

## STATEMENT

**PROF. NIKOLAY KIRILOV YARAMOV, DS**

regarding scientific competition for the academic position "professor" in the scientific specialty of Thoracic Surgery in Medical University- Plovdiv

### **I. . Candidate's career profile.**

Candidate in the competition for the academic position of "professor" in "thoracic surgery" at the Medical University - Plovdiv is Assoc. prof. Dr. Ivan Petkov Novakov, DS.

Assoc. prof. Ivan Novakov obtained a diploma for higher education in "Medicine" in 1991 at the Higher Medical Institute - Plovdiv, with excellent results (6.00 - from state exams and an average GPA of 5.62). In 1995, after winning a competition, he became part of the academic staff of the "Special Surgery" Department at the same educational institution (today structured as "Medical University - Plovdiv"). Assoc. prof. Ivan Novakov goes through all levels of his academic development – assistant, chief assistant, associate professor in the same department. From the beginning of 2024, he was elected "head" of the Department of "Special Surgery"

In addition to being an academic teacher, assoc. prof. Novakov has an employment contract with "St. George" UMBAL - Plovdiv, as a clinician in the Second Surgery Clinic of this medical institution.

### **II. General description of the submitted materials for the competition.**

In this competition, documents and materials are presented that are in accordance with the requirements of the law on the development of the academic staff in the Republic of Bulgaria and with the regulations of the Medical University - Plovdiv, as follows:

1. autobiography of assoc. prof. I. Novakov- European format;
2. notarized copies of diplomas for:

- completed higher education with application;
- recognized specialties;
- acquired educational and scientific degree "doctor";
- acquired educational and scientific degree "Doctor of Sciences";
- academic position "associate professor".

3. a certificate of seniority and a reference for the academic positions held to date;
4. academic reference for the study load of Prof. I. Novakov for the years 2021, 2022, 2023 and a copy of the last attestation sheet;
5. a list of the scientific works of Prof. Novakov;
6. attachments with the full text of the candidate's scientific works and their summaries in Bulgarian and English;
7. documents certifying participation of Prof. Novakov in scientific and educational projects;
8. documents certifying training of interns, specialists and PhD students;
9. a reference to the original scientific contributions of Prof. Novakov;
10. reference-self-assessment according to a sample for the fulfillment of the specific scientometric requirements by Associate Professor I. Novakov;
11. declaration of originality and authenticity of the documents attached by the applicant.

### **III. Evaluation of the candidate's scientific works submitted for participation in the competition.**

The total number of publications presented by the candidate is 105, divided into the following several headings:

- the abstract of the thesis of Assoc. prof. Novakov;
- publications in periodical medical press- ninety-five of which 32 in publications referenced and indexed in Scopus and Web of Science and 65 in sources indexed in other databases;
- two chapters of collective monographs;
- two student textbooks;
- four study aids.

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#### **IV. EVALUATION OF SCIENTIFIC PAPERS**

1. Two abstracts are submitted to the competition materials:

1.1. auto-abstract of a dissertation work for the award of an educational and scientific degree "doctor" on the topic "Progression of pleural empyema, determining its surgical treatment (experimental and clinical studies)" in a volume of 61 standard pages;

1.2. abstract of a dissertation work for the awarding of an educational and scientific degree "Doctor of Sciences" on the topic "Pulmonary injury in closed chest trauma: clinical and experimental studies" (volume - 91 pages).

2. Thirty-two (32) publications in scientific publications, referenced and indexed in Scopus and Web of Science, are presented. In 13 of them Associate Professor I. Novakov is the lead author, and in another six he is an independent author. According to the presented list of assoc. prof. Novakov's scientific works, articles numbered 4.1, 4.4 – 4.11, 7.1, 7.5 – 7.20 (a total of 25) are in the field of "thoracic surgery". Various problems are studied: pleural empyema, chest trauma, malignant pleural effusions, spontaneous pneumothorax, lung tumors, diaphragmatic hernias, mediastinal tumors, acute mediastinitis, thoracic complications of COVID-19. The other seven publications in this group are on abdominal emergency surgery and clinical oncology. Publications with numbers from 4.1. until 4.12. (twelve in number) were published in periodical medical publications with a corresponding "impact factor".

A proof of the published materials in Scopus and Web of Science, is the presented by assoc. prof. I. Novakov official reference from the Central Medical Library of the Medical University of Sofia and from the Library and Information Center of the Medical University of Plovdiv.

3. Sixty-three (63) of assoc. prof. I. Novakov's publications are in scientific journals referenced and indexed in other databases (other than Scopus and Web of Science). In 19 of these publications, assoc. prof. I. Novakov is an independent

author, and in 12 he is the lead author. Twenty-five of the publications from this group are in Bulgarian, and 38 in English.

Nine (9), of all the publications presented by Associate Professor I. Novakov are entirely in the field of experimental surgery. They address progression of pleural empyema, mechanisms of pleurodesis, resorptive potential of the pleura, and pulmonary changes in blunt chest trauma. These purely experimental publications are related to the candidate's two successfully completed dissertations.

Nineteen (19) of all publications include medical students in the author team. This shows his active teaching activity.

**4.** Two monographs, in which assoc. prof. I. Novakov is an independent author, are presented to the competition materials.

**4.1.** The monograph "Acute Abdomen" (2020, published by the Medical University - Plovdiv) is 160 pages long. It focuses on the clinical presentation of this life-threatening abdominal pain as well as the relevant pathophysiological mechanisms determining its clinical manifestation. The second part of the monograph, different nosological units included in the section "acute abdomen" are presented. The author examines the possibilities for their diagnosis and treatment. This monographic work is a source of theoretical and practical training for: medical students, surgery interns and other medical specialists interested in the problems of emergency surgery.

**4.2.** The monograph "Blunt Chest Trauma", also published by the Medical University - Plovdiv, was issued in 2019 (volume of 148 pages). The author examines the mechanisms of various thoracic injuries in blunt chest trauma. The types of this damage are also presented, with the treatment possibilities. This monographic work can help in the theoretical and practical training of interns in "Thoracic Surgery" and "Surgery".

## **5. Textbooks and study aids.**

Assoc. prof. I. Novakov has published two textbooks in English. He is the sole author of the textbook "Selected Lectures in Special Surgery", published by the

Medical University- Plovdiv (2017) and co-author of "Questions&Answers in Special Surgery" (2018).

Four study guides in which Associate Professor I. Novakov is a co-author were also published:

- "Experimental models for studying the pleura" (2009),
- «Basic Clinical Procedures» (2009),
- «Guide to Practical Exercises in Surgery» (2011),
- «Guide to Practical Exercises in Surgery – Second Amended and Revised Edition» (2015).

All of the above are a source for the training of medical students in the disciplines "Propaedeutics of Surgical Diseases" and "Special Surgery". They are proof of the active academic career of assoc. prof. Novakov.

#### **IV. Citation of the publications of assoc. prof. I. Novakov in the national and foreign literature.**

103 citations of the scientific works of Associate Professor I. Novakov are presented. 88 of them are in editions published in English and 15 in Cyrillic. Twelve of the presented citations are in national publications, and the remaining 91 are cited by foreign authors. According to the requirements for arrangement in the list of scientific works and for filling out a reference-self-assessment, the citations of assoc. prof. Novakov are divided into three groups:

- citations of his scientific works in publications referenced and indexed in Scopus and Web of Science databases - 72 citations;
- citations in monographs and collective volumes with scientific review in other databases – 28 citations;
- citations or reviews in non-refereed journals with scientific review – 3 citations.

Evidence of the cited scientific work, is the original citation references from the Central Medical Library - Medical University of Sofia, Library and Information Center of the Medical University of Plovdiv, as well as from the Internet platform "Researchgate". The citation index (h-Index) of Assoc. Prof. I. Novakov's scientific works in "Web of Science" is "4", and in the "Scopus" platform it is "3".

## **V. Comprehensive and qualitative evaluation of the teaching-methodical and teaching activity, incl. scientific guidance of students, doctoral students, specialists.**

A report on the study load for the last three academic years of assoc. prof. I. Novakov is presented. The hourly workload, including classroom work (lectures and practical exercises), pre-diploma internship and exams, for each of the three years is over 150%.

Attached to the competition materials is a certificate from the "Postgraduate Education" department of the Medical University - Plovdiv, which proves that Associate Professor I. Novakov carries out theoretical and practical training of specialized doctors in the specialties "Surgery" and "Thoracic Surgery". Assoc. prof. I. Novakov is also the head of the student club at the "Special Surgery" Department. He has organized two scientific forums for students and young doctors. Their joint publications and participation in national and international scientific forums are an expression of the scientific leadership of students by assoc. prof. I. Novakov.

Assoc. prof. I. Novakov was the scientific supervisor of four PhD students. All of them have successfully defended a dissertation on the scientific specialty "Thoracic Surgery".

Assoc. prof. I. Novakov is part of the team of two successfully implemented international scientific and educational projects and one national one (OMNIA project).

## **VI. Scientific contributions of assoc. prof. I. Novakov.**

1. From the documents and materials presented for the competition, I draw a conclusion that assoc. prof. I. Novakov shows great scientific interest in two of the directions of thoracic surgery: chest trauma and pleural pathology. He created an experimental model of pleural empyema, so far unique in our country. Through this model, assoc. prof. Novakov conducts research on various aspects regarding the course, diagnosis and treatment of pleural empyema. Results were published

periodical medical press, as well as were used for the realization of his first dissertation work.

2. For the sake of this competition evidence was also presented that assoc. prof. Novakov, as an experiment, studied the pleurodesis potential of some agents (talc, povidone iodine), as well as the resorptive capacity of the pleura in relation to air from the pleural cavity (pneumothorax).

3. Assoc. prof. Novakov creates an experimental model of blunt chest trauma in small experimental animals. Through this model, he studied the mechanisms of lung and myocardial injury, lung lacerations, and pulmonary hematoma formation. There is no other author in our country who created and published a blunt chest trauma model. Through this model, assoc. prof. Novakov realized his second dissertation work.

4. Assoc. prof. Novakov compares the results of his experimental studies with those in clinical practice. Proof of the importance of his experimental-clinical studies are presented and cited by a number of foreign authors.

5. I also consider the clinical studies by assoc. prof. I. Novakov on the emerging complications of COVID-19 to be a serious scientific contribution. As an independent author and as part of a scientific team, assoc. prof. Novakov published a number of articles on the surgical complications of COVID-19, which reflected his work as a clinician in the diagnosis and treatment of patients with this severe viral pandemic.

## **VII. Assessment of assoc. prof. Novakov's compliance with the mandatory conditions, quantitative criteria and scientometric indicators for occupying the academic position of "professor" at MU-Plovdiv.**

Associate Professor I. Novakov fully meets the mandatory conditions, quantitative criteria and scientometric indicators of the MU - Plovdiv for occupying the academic position "professor". He holds the scientific and educational degree "Doctor of Sciences". He has published two independent monographs and thirty-two (32) publications in publications, referenced and indexed in Scopus and Web of

science, twelve of which have an Impact factor. His scientific work has been cited 72 times in scientific issues, referenced and indexed in publications from the Scopus and Web of Science databases (h-Index, according to a reference from the "Scopus" internet platform - 3 and h-Index in the "Web of Science" platform h-Index - 4).

Assoc. prof. I. Novakov was the supervisor of four PhD students who successfully defended their dissertations. Has a study load of over 150% and the highest final attestation grade.

The total number of points of the candidate, according to the self-assessment table, is 5938.6, with a minimum requirement of 1500.

## **IX. Conclusion.**

In conclusion, I state that Associate Professor Ivan Petkov Novakov meets the mandatory and specific conditions and scientometric criteria for holding the academic position "Professor" of "Thoracic Surgery" at the Medical University - Plovdiv.

Reviewer:

  
**Prof. N. Yaramov, DS**

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