To the Chairman of the Scientific Jury according to Protocol No. 1/03.10.2023. and Order of the Rector No. R-109-411/27.09.2023 of the Medical University - Varna

## **STATEMENT**

for a dissertation for the award of the degree of Doctor of Science
in the scientific specialty "Urology" to Assoc. Prof. Dr. Tosho Yordanov Ganev, MD,PhD
Medical University - Prof. Dr. Paraskev Stoyanov - Varna, Faculty of Medicine,
Department of Surgical Diseases

On the topic "Multimodal strategy for the treatment of high-risk prostate cancer."

By Assoc. Prof. Plamen Milchev Chernopolsky, MD,PhD
Faculty of Medicine, Department of Surgical Diseases
Medical University "Prof. Dr. Paraskev Stoyanov" – Varna

The submitted dissertation of Assoc. Prof. Dr. Tosho Ganev, Ph.D. is in a form and volume that meets the requirements of the Law on Research and Development, the Regulations for its application and the Regulations of MU - Varna. The dissertation was discussed, accepted and directed for defense by the Departmental Council of the Department of Surgical Diseases at MU - Varna.

Biographical data and career development. Assoc. Prof. Dr. Tosho Ganev MD, PhD was born in 1963 and graduated in 1993 from the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, specialty "Medicine". He obtained a specialty in urology in 1999. Since 1998 he has been appointed Assistant Professor and since 2008 Chief Assistant Professor at the Department of Surgical Diseases, Board of Urology at Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, since 2013 he has been Associate Professor and since 2017 Head of the Board of Urology. In 2009, he obtained his PhD. He has held numerous specializations in Bulgaria and

abroad, regular participation in congresses, principal investigator in more than 20 research projects.

The dissertation work of Assoc. Prof. Dr. Tosho Ganev, MD, PhD deals with a topical and important problem related to the second most common cancer in men worldwide. Based on the obtained results, Assoc. Prof. Tosho Ganev, MD, PhD evaluates the incidence of prostate cancer and analyzes the incidence, mortality and survival rates. Because of the analyses and tasks performed, a diagnostic and treatment algorithm for the management of patients with high-risk prostate cancer with real application in clinical practice was prepared.

**Material and Methods**: The dissertation of Prof. Tosho Ganev, MD is based on a retrospective, single-center study, which included 871 patients; inclusion criteria used - radical prostatectomy, radiotherapy or hormone therapy.

**Methodology of the study**: the main aim of the dissertation was "analysis of multimodal treatment of high-risk prostate cancer".

For the optimal solution of the main aim, the author has defined 6 tasks, which are well formulated and the development of the dissertation follows their logical solution.

As the subject of the dissertation, the dissertant has performed a retrospective analysis of 871 patients with high-risk prostate cancer who were hospitalized and treated at the Clinic of Urology of St. Varna for a period of 16 years - 1996 to 2022. The patients were divided into two groups - control and high risk. In the high-risk group, patients were evaluated according to the method of treatment.

**Methods:** Gleason score, patient age, prostate volume, PSA values, stage of disease, time to metastasis, treatment, survival, and lethality were taken into account. Risk group analysis was performed in terms of overall survival, double and triple therapy of patients. Analysis of clinical and biochemical progression was performed. Five major predictors of cancer mortality were examined. For the interpretation of the obtained data, the dissertant has used statistical analysis - IBM SPSS version 26, Shapiro-Wilk and Kolmogorov-Smirnov test, comparison of categorical variables by X2 Pearson/ Fisher's exact test, non-parametric tests of Mann-WhitneyU and Kruskal-Wallis H.

Results obtained: are well presented textually and graphically illustrated by tables and figures. The statistical treatment used is adequate, making the discussion thorough and well systematized. Associations between type of therapy and survival are carefully analyzed, a statistically significant association between the occurrence of clinical progression and the survival period to the occurrence of clinical progression is found, and prognostic criteria for survival are established. It is in the analysis of these results that the dissertator's good knowledge and extensive clinical experience.

**Conclusions:** the dissertation's conclusions on the topic of the scientific work are 7 in number and are based on the overall analysis of the information on the literature review, clinical material, analysis and discussion of own results. They are well formulated and reflect an essential part of the analyzed sections. They are of scientific and practical value.

**Contributions.** The contributions of the dissertation work made by Dr. Tosho Ganev, PhD, are 7 in total, which are of scientific, applied and confirmatory nature.

**Conclusion:** I believe that the dissertation work of Assoc. Prof. Dr. Tosho Ganev, MD, Ph.D. "Multimodal strategy for the treatment of high-risk prostate cancer" is complete, thorough, modern, well formed and properly structured. The objectives are clearly, precisely and comprehensively formulated and executed. The conclusions, contributions and proposed algorithm will be useful for hospital and pre-hospital practice.

The dissertant has provided all the necessary documents that meet the requirements of the Law for the Development of the Academic Staff of the Republic of Bulgaria and the Regulations for the Development of the Academic Staff of MU - Varna for the award of the degree of Doctor of Science.

All this gives me reason to recommend to the esteemed members of the Scientific Council to vote positively and to award to Assoc. Prof. Dr. Tosho Ganev, MD, PhD the scientific degree of Doctor of Sciences in the scientific specialty of Urology.

27.10.2023 г.

Varna

With respect:

Assoc. Prof. Plamen Cherropolsky, MD Ph.D