Kazakova as an established scientist and teacher in the field of medical biology. The analysis of the scientific and teaching activity of Associate Professor Maria Kazakova shows that she fully meets the conditions and requirements under Art. 24 of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the qualitative and quantitative criteria for the development of the academic staff, specified in the Regulations for its application at the Medical University-Plovdiv for the occupation of the academic position "Professor".

Proceeding from this, I strongly suggest to the honorable members of the scientific jury to vote positively for the appointment of Prof. Maria Kazakova to the academic position "PROFESSOR" in the scientific specialty "Medical Biology", field of higher education 4. Natural sciences, mathematics and informatics, professional direction 4.3. Biological Sciences, for the needs of the "Medical Biology" department at the Medical University-. Plovdiv.

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Заличено на основание
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