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## STATEMENT

**Assoc. Prof. Mihael Emilov Tsalta-Mladenov, MD, PhD**

Associate professor at the department of Neurology and Neuroscience, Faculty of Medicine,  
Medical University “Prof. Dr. Paraskev Stoyanov”- Varna.

**Member of the Scientific Jury, appointed by Order No. R-109-301/25.09.2024 of the  
Rector of the Medical University “Prof. Dr. Paraskev Stoyanov” - Varna.**

Regarding the Dissertation Thesis

**of Rositsa Gancheva Krasteva, MD**

**on the topic:** „Health Related Quality of Life in Patients with Disc Disease“

for the awarding the **educational and scientific degree „Doctor“** in the field of higher

education **7. Health and Sports**, professional direction **7.1. Medicine**, and

the doctoral program **„Neurology“**

**Scientific Supervisor:** Prof. Ara Garabed Kaprelyan, MD, DSC

Based on Order No. R-109-301/25.09.2024 of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, and in accordance with the decision of the Scientific Jury based on Protocol No. 1/06.01.2025, I have been assigned to prepare a statement (in Bulgarian and English) on the dissertation thesis entitled "Health Related Quality of Life in Patients with Disc Disease"

The statement has been prepared in accordance with the requirements of the Law for the Development of Academic Staff in the Republic of Bulgaria and the Regulations for the Development of Academic Staff of Medical University "Prof. Dr. Paraskev Stoyanov"-Varna.

All stages of the doctoral thesis preparation have been fully adhered to, with no changes to the original topic or scientific supervisor. The candidate has submitted all required documents and materials in compliance with the procedural requirements for obtaining the academic degree of 'Doctor,' as stipulated by the regulations of the Medical University 'Prof. Dr. Paraskev Stoyanov' - Varna.

#### **I. Brief Biographical and Professional Data of the Candidate:**

Dr. Rositsa Gancheva Krasteva graduated and obtained a Master's degree in medicine at the Medical University - Pleven in 1997. In 2008, she acquired a specialization in Neurology.

Dr. Rositsa Gancheva Krasteva began her professional career in 1998 as a physician in Emergency Medical Care and SPO at ORB Ruse, where she worked until 2002. From 2002 to 2013, she served as an physician in the First Neurology Department at MBAL-Ruse. Between 2013 and 2014, she worked as an physician in the Cardiology Department at UMHAT "Medica Ruse". Since 2014, she has been the Head of the Neurology Department at UMHAT "Medica Ruse".

Dr. Rositsa Gancheva Krasteva began her professional career in 1998 as a physician in Emergency Medical Care and the Emergency Admission Department in Ruse, where she worked until 2002. From 2002 to 2013, she served as a physician in the First Neurology Department at MBAL-Ruse. Between 2013 and 2014, she worked as a physician in the Cardiology Department at UMHAT "Medica Ruse". Since 2014, she is the Head of the Neurology Department at UMHAT "Medica Ruse".

She actively participates in national and international scientific forums annually. She has completed training in EEG (2009), electromyography (2015) and Doppler sonography (2015).

She is a member of professional and scientific organizations, including the Bulgarian Medical Association and the Bulgarian Society of Neurology.

## **II. Relevance of the Topic:**

Spinal disorders have been increasing in prevalence in recent years, affecting individuals across all age groups. Pain in various regions of the spine is a primary reason for neurological consultations. Among these patients, disc disease is one of the most common causes of pain syndrome. Cervical and lumbar disc herniation are frequent reasons for hospitalization in neurology clinics. Despite ongoing treatment, a significant proportion of patients experience recurrent or chronic pain, which, either independently or in combination with other factors—such as neurological deficits, depressive symptoms, and difficulties in performing daily activities and professional tasks—leads to a deterioration in quality of life.

Conducting a scientific study on quality of life in patients with disc disease, with an in-depth analysis of potential correlations between various factors and health-related quality of life (HRQoL), is of particular interest to neurologists, neurosurgeons, and other specialists. Such research aims to improve the clinical management and care strategies for these patients.

At the time of this study, no other research in Bulgaria has comprehensively examined the relation social, demographic, and neuroimaging factors and the quality of life in patients with disc disease. The present dissertation thesis provides a thorough investigation on the topic, offering a methodological analysis that contributes to the advancement of scientific knowledge in this field.

For these reasons, the chosen dissertation topic is relevant, innovative, and of significant importance for both scientific research and clinical practice.

## **III. Characteristics, Scope and Structure of the Dissertation thesis:**

Dr. Rositsa Krasteva's dissertation thesis spans 178 pages and is illustrated with 94 figures and 31 tables. It is written in Bulgarian, showcasing and excellent proficiency in specialized terminology. The dissertation consists of the following main sections:

### **1. Literature Review (48 pages):**

The literature review is well-structured, comprising ten sections that address various aspects of the topic, including historical background, risk factors, pathophysiology, localization of disc herniations, diagnosis, and treatment. A key focus of the literature review is health-related quality of life (HRQoL), along with different assessment tools for pain, disability, and quality of life in patients with disc disease.

At the end of this section, the most significant conclusions from the literature review are systematically summarized, reflecting a comprehensive analysis of the existing data relevant to the dissertation topic.

The doctoral candidate demonstrates excellent theoretical knowledge and familiarity with the most recent advances in the field.



## **2. Aim, Objectives, and Working Hypotheses (1 page)**

The comprehensive and analytical review of the scientific literature, combined with the candidate's strong expertise in the field, has facilitated the clear formulation of the dissertation's primary research objective—to investigate health-related quality of life (HRQoL) in patients with disc disease and its relationship with disability, pain, and depression.

To achieve this objective, four specific tasks have been defined. These tasks are aligned with the research goal and have been clearly formulated based on existing literature, preliminary studies, and four proposed scientific hypotheses.

## **3. Material and methods (4 pages)**

To achieve the defined research objectives and aim, an observational, cross-sectional clinical study was conducted among patients with disc disease. The study included a total of 120 patients with disc herniation, divided into two groups: 44 patients with cervical disc herniation and 76 patients with lumbar disc herniation.

The inclusion and exclusion criteria for study participants, as well as the methods used to achieve the research objectives, are clearly defined and presented by the doctoral candidate.

The questionnaires used to assess pain intensity, disability, depression, and quality of life are described in the methodology section and included as appendices in the dissertation.

The research was conducted in full compliance with the good scientific practice, following approval from the Research Ethics Committee at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, and informed consent was obtained from all participants.

The statistical methods applied were appropriately selected, including descriptive statistics), graphical methods (visualization of results), and statistical hypothesis testing methods such as ANOVA, Mann-Whitney U test, and correlation analysis.

The chosen and applied statistical methods ensure the reliable processing of the collected data.

## **4. Original Results (64 pages)**

In this section, Dr. Rositsa Krasteva provides a detailed description of her research findings and demonstrates the successful completion of each defined task, directly addressing the primary research objective of her dissertation. The presented results are comprehensive and sufficient to fulfill the research objectives.

The findings are visualized through a large number of figures and tables, accompanied by clear and well-structured explanations. The selection of visual

representations is appropriate and aligned with the applied statistical methods used for the analysis of the collected data.

The results are systematically structured and organized into six subsections:

- Section I – Description of the studied population;
- Section II – Analysis and assessment of pain intensity;
- Section III – Evaluation and analysis of depression levels;
- Section IV – Analysis of the degree of disability;
- Section V – Health-related quality of life (HRQoL) results;

## **5. Discussion (16 pages)**

In this section of the dissertation, Dr. Rositsa Krasteva demonstrates a comprehensive understanding of the available scientific literature related to the research problem. She systematically examines the interrelationships between pain intensity, the degree of disability, and health-related quality of life (HRQoL), emphasizing the importance of a multidisciplinary approach in optimizing the management of patients with disc disease.

The discussion is in-depth, critical, and well-supported by evidence, incorporating clear references to contemporary advancements in the treatment of disc disease and potential strategies for improving therapeutic interventions.

## **6. Conclusions and Contributions (3 pages)**

The dissertation concludes with the formulation of six specific conclusions derived from the conducted research, as well as seven scientific contributions.

The contributions presented in the dissertation are original and hold both theoretical and applied scientific significance.

## **7. References (30 pages)**

The bibliography includes 257 sources, of which 12 are in Cyrillic and 245 in Latin script. A total of 112 sources (43.6%) have been published in the last 20 years, reflecting the relevance and up-to-date nature of the cited literature.

## **8. Publications and Scientific Activities Related to the Dissertation (1 page)**

Dr. Rositsa Krasteva has presented a list of three full-text publications related to her dissertation, in which she is the first author of two of the articles and the second author of one of them. Additionally, she has participated in three scientific conferences, presenting two plenary reports and one oral presentation.

The published full-text articles related to the dissertation fully comply with the regulatory requirements for doctoral candidates' publication activity, as specified in the Law for the Development of Academic Staff in the Republic of Bulgaria and the Regulations for the Development of Academic Staff of Medical University "Prof. Dr. Paraskev Stoyanov"-Varna.

#### **9. Dissertation Thesis Summary**

The dissertation thesis summary is prepared in both Bulgarian and English, comprising a total of 118 pages, including 87 figures and 31 tables. It is structured in accordance with the required standards, and its content fully corresponds to the dissertation thesis.

#### **IV. Critical Remarks**

I have no critical remarks to report.

#### **V. Conclusion**

The dissertation submitted for review is an original work by the author, characterized by scientific novelty, relevance, depth of analysis, and a strong theoretical and applied research contribution.

Dr. Rositsa Krasteva is an outstanding and empathetic neurologist, fully dedicated to her work with patients suffering from various neurological disorders. Throughout her research period, she has demonstrated exceptional diligence, perseverance, and determination, overcoming challenges to successfully conduct and complete a high-quality and in-depth scientific study.

Based on the above evaluation, I confidently give my positive assessment of the presented dissertation work and I propose to the members of the esteemed Scientific Jury to vote positively and award the educational and scientific degree "Doctor" to Dr. Rositsa Gancheva Krasteva in the doctoral program in the scientific specialty "Neurology".

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

10.03.2025

Prepared the statement: .....

Varna

Assoc. prof. Mihael Emilov Tsalta-Mladenov, MD, PhD.