## **STATEMENT**

by Prof. Mariya Negreva, MD, DSc,

Head of the Educational Sector of Cardiology at the First Department of Internal Medicine, Vice-Rector "Career Development" of the Medical University of Varna

**Subject:** Doctoral dissertation for the award of the academic and scientific degree "Doctor" in the doctoral program "Cardiology", professional field 7.1. Medicine, area of higher education 7. Health Care and Sports, on the topic "Acute Coronary Syndrome in Patients with Chronic Obstructive Pulmonary Disease" by Dr. Simona Nikolaeva Yankova

## I. Procedure for announcing the public defense

The dissertation has been discussed and designated for defense before a scientific jury from the Department Council of the First Department of Internal Medicine at the Medical University of Varna (MU – Varna). By Order No. R-109-99/28.01.2025 of the Rector of MU – Varna, I have been selected as a member of the Scientific Jury, and by virtue of Protocol No. 1/03.022025, I have been appointed to prepare an opinion, for which I have received all the necessary documents from the "Doctoral School" department. The prepared opinion is in accordance with the requirements of Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB), the Regulation of the Ministry of Education and Science (MES) for its implementation, and the Regulations for the Development of the Academic Staff (RDAS) of MU – Varna.

# II. Brief biographical data of the doctoral candidate

Dr. Simona Nikolaeva Yankova graduated from MU – Varna with a degree in Medicine in 2016. From 2017 to 2021, she served as an honorary assistant at the Department of Propedeutics of Internal Medicine at MU–Varna. After obtaining her medical license, she worked as an assistant physician in primary and emergency care practices until 2017. Currently, she is a resident in the Cardiology Department at the Dobrich Hospital. In 2022, she obtained a specialty in cardiology.

# III. Scientometric analysis of the publications related to the dissertation

In connection with the procedure, Dr. Yankova has presented 2 full-text articles (1 original and 1 review article) in Bulgarian peer reviewed journals, non-indexed in Web of Science/Scopus. Analysis shows that they meet the minimal scientometric requirements of MU–Varna for the acquisition of the "Doctor" degree.

### IV. Structure of the dissertation

The work contains the mandatory elements of a dissertation. They are logically arranged according to the generally accepted model for the professional field, and therefore I will not list the individual parts. The dissertation is richly illustrated with 43 figures and 20 tables.

#### V. Literature sources

The bibliography contains 501 literary sources, of which 483 are in Latin and 18 in Cyrillic. Its volume exceeds the average volume usually presented for the "Doctor" degree.

## VI. Relevance and significance of the dissertation

The issue under consideration is undoubtedly relevant, as evidenced by the detailed literature review conducted in accessible global medical databases. The dissertation presents data from a large number of sources, with just over 15% of them published in the last 5 years.

## VII. Presentation of the individual parts of the dissertation

The literature review is presented over 37 pages and balances well with the other parts of the dissertation. In it, Dr. Yankova provides a historical overview of ischemic heart disease (IHD) and chronic obstructive pulmonary disease (COPD) and presents epidemiological data and definitions. She emphasizes their pathophysiological mechanisms (both for each disease individually and for those they share) by summarizing data that is well known within the clinical community. She presents definitions, as well as epidemiological, pathophysiological, and pathogenetic data for the most significant comorbidities in patients with acute coronary syndrome (ACS) and COPD, along with the diagnostic and therapeutic characteristics of ACS in the presence of COPD. Despite the adequacy of its volume, the information in the literature review is not convincingly systematized to serve as a natural premise for the stated aim of the dissertation. Clear conclusions from the literature review are lacking, which would have facilitated the understanding of the dissertation.

The aim of the study is formulated as follows: "To analyze the clinical and demographic characteristics, adherence to the prescribed therapy, reasons for repeated hospitalizations, and mortality in patients with ACS and COPD."

To achieve this aim, Dr. Yankova clearly formulated the following objectives:

- 1. To study the risk profile, clinical presentation, and therapeutic management in individuals with ACS accompanied by COPD;
- 2. To compare these patients with a control group of individuals with ACS having similar demographic and clinical characteristics, but without evidence of COPD;
- 3. To evaluate adherence to the prescribed therapy after hospital discharge, particularly treatment with beta-blockers;
- 4. To assess the quality of life in patients with ACS and COPD compared to the control group;
- 5. To determine the reasons for hospitalizations;
- 6. To analyze the clinical and demographic characteristics of patients with ACS who have died.

In the "Materials and Methods" section, the study design, the participants, the criteria for their inclusion and exclusion, as well as the methods of investigation and statistical analysis used are described in detail. Given the high prevalence of IHD and COPD in clinical practice, it is expected that the number of patients studied would be higher. For the assessment of quality of

life, Dr. Yankova used several questionnaires, which is a prerequisite for the reliability of the obtained results. The statistical analyses are described in detail.

The Results and Discussion are presented concurrently, which I undoubtedly support. This approach naturally allows for intertwining the candidate's own results with those of other authors and research teams, thereby refuting or building upon already known data. The results obtained are illustrated with a sufficient number of tables and figures. They are expected to be systematized and presented in a sequence corresponding to the stated objectives, which is not observed in Dr. Yankova's dissertation. A large volume of results is presented, which allows for the achievement of the set objectives. In total, 8 conclusions and 13 contributions have been systematized – 5 of an original nature and 8 of a confirmatory nature, based on the obtained results.

### VIII. Critical remarks regarding the dissertation

These are presented during the analysis of the individual mandatory parts of the dissertation and stem primarily from the specifics of the basic skills that the doctoral candidate is expected to acquire during training, namely the ability to analyze, systematize, and present scientific data – both her own and those of other authors.

### IX. Conclusion

The dissertation of Dr. Simona Yankova on the topic "Acute Coronary Syndrome in Patients with Chronic Obstructive Pulmonary Disease" adheres to the generally accepted structure of a dissertation. The work and its associated publications meet the requirements of the LDASRB, the Regulation for its implementation, and the RDA of MU–Varna. These facts allow me to give a positive evaluation of the dissertation, and I vote in favor of awarding the academic and scientific degree of "Doctor" in the doctoral program "Cardiology" to Dr. Simona Yankova.

May 3rd, 2025

Varna

Signature:

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

/Prof. Manya Negreya, MD, DSc/