

## OPINION

by Assoc. Prof. Galina Dimitrova Nikolova, Ph.D.  
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member of the scientific jury for the academic position "Associate Professor" (published SG in issue № 14/18.02.2022), approved by the Rector order №P-109/168/14.04.2022 in the field of higher education 4. Natural Sciences, Mathematics and Informatics, with professional field 4.2. Chemical Sciences, specialty "Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Substances" - for the needs of the Chemistry Department, Pharmacy Faculty, MU - Varna with candidate Head Assist Prof Katya Peycheva Ivanova, Ph.D.

### **II. Biographical data and career profile of the candidate**

Head Assist Prof Katya Peycheva Ivanova, PhD was born in Varna and graduated from Sofia University St. Kliment Ohridski in 2007. Since 2008 she has been an assistant in the Chemistry Department, Pharmacy Faculty, Medical University -Varna.

In 2017 she successfully defended her doctoral thesis in the specialty "Bioorganic chemistry, chemistry of natural and physiologically active substances". In 2018, the candidate acquires the academic position of "Head Assistant". Katya Ivanova, PhD has 14 years of teaching experience in the disciplines taught at the Chemistry Department, leading lectures and exercises in Bulgarian and English. She holds the position of academic coordinator of the first year English language training in the specialty Medicine at MU-Varna. She is a member of examination commissions for examination and assessment of the candidate-student exam in Chemistry for admission of students at MU – Varna, and a member for students training in Bulgarian and English. Participates in conducting preparatory candidate student courses in chemistry and preparation of candidate students in the specialties "Medicine", "Dental Medicine" and "Pharmacy" at MU - Varna. The candidate has participated in 8 research projects of national character.

### **III. General description of the materials submitted in the competition**

Head assist. prof Katya Ivanova, PhD has attached a complete set of documents in accordance with the Regulations of the Medical University - Varna.

### **IV. Evaluation of the scientific works of the candidate for overall academic development**

Head assist. prof Katya Ivanova, PhD has significant publishing activity. She is the author of 1 monograph, 8 textbooks, a total of 31 scientific articles, as well as 8 reports and 31 poster presentations.

The candidate participates in the competition with 1 monograph and 12 scientific papers, as follows:

- Monograph with title: Toxic and essential elements in the Black Sea fish. Assessment of the potential health risk for the consumer, 2021, 133 pages, Varna, MU-Varna, ISBN 978-619-221-356-5.
- 12 scientific publications are presented, published in editions, referenced and indexed in the world databases Web of science and Scopus, according to the Academic reference for minimum requirements, 11 of the publications are with IF.
- From the presented 12 scientific publications ch. Head assist. prof Ivanova, is the first author in 5 of them.
- Head assist. prof Katya Ivanova, PhD has 4 awards in national and international scientific events.

In the academic transcript, the candidate's points by groups of indicators that I recognize are: indicator A -50 points, indicator B -100 points, and indicator D -205 points.

#### **V. Evaluation of the monographic work or equivalent publications submitted for participation in the competition**

The candidate has presented a monograph on the topic: "Toxic and essential elements in the Black Sea fish. Assessment of the potential health risk to the consumer". The paper aims to characterize the Black Sea organisms in terms of content of toxic pollutants and nutritional parameters and risk assessment of human health when consumed. The monograph is 133 pages long and contains an introduction, chapter I, chapter II, conclusion and bibliography with used 181 literature sources.

The first chapter examines some of the most commonly studied pollutants and essential elements, their entry, impact and transport in ecosystems, their physical and chemical properties, as well as pharmacokinetic and toxicological aspects. Different analytical methods and techniques used in practice for their determination in samples of marine organisms are compared. In addition, a section on toxic and essential elements in aquatic biota is included, and their exposure to wild populations in the waters of the Black Sea countries is discussed in detail.

The second chapter includes information on the assessment of the risk associated with the consumption of Black Sea fish. Tables systematize the main terms used in risk analysis; permissible intake values and reference doses. The author's own data on weekly intake, non-carcinogenic risk factor (THQ), carcinogenic risk factor (TR) and hazard index (HI) are reviewed and compared with those in the scientific literature and the safety assessment of Black Sea fish is determined as food.

The conclusion summarizes the importance of systematic research, proposes parameters for the introduction of appropriate fish species as indicator organisms of pollution of the Black Sea and provides recommendations for future action on the protection of the Black Sea coast. The monographic work of the candidate is important and applied.

## VI. Citing the candidate's publications

33 citations (66 points) are presented, with which the candidate meets the normative requirements for citing scientific papers. The candidate submits an additional 21 citations (42 points) outside the minimum requirements.

## VII. Evaluation of teaching activities

Since 2008 to date, the candidate conducts exercises and seminars in the compulsory and elective courses Chemistry, General and Inorganic Chemistry and Physical Chemistry with Colloid Chemistry for students majoring in Medicine, Specialty Dental Medicine and Specialty Dental Medicine. From 2019, Head assist. prof Katya Ivanova, Ph.D. participates in the lecture course for students with Bulgarian language teaching. In recent years, Katya Ivanova, Ph.D. has significant classroom employment (average 550 hours/school year). Mentor of student demonstrators at the Chemistry Department, English language training.

## VIII. Critical remarks and recommendations

I have no critical remarks about the candidate. My recommendation is to continue my publishing activity.

## IX. General assessment of the candidate's compliance with the mandatory conditions and the mandatory quantitative criteria and scientometric indicators according to the Regulation for holding the academic position of Medical University - Varna.

Field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.2. Chemical sciences, specialty "Bioorganic chemistry, chemistry of natural and physiologically active substances"

Table 1. Minimum required points by groups of indicators for different scientific degrees and positions Head assist. prof Katya Ivanova, Ph.D.

Group of indicators	Contents	Associate Professor	Head Assistant Professor Katya Ivanova, Ph.D.
A	Indicator 1	50	50
B	Indicator 2	-	
B	Indicators 3 or 4	100	100
Г	Sum of indicators from 5 to 9	200	205
Д	Sum of indicators from 10 to 12	50	66

My complex assessment of the teaching and research activities of Head assist. prof Katya Ivanova, PhD is positive. The candidate meets the mandatory and specific conditions and scientometric criteria of ZRASRB and the Regulations of the Medical University - Varna, to hold the academic position of "Associate Professor".

The materials presented by the candidate in the competition show that Head assist. prof. Katya Peycheva Ivanova, PhD. The presented scientific papers and evidence of scientific activity meet the quantitative and qualitative criteria and show a high contribution nature. I give my positive assessment to the Head assist. prof. Katya Peycheva Ivanova, Ph.D., in the competition and I propose to the esteemed members of the Scientific Jury to award the Head assist. prof. Katya Ivanova, Ph.D. the academic position "Associate Professor" in the field of higher education 4. Natural sciences, mathematics and informatics, professional field 4.2. Chemical sciences, specialty "Bioorganic chemistry, chemistry of natural and physiologically active substances".

16.05.2022г.

Prepared an opinion: .....

/Assoc. Prof. Galina Nikolova, Ph.D./