

STATEMENT

by **Assoc. Prof. Silviya Pavlova Nikolova, PhD**
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Member of the **Scientific Jury** appointed by Order No. R-109-503/10.12.2025 of Prof. Dr. Dimitar Raikov, M.D. – Rector of the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna, pursuant to the decision of the Faculty Council of the Faculty of Public Health (Protocol No. 53 of 03.12.2025) and in accordance with Report Ref. No. 102-3014/27.11.2025 submitted by Assoc. Prof. Dr. Natalia Usheva, M.D. – Head of the Department of Social Medicine and Health Care Organization.

Subject: Procedure for awarding the educational and scientific degree “Doctor” in the field of higher education: 7. Health and Sports, Professional field: 7.4. Public Health, Specialty: Public Health Management.

Author of the dissertation: Deyana Ivanova Ilieva

Title of the dissertation: “Surveillance and Control of Healthcare-Associated Infections – Contemporary Challenges”.

Pursuant to Protocol No. 1 of the first meeting of the Scientific Jury held on 16.12.2025, I was appointed to prepare this statement. The statement is based on an analysis of the documents submitted by the candidate (as described in the Application to the Rector of the Medical University – Varna) and is prepared in compliance with the requirements of the Act on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Implementation, and the Regulations for the Development of the Academic Staff of the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna. The documentation includes a declaration confirming registration of profiles in scientific databases (ORCID, Google Scholar and ResearchGate), which is consistent with good academic practices for transparency and traceability of research activity.

Biographical data and career development of the candidate

The dissertation of Deyana Ivanova Ilieva entitled “Surveillance and Control of Healthcare-Associated Infections – Contemporary Challenges” is submitted for awarding the educational and scientific degree “Doctor”. The study addresses a topical and socially significant issue related to the organization of systems for prevention, surveillance and control of healthcare-associated infections (HAIs), as well as the challenges posed by antimicrobial resistance and crisis situations such as the COVID-19 pandemic.

Deyana Ivanova Ilieva has demonstrated consistent and purposeful professional development in the field of public health and hospital infection control. She has been a full-time PhD student at the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna from 2020 to the present day. Her professional experience is closely linked to the practical hospital healthcare system; since 2007 she has been working at St. Marina University

Hospital – Varna, where she performs activities directly related to sanitary control and the implementation of infection prevention and control measures within the healthcare facility.

In her professional practice, the candidate has also developed competencies in areas of substantial importance for effective HAI control, including disinfection, disinsection and deratization activities (DDD). The experience accumulated in real hospital conditions provides a solid practical foundation for the dissertation research and supports the formulation of applicable conclusions and recommendations aimed at improving the quality and safety of healthcare services.

From an educational perspective, Deyana Ilieva has interdisciplinary training and targeted qualification in public health. During 2016–2018, she completed a Master’s programme in “Protection and Control of Public Health” at the Medical University – Varna. Her professional profile and academic preparation are logically connected to the research topic and contribute to the in-depth examination of the organizational and epidemiological aspects of HAI surveillance and control.

There is a clear link between the candidate’s professional biography and the selected dissertation topic. Her long-standing practical experience in a hospital environment, combined with a specialized interest in sanitary control and measures to reduce infectious risk, adds value to the dissertation and ensures its practical orientation toward the real challenges of the contemporary healthcare system.

Assessment of the structure and content of the dissertation and the dissertation abstract

The dissertation by Deyana Ivanova Ilieva on “Surveillance and Control of Healthcare-Associated Infections – Contemporary Challenges” is structured into four chapters and comprises 176 pages. It is illustrated with 15 tables, 47 figures and one appendix. The bibliography includes 300 references—14 in Cyrillic and 286 in Latin script—which demonstrates the author’s excellent familiarity with contemporary scientific literature and international policy documents relevant to the topic.

The submitted dissertation abstract corresponds to the content and structure of the dissertation and accurately reflects the main elements of the research—relevance of the problem, aim, objectives, hypotheses, methodology, results, conclusions and contributions. The abstract presents the logic of the study clearly and provides a comprehensive overview of the scientific concept, the approaches applied and the significance of the results obtained.

The dissertation is highly relevant and of considerable practical importance, as it addresses one of the most serious problems in modern hospital medicine and public health—healthcare-associated infections (HAIs)—including in the context of antimicrobial resistance and the impact of COVID-19 on the organization and epidemiological characteristics of infectious risk. The study is focused on a real surveillance and control system in a large healthcare institution, which gives the work a clear applied orientation and enables the findings to be used for management decisions and optimization of practice.

The methodology is well substantiated and appropriate to the stated aim. The study is conducted as a retrospective epidemiological investigation over a 10-year period (2013–2022) in a multi-specialty university hospital. The author analyzes data on HAI incidence, clinical and etiological structure, distribution by hospital units and high-risk wards, as well as the relationship between infectious morbidity and the antimicrobials used. A positive

impression is made by the use of a modern methodological framework and internationally accepted definitions and criteria (including ECDC), as well as by the rigorous statistical processing of the data.

On the topic of the dissertation, the candidate has presented two scientific publications that reflect key aspects of the study, related to surveillance, control and infection prevention and control practices in the context of the COVID-19 crisis and the use of disinfectants/antiseptics.

The results and contributions of Deyana Ilieva's work stand out for their realism, applicability and managerial orientation. Particularly valuable is the long-term analysis of trends in HAI incidence in a multi-specialty hospital setting, as well as the assessment of changes during the pandemic period, when organizational flows and infection prevention and control regimes faced new challenges. A significant contribution is also the systematization of the clinical forms of HAIs and their etiological agents, which is essential for planning effective measures to limit in-hospital transmission and to optimize antibiotic policy. The work also has strong practical relevance through the development of a framework for an integrated HAI management model, which may support healthcare institutions in improving internal programmes for surveillance, prevention and control, staff training, and organizational development.

Main scientific and applied contributions:

- Assessment of trends in HAI incidence over a 10-year period in a multi-specialty university hospital;
- Analysis of the clinical and etiological structure of HAIs as a basis for optimizing control measures;
- Assessment of the impact of COVID-19 on the organization, risks and frequency of HAIs;
- Proposed framework for an integrated HAI management model.

My personal impressions of Deyana Ivanova Ilieva's research work are that she approaches her tasks in an organized, precise and responsible manner, demonstrates in-depth knowledge of the subject matter, and is able to link scientific analysis with the practical needs of the hospital system. The dissertation reflects strong professional motivation and a clear commitment to improving infection prevention and control in healthcare facilities—an essential aspect of patient safety and the quality of medical care.

Conclusion

Having reviewed the dissertation, the scientific publications related to the dissertation topic, and the originality and significance of the scientific and applied contributions, and taking into account that the candidate meets the minimum scientometric indicators set out in the Regulations for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria, I give a POSITIVE ASSESSMENT regarding the awarding of the educational and scientific degree "Doctor" to Deyana Ivanova Ilieva. The submitted dissertation is relevant and practically significant, as it provides an in-depth analysis of the surveillance and control of healthcare-associated infections and formulates conclusions and recommendations with direct applicability to improving the quality and safety of healthcare services. The work contributes to the enhancement of hospital practices for the prevention and control of HAIs and has the potential for long-term positive impact

on the organization of infection prevention and control measures and the management of infectious risk in healthcare institutions.

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

26.01.2026

Member of the Scientific Jury:

Varna

/Assoc. Prof. Silviya Nikolova, PhD/