### **OPINION**

by Associate Professor Dr. Vanya Atanasova Boycheva (Birdanova), MD, PhD Department of Hygiene, Medical Ecology, Occupational Diseases, and Disaster Medicine Faculty of Public Health, Medical University – Pleven

**REGARDING:** the public defense of the dissertation for awarding the educational and scientific degree "Doctor" to Dr. Violeta Dimitrova Snegarova, full-time PhD student at the Department of Hygiene and Epidemiology, Faculty of Public Health, Medical University-Varna

# 1. General information about the procedure

By Order № R-109-170/28.03.2025 of the Rector of the Medical University – Varna, I was appointed as an external member of the Scientific Jury for the defense of the dissertation titled: "Effectiveness of a Low-Histamine Diet in Patients with Irritable Bowel Syndrome", submitted for the acquisition of the educational and scientific degree "Doctor" in Higher Education Area 7. "Healthcare and Sports", Professional Field 7.1 "Medicine", PhD Program "Hygiene" (including occupational, communal, school, radiation, etc.), authored by Dr. Violeta Dimitrova Snegarova. The scientific advisor of the dissertation is Professor Dr. Darina Naydenova Hristova, MD, PhD.

The PhD candidate has submitted all documents required under the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Regulations for its implementation at the Medical University – Varna.

## 2. Professional background of the candidate

Violeta Dimitrova Snegarova was born on 08.10.1993. She graduated from the Medical University of Varna in 2018. During her studies, she was a student demonstrator at the Department of Preclinical and Clinical Pharmacology. Since 2020, she has worked consecutively as a physician at SMDL "Laborexpress 2000", and is currently a dietitian at Medicus & MS Sanador Medical Center. She has also been a gastroenterology resident at MHAT–Varna, affiliated with the Military Medical Academy, since that year. She is fluent in French and German. Dr. Snegarova has completed many continuing medical education courses accredited by the Bulgarian Medical Association (a total of 34 credits), including innovative courses relevant to the PhD program in Hygiene. She has completed two specialized online courses through United European Gastroenterology and two hands-on courses in nutrition and dietetics. The PhD candidate is a certified reviewer through the Publons Academy.

### 3. Relevance of the topic

The topic concerning the role of nutrition and various dietary approaches in the management of irritable bowel syndrome (IBS) is highly relevant due to the high prevalence of the condition, particularly among people engaged in modern forms of labor, and its significant negative impact on work capacity and quality of life.

Despite accumulating evidence on the effectiveness of various diets, such as low-FODMAP and the Mediterranean diet, there remains a lack of sufficient research regarding the practical application of a low-histamine diet for IBS, both in terms of clinical practice and in understanding the multifactorial etiology and pathogenesis of the condition. Investigating this diet as a potential therapeutic strategy is timely and necessary, as it may contribute to a more personalized treatment approach and the development of preventive measures and strategies aimed at improving lifestyle and dietary behavior in the at-risk population.

### 4. Structure of the dissertation

The dissertation is 116 standard pages long and includes 30 figures that effectively visualize and accurately present the obtained results. The content is clear, and the structure is logically developed with well-balanced sections organized as follows: introduction - 2 pages; literature review - 30 pages; aim and objectives - 2 pages; materials and methods - 8 pages; results and discussion - 35 pages; conclusions, contributions, appendices - 24 pages. The bibliography includes 135 sources, of which 16 % are from the last five years. The literature review thoroughly covers all relevant aspects of the research topic and logically supports the need for the present study. It discusses epidemiology, diagnostic criteria, classification, etiology, pathogenesis, and pharmacological and dietary treatment approaches in IBS. Pathophysiological mechanisms related to alterations in the gut microbiome, stress and anxiety levels, visceral sensitivity, the role of histamine and serotonin, and food intolerances are also explored. The aim of the dissertation is clearly stated: to evaluate the effectiveness of a low-histamine diet in patients diagnosed with IBS according to the Rome IV criteria and compare it with the low-FODMAP and Mediterranean diets.

The objectives are formulated and sufficient to achieve the study's aim. The sample included 120 patients (75% women) aged 18–50 years, which is representative of current epidemiological trends and allows for objective and reliable conclusions.

The methods used are appropriate and ensure sufficient information for the study's goals. Validated questionnaires were used to assess stress (PSS-4), anxiety (GAD), IBS severity, and quality of life. Comparative evaluation of the three diets was carried out through both documentary and clinical methods. Modern statistical methods and methodological approaches were used to process and analyze the results.

The findings are competently discussed, leading to 10 main conclusions, which I fully accept. These conclusions align with the study's objectives and highlight its major scientific contributions. The study design is well-planned and successfully executed.

### 5. Contributions of the dissertation

The contributions are well-formulated and derived from the conducted study. Dr. Snegarova has identified 5 original scientific contributions and 5 confirmatory and practical contributions, which I fully accept. The demonstrated effectiveness of the low-

histamine diet and the dynamics of stress levels in IBS patients are of high scientific value

#### 6. Publications related to the dissertation

Dr. Violeta Snegarova has submitted two full-text scientific publications related to the dissertation.

### 7. Abstract of the dissertation

The abstract complies fully with the official requirements and accurately summarizes the research conducted by the PhD candidate.

**In conclusion,** the dissertation submitted by Dr. Violeta Dimitrova Snegarova contains scientific and applied contributions to the field and fully meets the requirements for awarding the educational and scientific degree "Doctor."

Based on the above, I vote positively and recommend that the esteemed Scientific Jury also vote in favor of awarding the degree of Doctor in the PhD program "Hygiene" (including occupational, communal, school, radiation, etc.) to Violeta Dimitrova Snegarova.

Respectfully,

Заличено на основание чл. 5, §1, 6. "В" от Регламент (ЕС) 2016/679

May 12, 2025

Assoc. Prof. Dr. Vanya Boycheva (Birdanova), MD, PhD