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Review

To the Chairman of the Scientific Jury,

Appointed by Order No. P-109-105/29.01.2025

# REVIEW

**From:** Prof. Dr. Kamelia Tsvetanova, MD, PhD - Head of the Department of "Anesthesiology and Intensive Care", Medical University - Pleven, member of the scientific jury

**Regarding:** Competition for the academic position of "Associate Professor" in the field of higher education 7. "Healthcare and Sports" in the professional field 7.1. "Medicine" and scientific specialty "Anesthesiology and Intensive Care", for the needs of the Department of "KASIM", Medical University - Varna, announced in State Gazette No. 101 of 29.11.2024, with one candidate – Chief Assistant Professor Dr. Petya Marincheva Ivanova, MD

The presented materials for participation in the announced competition are in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and in accordance with the conditions and procedures for occupying the academic position of "Associate Professor", according to the regulations of Medical University - Varna.

The materials are presented as follows: creative autobiography, copies of diplomas for Master's degree and educational and scientific degree "Doctor", copies of acquired specialty in Anesthesiology and Intensive Care, reference for teaching load, certificate of teaching experience, etc. (list - application).

# 1. BIOGRAPHICAL DATA

Dr. Petya Ivanova was born on November 14, 1982, in the city of Varna. She graduated from III PMG "Acad. Metodi Popov" in 2001. She graduated from Medical University "Paraskev Stoyanov" - Varna in 2007. In 2010, she was appointed as a regular assistant professor at the Department of "General and Operative Surgery, Anesthesiology and Resuscitation" through a competition. In 2013, she acquired a specialty in "Anesthesiology and Intensive Care"; - In 2018, she defended a dissertation on the topic "Ultrasound-guided femoral block - a method for analgesia in patients after total knee

replacement" and acquired the educational and scientific degree "Doctor"; Specialty experience - 17 years.

Dr. Ivanova presents a reference for registered scientific profiles in: Google Scholar.

# 2. SCIENTIFIC RESEARCH ACTIVITY

In this competition, Dr. Petya Ivanova, MD, participates with 17 publications in specialized Bulgarian and foreign publications in collections and journals.

A list of participations in scientific forums, qualification courses, seminars, and clinical specializations in Bulgaria and abroad is presented.

Total number of publications:

- 1 dissertation (abstract)
- 1 monograph: "Sepsis. Biomarkers in sepsis" Varna: 2023.
- 17 publications in scientific journals

## 1. Real publications in scientific journals:

I present a distribution of scientific publications as follows:

- 4 in foreign journals
- 13 in Bulgarian journals

Most of the publications are conceptually conceived and implemented by Dr. Petya Ivanova, MD. This is evidenced by the following data, she is:

First author: in 8 of all publications in journals

Sole author: in 2 publications

Subsequent author: in 9 publications

7 of the above-mentioned scientific publications are published in journals that are indexed in world-renowned databases with scientific information (Web of Science and Scopus).

4 publications are in journals with IF. Publications are presented in the following scientific journals: Journal of infection 2014 (IF-8.88), European urology supplements 2013 (IF-3.37), regional Anesthesia and pain management (6.038)

Total IF = 18.288

A full-text publication in scientific journals and collections is also submitted, beyond the minimum scientometric requirements for occupying the position of "Associate Professor":

Application of dexamethasone as an adjuvant to the local anesthetic in the performance of a US-guided femoral block for postoperative analgesia on patients after total knee replacement

PM Ivanova, N Mladenov, A Zanev, VH Platikanov, K Ilieva

Scripta Scientifica Medica 50 (3), 26-33

# 2. Participation in scientific forums

Dr. Petya Ivanova, MD, has participated in national and international scientific forums with posters, video presentations, and verbal presentations.

# 3. Participation in scientific projects

Dr. Petya Ivanova, MD, presents participation in 2 projects: international project "Surveillance, control and management of infections in intensive care units in Southern Europe, Turkey and Iran – a prospective multicenter point prevalence study" and project under the "Science" fund No. 18004 "Assessment of the septic patient. Development of personalized antibiotic regimens and introduction of procalcitonin and NGAL as early and specific diagnostic markers in patients with sepsis, markers for antibiotic treatment and early recognition of acute kidney injury".

# 4. Citations

Total of 113 from the summarized list, of which 4 are in referenced and indexed in world-renowned databases with scientific information.

## **III. TEACHING ACTIVITY**

#### 1. Teaching activity:

Dr. Petya Ivanova is a Chief Assistant Professor in the department and leads exercises and individual lectures, participating in student education in the entire course of pediatric dental medicine. She also leads the training of interns.

The teaching load of Dr. Ivanova for the last five years is as follows:

- for the academic year 2019/20 176 hours;
- for the academic year 2020/21 84 hours;
- for the academic year 2021/22 156 hours;
- for the academic year 2022/23 195 hours;
- for the academic year 2023/24 218 hours.

## 2. Acquired specialties:

Dr. Petya Ivanova has acquired a specialty "Anesthesiology and Intensive Care" in 2013 and holds diploma No. 3327 from 20.03.2014, registration No. 017538

#### 3. Language proficiency:

English (level B2), also has knowledge of German (A2).

#### 4. Contributions

The scientific and clinical contributions of Dr. Ivanova can be systematized in the following directions:

A significant part is related to acute and chronic pain, treatment methods, regional techniques. This work and interests correspond to the topic of the dissertation defended by Dr. Petya Ivanova "Ultrasound-guided femoral block - a method for analgesia in

patients after total knee replacement". I accept the self-assessment of the contributions, namely:

Scientific-theoretical contributions

- 1. For the first time in Bulgarian science and practice, a study was conducted on the US-guided femoral block as a method for postoperative analgesia in patients after total knee replacement.
- 2. The advantages of US-monitored regional anesthesia over standard drug analgesia were presented.
- 3. For the first time in our country, a study was conducted on the introduction of dexamethasone as an adjuvant to PNB, with a view to an alternative to the prolonged catheter technique.

Scientific-practical contributions

- 1. A multimodal algorithm for postoperative analgesia in patients after knee replacement was proposed.
- 2. For the first time in our country, a needle-free perineural catheter Contiplex C type was introduced into clinical practice.

Another part of the scientific interests and research of Dr. Petya Ivanova is focused on patients with severe infections and sepsis; biomarkers in sepsis. The topic of her monograph published in 2023 is "Sepsis. Biomarkers in sepsis", which I believe would be useful for didactic purposes in the training of students, residents, and young doctors in the field of intensive medicine.

The participation of Dr. Petya Ivanova in 2 research projects and publications is also in the field of severe infections, sepsis, and inflammatory biomarkers, which I also believe is a significant scientific-theoretical and scientific-practical contribution, from which the main part of the candidate's citations in the scientific literature comes. The titles of the projects are respectively: 1. International project "Control and management of infections in intensive care units" for the region of Southern Europe 2012-2014. 2. Project under the "Science" fund on the topic "Assessment of pharmacokinetic and pharmacodynamic characteristics of the septic patient. Development of personalized antibiotic regimens and introduction of procalcitonin and NGAL as early and specific diagnostic markers in patients with sepsis and markers for antibiotic treatment."

### **CONCLUSION:**

The presented documents and scientific works of Dr. Petya Marincheva Ivanova, MD meet the minimum scientometric requirements of Medical University - Varna for occupying the academic position of ASSOCIATE PROFESSOR. The scientific production is well presented. The good and correct arrangement of the documentation by Dr. Ivanova is noticeable. She has presented a monograph as an aid for students, young doctors, and residents. The development of a monograph is an indicator of a wide range of scientific interests and depth in interpreting the results. An expression of the candidate's serious scientific research is also the participation in projects and subsequent publications in journals with IF. A large number of the presented articles are in referenced and indexed scientific journals, which proves their high scientific value. The citations in referenced journals are also representative of the evaluation of the developed scientific articles. The candidate is actively involved in the teaching activities of the department in Bulgarian and English, participating with a serious workload in the educational process. Based on the critical analysis of the overall scientific and teaching activity of the candidate Dr. Petya Marincheva Ivanova, participating in the current competition for awarding the academic degree "Associate Professor", in the scientific specialty "Anesthesiology and Intensive Care" for the needs of the Department of "KASIM", Medical University - Varna, I give my positive evaluation and propose to the members of the Scientific Jury to award the position of "Associate Professor" to Dr. Petya Marincheva Ivanova, MD, Chief Assistant Professor at the Department of "KASIM", Medical University - Varna. I confirm that all the requirements of the Law on the Development of Academic Staff and the Regulations for the conditions and procedures for acquiring scientific degrees and occupying academic positions at Medical University - Varna have been observed in the procedure

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

Prof. Kamelia Tsvetanova, MD, PhD