

PEER REVIEW

Regarding:

Conducting a procedure for the official defense of the doctoral thesis of Dr. Radostina Bozhidarova Gencheva on the topic "PREVALENCE OF PIK3CA-MUTATIONS AND RESPONSE TO FIRST-LINE ENDOCRINE THERAPY IN A POPULATION OF BULGARIAN PATIENTS WITH HR(+) HER2(-) MATASTATIC BREAST CANCER" for acquisition of the educational and scientific degree "Doctor" in the doctoral program "Oncology" in the field of 7. " Healthcare and Sports" as an independent doctoral student at the Department of Oncology, Faculty of Medicine, Medical University- Varna.

By Order No. R-109-96/12.02.2026 of Prof. Dr. Dimitar Ivanov Raykov, MD, Rector of the Medical University – Varna, I have been selected to prepare a peer review.

Prepared the peer review:

PROF. DR. IGLIKA MIHAILOVA, MD

Deputy Director of Diagnostic and Therapeutic Activities

Head of Radiation Therapy Clinic

University Specialized for Active Treatment" Prof. Ivan Chernozemski"-
Sofia.

Dear members of scientific jury,

Dr. Radostina Gencheva was born on 13.06.1982 and graduated in medicine from the Medical University – Sofia in 2008. In 2009 she was enrolled as a resident in specialty of Hematology at SBALHZ Sofia, where she worked until 2012. After that, she moved to Germany, where she worked at the Evangelical Hospital in the city of Hamm in 2013. In 2015 she moved to the City Hospital of Solingen and became resident in the Clinic of Gastroenterology, Oncology and Internal Medicine. In 2018 she returned to Bulgaria and was appointed as a resident at the Oncology Clinic of Nadezhda Hospital in Sofia. In 2022 she obtained a specialty in Medical Oncology. She is fluent in German and English. She is member of ESMO, BAMO, and The Bulgarian and German Medical Associations.

The scientific supervisor of the doctoral student is Assoc. Prof. Dr. Eleonora Dimitrova - Gospodinova, MD.

The scientific work presented to me for review contains 115 pages and is illustrated with 6 tables and 29 figures. The bibliography includes 266 literary sources, all in Latin script.

The main text contains introduction – 2 pages, literature review – 49 pages, aim and objectives – 1 page, materials and methods – 9 pages, results – 14 pages, discussion – 3 pages, conclusions – 1 page, contributions – 1 page, bibliography 27 pages.

The dissertation is prepared and structured in accordance with the requirements established in the country, as outlined in Law on Development of the Academic Staff in the Republic of Bulgaria.

At the beginning, the abbreviations used in the scientific work and the table of contents are presented, which facilitates reading the work. The

introduction is brief and clear, containing the main aspects addressed in the chapters of the dissertation. In the literature review, sources revealing epidemiological, diagnostic, therapeutic, and prognostic factors in patients with breast carcinoma are analyzed in depth. The conclusion and the findings from the literature review point to the essence of the present scientific study. The objective is precisely formulated and corresponds to the theme of the dissertation. There are six tasks, and they align with the established objective.

The material was collected from three clinics – MBAL “Nadezhda” Sofia, UMBAL “St. Marina” Varna and MBAL “Acibadem City Clinic – Tokuda” Sofia.

The methods are correctly and precisely chosen to achieve the set goal and objectives.

The statistical methods used include:

- Propensity matchings core
- Descriptive analysis
 - Mann–Whitney U –test
 - χ^2 -тестът (Chi-square test)
- Kaplan-Meier analysis
 - Log-rank test
 - Cox proportional-hazards regression model.

For the statistical analysis, SPSS version 23 and EZR were used

The material and the methods used allow for precise and concrete conclusions to be drawn and for the contributions of the dissertation to be outlined.

In the chapter “Results”, Dr. Radostina Gencheva presents her own data from the study on 250 patients. The description of the results

corresponds to the objectives set and is supported by extensive graphical and tabular material.

In the chapter "Discussion", the author demonstrates the ability to thoroughly analyze, synthesize, and summarize her own results, and to draw logical conclusions. The research and analyses conducted by Dr. Radostina Bozhidarova Gencheva have practical value and show that the treatment of patients with metastatic breast carcinoma depends on numerous prognostic factors, which are analyzed in detail in the dissertation.

The conclusions are seven in total and reflect the results obtained. They are logical and analytical characteristics.

I accept the four contributions that have been outlined, summarized in two directions: with an original character and a scientific – applied aspect. Most of them are unique, having been researched and established for the first time in the country.

The abstract contains the main chapters of the dissertation and is written on 51 pages. In connection with the dissertation, 5 publications and 2 participations in scientific forums with summaries have been made. The review shows that the scientific activity of Dr. Radostina Bozhidarova Gencheva fully meets the evaluation criteria for the defense of the educational and scientific degree of "Doctor" at the Medical University Varna.

Everything that has been said gives me reason to claim that the present scientific work is relevant, of high priority, with practical contributions, and unique in its essence. I am confident that the assessments, conclusions, and contributions made in the dissertation will find application in clinical oncology practice in the country. In conclusion, I

can say that the topic is suitable for s dissertation, the methods used are adequate for achieving the set goals and objectives, the results are significant and well reflected in the conclusions drawn, and the contributions are substantial.

The scientific work submitted to me for peer review:
“PREVALENCE OF PIK3CA-MUTATIONS AND RESPONSE TO FIRST-LINE ENDOCRINE THERAPY IN A POPULATION OF BULGARIAN PATIENTS WITH HR(+) HER2(-) MATASTATIC BREAST CANCER” by Dr. Radostina Bozhidarova Gencheva possesses all necessary qualities of a doctor dissertation. I hold in high regard the research submitted to me for review and recommend to the esteemed members of scientific jury to vote positively for awarding the educational and scientific degree of Doctor to Dr. Radostina Bozhidarova Gencheva.

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

Prof. Dr. Iglia Mihailova, MD