

REVIEW

by Prof. Danail Petrov, MD, PhD, DSc, FETCS, FEBTS

Member of the scientific jury, appointed by Order No. RD-375/25.10.2024 by Prof. Dr. Hristo Bozov, Rector of University "Prof. Dr. Assen Zlatarov," Burgas, to conduct the competition for acquiring the academic position "Associate Professor" in the field of higher education 7. "Healthcare and Sports," professional direction 7.1. Medicine, scientific specialty "Thoracic Surgery."

The competition was announced in the State Gazette, Issue No. 70 / 20.08.2024. For this competition, one applicant submitted documents: Dr. Tanyo Penev Stefanov, PhD. The documents submitted by the applicant comply with the requirements for acquiring the academic position "Associate Professor" as per the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), its implementation regulations, and the Regulations on the Conditions and Procedures for Acquiring Scientific Degrees and Holding Academic Positions at the University "Prof. Dr. Assen Zlatarov" – Burgas.

The submitted documents include copies of diplomas, a professional CV, proof of professional experience, summaries of teaching and research activities, noted citations, an author's report and abstracts on the scientific contributions of the works, a list of publications for participation in the competition, copies of scientific publications, certificates of completed training, participation in congresses and conferences, and memberships in organizations.

I find no omissions in the submitted documentation.

I. Professional Development of the Applicant

Dr. Tanyo Penev Stefanov, PhD, was born on January 19, 1968. He graduated with a medical degree from the Higher Medical Institute - Plovdiv (HMI - Plovdiv) in 1994 (Diploma No. MA 400484/15.11.1994). In 2010, he completed a Master's Degree in "Health Management" (Diploma No. 121/21.04.2010).

Dr. Tanyo Stefanov, MD, began his professional career in 1995 at CSMP-Plovdiv (Kaloyanovo branch). He later served as a surgeon in the First Surgery Department at MBAL Plovdiv (1995–2006), Head of the Thoracic Surgery Department in the Second Surgery Unit "St. Marina" at MBAL Plovdiv (2006–2008), and subsequently as Head of the Second Surgery Unit "St. Marina" at MBAL Plovdiv (2008–2016). Since March 2016, he has been the Head of the Thoracic Surgery Department at MBAL Burgasmed.

Dr. Stefanov holds recognized specialties in General Surgery (certificate No. BS 000220/01.06.2001) and Thoracic Surgery (certificate No. BS 000584/01.06.2004), both issued by the Medical University of Plovdiv. In 2015, he earned a PhD in Thoracic Surgery (Diploma No. 133-DM / 22.06.2015) with his dissertation on "Surgical Management of the Parietal Pleura in Patients with Spontaneous Pneumothorax," defended at the Faculty of Medicine, Medical University – Plovdiv.

As of December 1, 2022, following a competitive selection process, Dr. Stefanov was appointed as an Assistant Professor in the Department of Anesthesiology, Obstetrics and Gynecology, Surgery, Orthopedics, Traumatology, Urology, Neurosurgery, and Emergency and Intensive Medicine at the Faculty of Medicine, Prof. Dr. Assen Zlatarov University.

Dr. Stefanov has completed advanced training in ultrasound diagnostics, video-assisted thoracic surgery (VATS), laparoscopic surgery, transanal endoscopic microsurgery, hepatobiliary, pancreatic, and oncological surgery, as well as conventional fiberoptic

bronchoscopy. In 2007, he underwent a three-month specialization in thoracic surgery at the Otto-Wagner Hospital in Vienna. He is proficient in both Russian and English.

The Candidate is a member of the European Society of Thoracic Surgeons (ESTS), the Bulgarian Medical Association, the Bulgarian Surgical Society, and the Bulgarian Association for Thoracic, Cardiac, and Vascular Surgery.

2. Evaluation of Research, Applied Scientific Work, and Personal Contributions

2.1 General Description of Research Results

For this competition, Dr. Stefanov has presented 16 scientific works, as follows:

- **1 habilitation work:** A co-authored monograph in Bulgarian titled "*Risk Factors for Lung Cancer*" (2019, ISBN 978-619-91261-8-9). According to the contribution protocol, Dr. Stefanov's share is 90.81%, equating to 165 pages.
- **12 publications:** Published in Bulgarian peer-reviewed journals.
- **1 publication:** In an international journal.
- **1 publication:** In the proceedings of an international conference.
- **1 publication:** In the proceedings of a conference in Bulgaria.

Out of the 16 works, 5 are authored solely by Dr. Stefanov (31.25%), he is the lead author in 8 (50%), and a co-author in 3 (18.75%), demonstrating his expertise and capability for conducting independent research. The presented publications are original and aligned with the competition's thematic focus.

According to the *List of Known Citations*, Dr. Stefanov has received 12 citations of his scientific works (excluding self-citations) in peer-reviewed journals.

According to the presented report "Research Projects," Dr. Tanyo Stefanov, has participated in 2 international research projects. I do not accept the provision of tissue material for certain corporate studies as participation in a research project. But, the candidate participated in Phase 3 of a multicentric, randomized, double-blind, parallel-group, and controlled study by Pacira Pharmaceuticals, Inc. titled "Evaluation of the efficacy and safety of intercostal nerve block with liposomal bupivacaine in patients following posterolateral thoracotomy." Although the study was not published due to the inability to prove the significant advantages of this method for postoperative pain relief, the participation itself and receiving a certificate for involvement in such studies are an evaluation of the scientific and practical capabilities of the candidate.

2.2 Profile of Research Activities

The full-text scientific works presented for this competition address significant and timely topics that align entirely with the competition's scope. Dr. Stefanov's research interests primarily focus on various Aspects of Thoracic Surgery, Oncology, and Emergency Abdominal Surgery.

There are notable contributions of a scientific and practical nature.

Surgical Management of the Parietal Pleura in Patients with Pneumothorax

The candidate's sustained interest lies in exploring different methodologies for treating the parietal pleura during the surgical management of patients with pneumothorax. This topic is also the subject of the candidate's dissertation. Dr. Stefanov's publications in this area focus on investigating and improving surgical approaches and therapeutic strategies for treating spontaneous pneumothorax and related

pleural diseases, emphasizing minimally invasive techniques such as video-assisted thoracoscopic surgery (VATS).

The candidate's achievements are primarily focused on:

1. **Video-Assisted Thoracoscopic Surgery (VATS):** Investigating the efficacy and safety of VATS in patients with spontaneous pneumothorax ([Publications 6, 7, and 9]), as well as its role in contemporary thoracic surgery ([Publication 7]).
2. **Modeling Pleural Diseases:** Developing an experimental model for studying pleural adhesions in spontaneous pneumothorax, providing a basis for future clinical applications ([Publication 14]).
3. **Therapeutic and Surgical Strategies:** Analyzing surgical techniques and strategies for treating the parietal pleura and various forms of pneumothorax, including primary and recurrent pneumothorax ([Publications 2, 8, and 9]). An evaluation of therapeutic approaches to spontaneous pneumothorax highlights the evolution of treatment methods ([Publication 5]).
4. **Specific Case Management:** Addressing unique cases such as pyopneumothorax in children ([Publication 15]).
5. **Recommendations and Patient Management:** Proposing strategies for managing pneumothorax patients based on clinical studies and practical experience ([Publications 2, 8]).

Prevention, Diagnosis, and Treatment of Lung Cancer

In this field, Dr. Stefanov's monograph, *Risk Factors for Lung Cancer*, examines and analyzes key factors contributing to lung cancer incidence. The study explores patient attitudes toward these risk factors, emphasizing their critical role in early diagnosis and treatment success. The author highlights the importance of a comprehensive understanding of these factors to improve prevention and disease control.

Given that lung cancer is one of the most widespread oncological diseases globally, this issue is of significant social importance—not only due to its high prevalence but also because of the many uncertainties surrounding its causes and effective treatments. Despite efforts from specialists across various fields, the incidence of the disease has continued to rise in recent decades.

The monograph contextualizes lung cancer within societal responsibility and the need for global efforts to reduce risk factors. It is primarily directed at patients and general practitioners. The author provides valuable information to enhance awareness and motivation for preventive measures, which are essential for reducing morbidity and improving early diagnosis—key to successful treatment.

Publications related to this area include:

1. **Prevention and Public Awareness:** The level of preventive measures, the culture of prevention, and societal attitudes toward lung cancer ([Publications 4, 13]).
2. **Diagnosis and Clinical Aspects:** Modern technologies and approaches for diagnosing lung cancer ([Publication 11]), the clinical presentation of the disease ([Publication 12]), and challenges in diagnostics with false-positive markers ([Publication 4]).
3. **Epidemiology and Etiology:** Examining key risk factors and their impact on the prevalence of the disease ([Publication 10]).
4. **Impact of External Factors on Diagnosis:** Analyzing the influence of the pandemic on diagnostic processes and disease detection ([Publication 1]).

3. Teaching and Educational Activities

Dr. Tanyo Stefanov, PhD, has held an academic teaching position since December 2022. During the past academic year, he has been teaching medical students at "Prof. Dr. Asen Zlatarov" University in Burgas in the discipline of "Surgery." He fulfills the full academic workload as per institutional requirements.

During the period 2008-2016, the candidate supervised 6 residents in general surgery at the Second Surgical Department of MBAL Plovdiv.

4. Overall assessment of the candidate's compliance with mandatory requirements, quantitative criteria, and scientometric indicators

Dr. Tanyo Stefanov, PhD, is applying with a sufficient number of publications in domestic and one international journal, as well as 12 positive citations. The candidate meets the requirements for the academic position of "Associate Professor" in the professional field 7.1. Medicine, for the needs of the Medical Faculty of "Prof. Dr. Asen Zlatarov" University, Burgas.

I did not find publication [6] in the National Reference List of contemporary Bulgarian scientific journals with peer review and do not assign points for it.

Group of Indicators	Content	Fulfillment of the requirements for "Ass.Professor"	Minimum university requirements
A	Indicator 1	50	50
B	Indicator 2		
C	Indicator 3	100	100
C	Indicator 4		
D	Sum of indicators 5 to 9	255	220
E	Sum of indicators 10 to 12	60	60
F	Sum of indicators 13 to end	40	20
Total:		505	450

Dr. T. Stefanov has extensive professional experience, and I evaluate him as a scholar with specific scientific achievements. The candidate is an experienced thoracic surgeon with nearly 34 years of experience, successfully combining his scientific interests with practical medical activities. His contributions to the field of minimally invasive surgery and the treatment of pneumothorax, as well as his research and prevention efforts in lung cancer, demonstrate a high level of professionalism and dedication.

Dr. Stefanov not only develops innovative therapeutic approaches but also actively applies them in clinical practice, integrating scientific research with practical solutions to improve patient care. This combination of scientific approach and practical expertise underscores his competence and significant contribution to medical science and healthcare.

Recommendations

Due to the relatively small number of full-text publications in Bulgaria (12) and abroad (1), focused exclusively on two thoracic surgery issues (pneumothorax treatment and morbidity, risk factors, prevention, and control of lung cancer), I hope that this habilitation will diversify the directions of the candidate's scientific inquiries, particularly in the surgical treatment of lung cancer.

I recommend that Dr. Stefanov make efforts to publish in journals with an impact factor and participate in specialized Bulgarian, European, and World conferences in the field of thoracic surgery, as well as engage in research projects.

Conclusion

Based on the analysis of the scientific, teaching, and medical activities and scientific contributions, it is clear that Dr. Tanyo Penev Stefanov, PhD, is a thoracic surgeon, scientist, and educator with extensive experience.

I consider that Dr. Tanyo Penev Stefanov, PhD, meets the requirements of the Academic Staff Development Act, its implementation regulations, and the Rules for obtaining scientific degrees and holding academic positions at "Prof. Dr. Asen Zlatarov" University – Burgas.

I propose to the esteemed scientific jury that he be awarded the academic position of "Associate Professor" in the field of higher education 7. "Healthcare and Sports," professional field 7.1. Medicine, scientific specialty "Thoracic Surgery," for the needs of the Medical Faculty at "Prof. Dr. Asen Zlatarov" University, Burgas.

27.12.2024
Sofia

Reviewer:
(Prof. Danail Petrov, MD, PhD, DSc)