

To

The Chairman of the Scientific Jury,

Appointed by the order No. P-109-437/05.12.2024

of the Rector of the Medical University of Varna

## OPINION

by Assoc. Prof. Dr. Kalin Petrov Kalchev, PhD

*Clinic of General and Clinical Pathology, University Hospital "St. Marina", Varna,*

*Department of General and Clinical Pathology, Forensic Medicine, and Deontology, Medical University "Prof. Dr. Paraskev Stoyanov", Varna*

The present opinion refers to the application of

**Dr. Nadezhda Todorova Stefanova, PhD**

for the academic position of "**Associate Professor**" in the specialty "General and Clinical Pathology" within the field of higher education 7. "Healthcare and Sports", professional direction 7.1. "Medicine", announced in the "State Gazette", issue 85/08.10.2024, with the additional conditions for the competition:

- Candidates must possess a specialty in the healthcare system "General and Clinical Pathology" and
- A PhD degree in the doctoral program "Pathology and Cytopathology".

The competition is for two positions with 0.5 full-time equivalent in the Department of General and Clinical Pathology, Forensic Medicine, and Deontology at the Faculty of Medicine of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, as well as one full-time position for the Clinic of General and Clinical Pathology at University Hospital "St. Marina", Varna.

I have been provided with the full set of necessary administrative documents as required by the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for Holding the Academic Position of "Associate Professor" from the Medical University "Prof. Dr. Paraskev Stoyanov", Varna, as described in the candidate's application to the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov", Varna.

## **I. Career Development of the Candidate**

Dr. Nadezhda Stefanova was born on 10.12.1986 in Pavlikeni.

In 2011, she obtained a Master's degree in Medicine from the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna. In the same year, she started working as a physician at the "Clinic of General and Clinical Pathology" of University Hospital "St. Marina", Varna.

In 2012, she was appointed as a physician-assistant-resident in the same clinic, as a regular assistant at the Department of General and Clinical Pathology, Forensic Medicine, and Deontology at the Medical University "Prof. Dr. Paraskev Stoyanov", Varna, and began specialization in the clinic as well as a PhD program in the department.

In 2018, she defended her dissertation on the topic "Expression of Markers for Autophagy and Necroptosis in Colorectal Carcinoma", earning a PhD degree in the doctoral program "Pathology and Cytopathology", and was reappointed as a senior assistant in the department.

In 2019, she obtained a specialty in "General and Clinical Pathology" and was subsequently reappointed as a physician-senior assistant in the clinic.

From the overview of the candidate's career development, it is evident that she meets the additional conditions for the competition: possession of a specialty in the healthcare system "General and Clinical Pathology" and a PhD degree in the doctoral program "Pathology and Cytopathology".

## **II. Scientometric Indicators of Dr. Nadezhda Stefanova**

Over the years, Dr. Stefanova has published one monograph of 191 pages and 33 scientific articles totaling 242 pages.

The minimum scientometric requirements are met by:

- A dissertation for the acquisition of a PhD degree, contributing the necessary 50 points in indicator A1;
- A habilitation monographic work, contributing the necessary 100 points in indicator B3;
- 22 scientific publications, including 11 in peer-reviewed and indexed journals, and 11 in

non-refereed journals indexed in the Web of Science and Scopus databases, reflecting research activities in the period 2017-2024, accumulating 203.02 points in indicators  $\Gamma 7$  and  $\Gamma 8$  of the academic reference, with a required minimum of 200 points in this group.

Additionally, one more publication in a non-refereed international journal is presented.

- 50 citations and self-citations of Dr. Nadezhda Stefanova in foreign and domestic refereed and non-refereed journals, according to the Google Scholar platform.

For the purposes of the competition, the scientometric academic reference includes four citations in refereed journals of one refereed and indexed article in international databases, contributing 60 points in indicator  $\Delta 10$ , with a required minimum of 50 points.

She has participated in 31 international and national scientific forums, with 23 published abstracts in national forums and four in international ones. The remaining four participations do not include published abstracts.

Dr. Stefanova has been part of the research teams of eight postdoctoral research projects funded by the Science Fund on topics related to modern diagnostic and therapeutic approaches in oncology and pathology.

### **III. Contributions of the Scientific Work of Dr. Nadezhda Stefanova Her research focuses on six main areas:**

1. Alternative molecular mechanisms of cell death and survival
2. Hematopoietic system diseases
3. Rarely diagnosed diseases
4. Experimental morphology
5. Infectious diseases
6. General biological processes

The most significant scientific contributions come from the first research direction, as presented in the dissertation from indicator A1 of the academic report, as well as three publications from indicator  $\Gamma 8$  (No. 3, 7, and 8) and one article beyond the minimum scientometric requirements for holding the administrative position of "Associate Professor." These works explore alternative molecular mechanisms of cell death and cell survival. The contributions in this field have an

original, scientifically innovative, scientific-practical, and scientific-theoretical character, focusing on the significance of the immunohistochemical markers for necroptosis, RIP3 and Beclin-1, in colorectal carcinoma, as well as the role of autophagy in advanced solid tumors.

From a practical perspective, the most significant scientific works for me are those from the second research direction, "Diseases of the Hematopoietic System," where Dr. Stefanova focuses on myeloproliferative neoplasms and morphological changes in bone marrow involvement by non-Hodgkin's lymphoma. This section includes the habilitation monograph from indicator B3, as well as five full-text publications from indicators  $\Gamma 7$ , No. 9 and  $\Gamma 8$  (No. 1, 4, 9, and 10).

The monograph, titled *"Myeloproliferative Neoplasms: Past, Present, and Future,"* has a strong scientific-theoretical and original research character, utilizing materials from the Clinic of General and Clinical Pathology for the study. The full-text publications from indicators  $\Gamma 7$  and  $\Gamma 8$  in this section present original research, such as the study on VEGF expression in newly diagnosed patients and the study on the JAK-2 mutation in 318 patients with Philadelphia chromosome-negative myeloproliferative neoplasms.

The contributions in this field are of scientific-original, scientific-theoretical, and, in my opinion, highly significant scientific-practical value.

In the field of "Rarely Diagnosed Diseases," five articles from indicator  $\Gamma 7$  (No. 1, 4, 6, 7, and 8) are presented. They are primarily of scientific-practical and scientific-applied significance.

In the field of "Experimental Morphology," the highest number of scientific publications is found—four articles from indicator  $\Gamma 7$  (No. 2, 5, 10, and 11), as well as four from indicator  $\Gamma 8$  (No. 6 and 10). These are the result of various experimental studies conducted in collaboration with other university departments and are primarily of scientific-original and scientific-applied significance.

In the field of "Infectious Diseases," one article from indicator  $\Gamma 7.3$  is included, addressing the relevant topic of COVID-19 in 2021. Its contribution is of scientific-practical significance.

In the field of "General Biological Processes," there is also one article—from indicator  $\Gamma 8.2$ —related to the role of the thymus and pineal gland in immunity and aging. Its contributions are of scientific-theoretical significance.

#### **IV. Evaluation of Teaching and Academic Activities**

Dr. Stefanova has a total of 12 years, 8 months, and 14 days of teaching experience as an assistant

and senior assistant at the Department of General and Clinical Pathology of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna. Her teaching workload over the past five years has exceeded the minimum required by the university's regulations.

She teaches "General Pathology" and "Clinical Pathology" in both Bulgarian and English for medical, dental, and pharmacy students.

She is a member of the Bulgarian Medical Association and the Bulgarian Society of Pathology.

### **Conclusion.**

Based on her career development, scientometric indicators, acquired PhD degree, research activities, and teaching experience, Dr. Nadezhda Stefanova fully meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and the regulations of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna for holding the academic position of "Associate Professor".

I declare that I will vote in favor of awarding the academic position of "Associate Professor" to Dr. Nadezhda Stefanova and recommend that the esteemed scientific jury members also support this decision.

24.02.2024

Assoc. Prof. Dr. Kalin Kalchev, PhD

Заличено на основание чл. 5,  
§1, б. „В“ от Регламент (ЕС)  
2016/679