

## OPINION

from prof. Ginka Atanasova Antova, PhD,  
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on the materials submitted for the competition  
for the academic position of "Associate Professor"  
at Medical University – Varna “Prof. Dr. Paraskev Stoyanov”  
in Area of higher education: 4. Natural sciences, mathematics and informatics  
Professional field: 4.2. Chemical sciences, Specialty "Chemistry“

According to the order of the Rector of the Medical University - Varna No P-109-161/14.04.2022 I was appointed a member of the Scientific Jury, and by Protocol 1 from meeting of scientific Jury I was elected to prepare an opinion on procedure for holding the academic position "Associate Professor" in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.2. Chemical sciences, specialty Chemistry. For the needs of the Faculty of Pharmacy, Department of Chemistry in the State Gazette, issue 14 of 18.02.2022, two competitions for "Associate Professor" have been announced, and for one of them the candidate is Chief Assistant Professor Veselina Zdravkova Panayotova, PhD in Chemistry.

### 1. Brief introduction of the candidate

Chief Assistant Professor Veselina Panayotova, PhD has obtained a Bachelor's degree (2007) and a Master's degree (2009) from St. Kliment Ohridski Sofia University, Faculty of Chemistry and Pharmacy, specialty *Chemistry* and specialty *Modern spectral and chromatographic methods for analysis*. Initially she worked as a chemist at the Department of Chemistry, Faculty of Pharmacy at MU-Varna, since October 2012 she has been an assistant professor, and since 2016 she has been a senior assistant professor at the Department of Chemistry at MU-Varna. In 2015 she obtained the Educational and Scientific Degree *Doctor* in the scientific specialty *Bioorganic Chemistry, Chemistry of Natural and Physiologically Active Substances*. In the period 2016-2019 she acquired an additional postgraduate specialization in *Theoretical foundations of medical chemistry*.

### 2. General description of the scientific production

In the competition for "Associate Professor" Chief Assistant Professor Vesselina Panayotova participates with a total of 31 scientific production, grouped as follows:

- ✓ *Work for the attainment of academic rank – 1 monograph* (Panayotova, V. *Marine phospholipids - sources of long-chain polyunsaturated fatty acids* - Varna, 2021, 177 pages, Medical University - Varna, ISBN 978-619-221-355-8);
- ✓ *15 scientific publications to cover the minimum scientometric indicators* (in journals indexed in Scopus and/or Web of Science, with SJR and IF), of which:
  - in *Bulgarian Chemical Communication* – 7 (Q4, IF<sub>2017</sub>=0,242 and SJR<sub>2017</sub>=0,156, SJR<sub>2019</sub>=0,142 and SJR<sub>2020</sub>=0,179);

- in *Journal of IMAB* – 4 (Q4 - SJR<sub>2017</sub>=0,103, SJR<sub>2019</sub>=0,108, and Q3 - SJR<sub>2020</sub>=0,225);
- in *Egyptian Journal of Aquatic Biology and Fisheries* – 1 (Q4 - SJR<sub>2019</sub>=0,16);
- in *Regional Studies in Marine Science* – 1 (Q2 - IF<sub>2021</sub>=1,624 and SJR<sub>2020</sub>=0,464);
- in *International Journal of Environmental Research and Public Health* – 1 (Q2 - IF<sub>2021</sub>=3,390 and SJR<sub>2020</sub>=0,502);
- in *Natural Product Reseandarch* – 1 (Q2 - IF<sub>2021</sub>=2,861 and SJR<sub>2020</sub>=0,478).

✓ **15 full-text publications outside the minimum scientometric indicators**, of which: 4 scientific publications in the journal *Ovidius University Annals of Chemistry*, included in the ESCI of the Web of Science (without IF and SJR) and 11 articles published in unrefereed scientific peer-reviewed journals or conference proceedings without IF and SJR (non-indexed).

The personal participation of Chief Assistant Professor Panayotova, PhD. in these 30 scientific publications is illustrated by the fact that in 10 (6 of the first group and 4 of the second group) - she is first (33%), in 12 - the second (40%), in 6 - the third (20%) ) and in 2 - the fifth author (7%). In 12 of them she is a corresponding author. The total SJR/IF of the journals in which the candidate has publications is 20.974.

✓ **Citation of scientific production**

For the period 2010 - 2021 the candidate has 120 citations, with excluded auto-citations from all authors. In the competition for "Associate Professor" Chief Assistant Professor Panayotova participates with 27 citations, covering the national minimum requirements of the indicator for citations when holding this academic position (54 points) and with 22 citations, outside the minimum requirements, which are again from scientific journals, referenced and indexed in Scopus and Web of Science (44 points). Of the 49 citations presented, 47 are by foreign authors, which shows that the results presented in scientific publications have been recognized by a number of scientists abroad.

Chief Assistant Professor Veselina Panayotova has met the national minimum requirements of the Regulations for the implementation of the law on the development of academic staff in the Republic of Bulgaria and the requirements of the Regulations for the development of the academic staff of the Medical University - Varna (21.03.2022). The points indicated for each indicator are described in detail and supported by evidence.

**Achievement of the national minimum requirements and the regulations of MU - Varna  
in professional field 4.2. Chemical sciences**

<b>Group of indicators</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>total</b>
National minimum requirements	50	–	100	200	50	–	400
<b>Achievement</b>	<b>50</b>	<b>–</b>	<b>100</b>	<b>210</b>	<b>54</b>	<b>-</b>	<b>414</b>

**3. Teaching activity**

Chief Assistant Professor Panayotova, PhD has experience as a teacher in higher education (3 years 7 months and 16 days - experience as a chief assistant professor from total

teaching experience in the specialty of 13 years 6 months and 1 day), having led exercises and seminars in *Chemistry in Medicine and Dental Medicine - Bulgarian and English language training*, in *Inorganic and Organic Chemistry* and *Analytical Chemistry* in Medical Laboratory Assistant, *Physical Chemistry with Colloid Chemistry* and *Environment and Health* in Pharmacy, as well as **lecture courses** in *Physical Chemistry with Colloid Chemistry* and *Environment and Health* in Pharmacy. Her study load for the period 2016/2017 - 2020/2021 varies from 280 to 560 hours per school year. Chief Assistant Professor Panayotova is a co-author of 7 textbooks with a total volume of 1164 pages, 6 of which are in English, in 5 of them she is the fourth author, in 1 she is the second author, and in 1 she is third author. She has participated in the development of curricula in *Chemistry* for students majoring in Medicine and Dental Medicine - English language training and in the curriculum of Freely Elective Course "*Environment and Health*" for the specialty Pharmacy.

Since 2017 Chief Assistant Professor Panayotova is an academic coordinator of the first year students, majoring in Medicine, English language training. Since 2018 he has been a mentor of six student demonstrators at the Department of Chemistry. She participates in the preparation and organization of the annual "Open Days" for the Bulgarian language program and "University Open Days" for the English language program at MU-Varna. She is a member of commissions for examination and evaluation of the candidate's works in chemistry at the candidate exams of candidates for Bulgarian and English language training at MU - Varna and participates in conducting candidate student courses for preparation of candidate students in chemistry. In support of her qualities as a teacher is also her research and scientific work with students - 4 students are actively involved in the experimental research work of 2 research projects and participate in the preparation and presentation of results at *The Black Sea Symposium for Young Scientists in Biomedicine, Sea and Health Festival, Pharmaceutical Business Forum*, etc.

To improve her qualification she has attended in 8 courses and seminars in our country.

#### **4. Research work**

According to the presented scientific works of Chief Assistant Professor Panayotova, PhD it can be seen that her research interests are in the following three areas: 1) composition and biological/functional activity of marine and freshwater organisms; 2) safety of marine and freshwater organisms and 3) assessment of the risk-benefit ratio for the consumption of Black Sea molluscs.

##### ***Scientific and scientific-applied contributions***

The lipid composition, fat-soluble vitamins, carotenoids and fatty acid composition of Black Sea and freshwater fish, molluscs and algae have been studied. Detailed knowledge of their composition gives valuable practical information about their use as healthy foods or nutritional supplements. The influence of individual fatty acids in the prevention of the development of cardiovascular diseases was assessed by calculating 3 lipid indices and the ratios of  $\omega$ -3/ $\omega$ -6 and Polyunsaturated fatty acids/Saturated Fatty Acids. The seasonal changes and the influence of heat treatment on the lipid composition of marine organisms have been studied and the obtained data are used to enrich the data on biology and ecology, as well as to assess the

nutritional qualities of Black Sea fish, molluscs and algae. Studies have been conducted on the phenolic content and biological activity of algae and mollusc extracts, as well as on the content of vitamin B<sub>12</sub> in Black Sea fish and molluscs. The results obtained provide information on the presence of biologically active compounds that can be used for the development of medicinal products.

The total content of toxic and essential elements in Black Sea and freshwater fish, molluscs and algae was studied, and the safety of Black Sea and freshwater fish and molluscs in terms of the content of toxic elements was assessed. The results obtained for the content of essential and toxic elements and the parameters characterizing the quality of lipids were used to assess the risk-benefit ratio in the consumption of seafood and freshwater products.

Chief Assistant Professor Veselina Panayotova, PhD has participated in a total of 6 projects, in 1 of which at the Research Fund of the Ministry of Education and Science she is the research leader. Indicator for the scientific activity of Chief Assistant Professor Panayotova is also her numerous participations in scientific and international scientific forums (55 in the period 2010-2021), 17 of which are at scientific forums abroad (Romania, Spain, Turkey, the Czech Republic, Germany and Ireland). She has received 3 awards for best poster (1<sup>st</sup> place) at the poster sessions of international conferences in Romania (2012 and 2013) and at the 9<sup>th</sup> National Conference on Nutrition (2018).


Chief Assistant Professor Veselina Panayotova has registered scientific profiles in Google Scholar, Research Gate, ORCID, ResearcherID, eLibrary (reference from the University Library at MU-Varna, attached links).

Chief Assistant Professor Veselina Panayotova is very active in teaching, research and administrative activities. My recommendation to her is to cover research more widely in international specialized journals with an impact factor.

### CONCLUSION

Based on the presented documents and the scientific achievements, I believe that the scientometric data of **Chief Assistant Professor Veselina Zdravkova Panayotova, PhD** fully meet the national minimum requirements for holding the academic position of **Associate Professor**, provided in the Academic Staff Development Act of Republic of Bulgaria and the Regulations for the development of the academic staff at MU - Varna (from 21.03.2022). All this gives me reason to evaluate positively her overall work. I would like to recommend to the esteemed Scientific jury to **propose to the Faculty Council at the Faculty of Pharmacy of MU - Varna to vote for the award of Chief Assistant Professor Veselina Zdravkova Panayotova, PhD** of the academic position **Associate Professor** at MU - Varna in the field of higher education 4. Natural Sciences, Mathematics and Informatics, professional field 4.2. Chemical sciences, specialty Chemistry.

25.05. 2022

Opinion prepared by:  .....

**Prof. Ginka Antova, PhD**