

# **REVIEW**

**BY PROF. DR. NIKOLA YORDANOV KOLEV, PhD, DSc.**

**Head of the Department of General and Operative Surgery**

**Medical University "Prof. Dr. Paraskev Stoyanov" - Varna**

REGARDING: Announcement of a competition for the academic position: "ASSOCIATE PROFESSOR" in the field of Higher Education 7. Health and Sports, professional field 7.1. Medicine in the scientific specialty "Anesthesiology and Intensive Care" one, 0.5 full-time position for the Department of "Anesthesiology, Emergency and Intensive Care Medicine", Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, published in the State Gazette, issue 101/29.11.2024.

In implementation of Order No. R-109-105/29.01.2025 of the Rector of the Medical University - Varna and a decision of the first meeting of the Scientific Jury, held on 03.05.2022, I have been appointed to prepare an official review as an internal member of the Medical University - Varna.

The only candidate in the announced competition for the acquisition of the academic position "ASSOCIATE PROFESSOR" at the Department of "Anesthesiology, Emergency and Intensive Medicine" is Dr. Petya Marincheva Ivanova, PhD. In the electronic reference, in accordance with the current law for the development of the academic body, it is evident that Dr. Ivanova meets the requirements for holding the academic position "Associate Professor". The candidate has submitted all the required documents specified in the regulations for the development of the academic staff of MU - Varna. All other mandatory documents are up-to-date and comply with the requirements.

## **1. BIOGRAPHICAL DATA**

Dr. Petya Marincheva Ivanova was born on November 14, 1982 in Varna. She graduated from the Medical University of Varna in 2007. According to the submitted certificate in the specialty "Anesthesiology and Intensive Care", Dr. Ivanova has 17 years of work experience.

In 2008, she was appointed as a doctor at the Clinic of Anesthesiology and Intensive Care, St. Marina University Hospital, where she specialized and acquired the specialty "Anesthesiology and Intensive Care" in 2013. In 2018, she defended her dissertation on the topic "Ultrasound-guided " femoral block - a method of pain relief in patients after knee joint replacement ."

In addition to the mandatory documents for participation in the competition, Dr. Ivanova has also provided certificates of participation in postgraduate courses for continuing education in Bulgaria and abroad - a total of 9.

She is fluent in English and German.

## **2. SCIENTIFIC DATA**

Dr. P. Ivanova, PhD presents a photocopy, originals of abstracts and full-text publications as follows:

- Dissertation – 1
- Habilitation thesis - 1
  - Publications in journals, refereed and indexed in world-renowned databases of scientific information, of which:
    - issued abroad – 4
    - issued in Bulgaria – 3
      - Publications in non-refereed journals, of which:
        - issued in Bulgaria – 10
- Participations with reports at scientific forums in Bulgaria - 29
- Participations with reports at scientific forums abroad - 22

As an independent author - 4 issues, in co-authorship 19 issues, of which as: first author - in 8 publications second author - in 3 publications third author - in 2 publications fourth author - in 2 publications.

The sum of the IMPACT FACTOR of the journals in which the candidate has publications is 18,288.

## **3. SCIENTIFIC CONTRIBUTIONS**

The main directions in scientific research are related to techniques and methods for influencing acute and chronic pain, regional techniques, and others with severe infections, sepsis, and biomarkers of inflammation.

The established scientific directions are:

1. Acute and chronic pain. Methods and techniques for influencing. Regional techniques.
2. Severe infections. Sepsis. Biomarkers of inflammation.
3. Antibiotic treatment.

I acknowledge the following contributions of Dr. Petya Ivanova, PhD , which are divided into three categories:

## **1. Contributions of the defended dissertation**

### **Scientific and theoretical contributions**

- For the first time in Bulgarian science and practice, a study on ultrasound navigation has been conducted femoral block as a method of postoperative analgesia in patients after knee arthroplasty .
- The advantages of ultrasound -monitored regional anesthesia over standard drug anesthesia are presented .
- For the first time in our country, a study is being conducted to introduce dexamethasone as an adjuvant to PNB, with a view to providing an alternative to the long-term catheter technique.
- Scientific and practical contributions
- A multimodal algorithm for postoperative analgesia in patients after knee replacement surgery has been proposed . prosthetics .
- For the first time in our country, a needle-free perineural catheter – type Contiplex C – has been introduced into clinical practice.

## **2. Contributions of scientific publications**

**DIRECTION 1 :** A significant part is related to acute and chronic pain, treatment methods, regional techniques.

The topic of the dissertation, defended in 2018, is "Ultrasound- guided femoral block - a method for pain relief in patients after knee arthroplasty " . The following contributions are summarized:

### **Scientific and theoretical contributions**

1.3a for the first time in Bulgarian science and practice, a study was conducted on UM - navigation femoral block as a method of postoperative analgesia in patients after knee arthroplasty .

2. The advantages of ultrasound -monitored regional anesthesia over standard drug anesthesia were presented.

3.3a For the first time in our country, a study was conducted to introduce dexamethasone as an adjuvant to PNB, with a view to an alternative to the long-term catheter technique.

### **Scientific and practical contributions**

A multimodal algorithm for postoperative analgesia in patients after knee replacement was proposed. prosthetics .

5. For the first time in our country, a perineural catheter without a needle - the Sopyryukh S. type - was introduced into clinical practice.

**DIRECTION 2** : Another part of the scientific interests and research is focused on patients with severe infections and sepsis; biomarkers in sepsis.

The topic of the monographic work published by me in 2023 is "Sepsis. Biomarkers in Sepsis", which is useful for a didactic purpose in the training of students, residents and young doctors in the field of intensive care medicine.

## **PARTICIPATION IN RESEARCH PROJECTS**

Participation in two research projects and publications are also in the field of severe infections, sepsis, biomarkers of inflammation are also considered to be of significant scientific-theoretical and scientific-practical contribution, of which the main part of my citations in scientific periodicals are. 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 features of the septic patient. Preparation of personalized antibiotic regimens and introduction of procalcitonin and IgAb as early and specific diagnostic markers in patients with sepsis and benchmarks for antibiotic treatment."

## **4. TEACHING AND EDUCATIONAL ACTIVITIES**

The academic workload of Dr. Petya Ivanova, PhD . includes practical exercises in "Anesthesiology and Intensive Care" - students of Medicine Bulgarian and English-language education, 5th year. Her academic workload, according to the submitted report from MU-Varna, amounts to 218 per year for the academic year 2023/2024.

## CONCLUSION

presented by Dr. Petya Ivanova, PhD , and her professional and academic development fully meet the requirements for acquiring the academic position of "ASSOCIATED PROFESSOR", set out in the regulations for the development of the academic staff at the Medical University "Prof. P. Stoyanov" - Varna. Given the indisputable high level of professionalism of Dr. Ivanova, both as a lecturer and an anesthesiologist, I propose that the scientific jury vote positively for her election to the academic position of "ASSOCIATED PROFESSOR".

19.03.2025

City of Varna

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2016/679

Prof. Dr. Nikola Kolev / PhD, DSc .

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