REVIEW

of Assoc. Prof. Dr. Tosho Yordanov Ganev, MD.

In connection with an announced competition for the position of Academic *Professor*, Higher Education Area 7. "Healthcare and Sports" in the professional field 7.1. *Medicine* and scientific specialty "Urology" for the needs of the Department of Urology of the Ministry of Health, Urology Clinic at the University Hospital "St. Marina" at the University of Medicine - Varna.

by Prof. Dr. Marincho Ivanov Georgiev, MD.

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1. Information about the procedure:

Following a decision by the Faculty and Academic Council of MU - Varna, the competition for the position of *Professor* in the specialty "*Urology*", Professional field 7.1. *Medicine*, field of higher education 7. Health and Sports, was announced in the Official Gazette - issue 15 / 21.02.2025.

By decision of the Financial Supervisory Board of the Ministry of Finance (protocol No. 38/14.04.2025) and Order of the Rector of MU - Varna (No. R-109-203 of 16.04.2025), I have been appointed as an external member of the Scientific Jury for MU-Varna.

By Minutes No. 1 of the first meeting of the National Council, I have been appointed to prepare an official review.

Only one candidate has submitted documents to participate in the competition for AD "Professor" - Assoc. Prof. Dr. Tosho Yordanov Ganev, MD.

I received all the necessary documents to prepare the review.

My review is in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria (LAADRB), its Implementing Regulations and the Regulations of MU - Varna.

2. Professional details of the candidate:

Assoc. Prof. Dr. Tosho Yordanov Ganev was born on November 24, 1963.
Graduated from Medicine at the Medical University of Varna in 1993 – Diploma series A93/

No. 004934.

1994 – 1999 – urology resident, Urology Clinic, St. Anna Hospital – Varna.

1999 - acquired a specialty in urology

1998-2001 - Assistant Professor, Urology, Department of Surgical Diseases, Medical University "Prof. Dr. Paraskev Stoyanov"

2001-2008 - Senior Assistant Professor, Urology, Department of Surgical Diseases, Medical University "Prof. Dr. Paraskev Stoyanov"

2008 - Chief Assistant Professor, Urology, Department of Surgical Diseases, Medical University "Prof. Dr. Paraskev Stoyanov"

In 2008, he defended his dissertation "Research and optimization of hormone therapy for prostate cancer" at the Medical University of Varna, for which he was awarded a Diploma for the educational and scientific degree "Doctor", Medical University "Prof. Dr. Paraskev Stoyanov" (№32814/13.01.2009)

In 2013 - he held the title of Associate Professor, specializing in Urology,
Department of Surgical Diseases, Medical University "Prof. Dr. Paraskev Stoyanov"
Since 2017, he has been the Head of the Urology Department, Department of
Surgical Diseases, Medical University "Prof. Dr. Paraskev Stoyanov"

In 2023 – defends a dissertation "Treatment of high-risk prostate cancer" for the award of the National Council "Doctor of Sciences", in the specialty of Urology, Department of Surgical Diseases., Medical University "Prof. Dr. Paraskev Stoyanov" (№634-21.12.2023)

Since **2024**, he has been the head of the Department of Urology at the Medical University "Prof. Dr. Paraskev Stoyanov"

Since **2025**, he has been the head of the Urology Clinic of the University Hospital "Sveta Marina" in Varna.

Assoc. Prof. Dr. Tosho Yordanov Ganev, MD, PhD has numerous <u>postgraduate</u> <u>qualifications and courses</u> in leading European centers:

2003 - Course "Endourology"

2007 - acquired legal capacity in Highly Specialized Activities in Medicine: Biopsies under ultrasound control in urology, ureteroscopy, cystoscopy.

2008 - acquired legal capacity in Highly Specialized Activity in Medicine: Endourological Methods for the Treatment of Urolithiasis

2008 - acquired legal capacity in Highly Specialized Activity in Medicine: Endoscopic and Percutaneous Treatment Methods in Emergency Urology

2009 - specialized course "Laser treatment of the prostate" - Germany

- **2009** course "Percutaneous nephrostomy and litholapapsy, ureterorenoscopy Patras, Greece"
 - 2011 Laparoscopy course, Medical University of Pleven
 - 2011 course "Advanced Reconstructive Surgery of the Pelvic Floor", Germany
- 2024 Acquired the ability to work with a robotic system at CMR Versius 2025- Acquired the ability to work with a robotic system Da Vinci Xi surgical system

Assoc. Prof. Dr. Tosho Yordanov Ganev is a member of the Bulgarian Urological Society and the European Urological Society.

3. Assessment of quantitative and qualitative scientific indicators:

(for

- 2

<u>Scientometric indicators</u>
participation in the competition for AD "Professor")

- Dissertation for the ONS "Doctor" 1
- Habilitation thesis monograph
 1
- Dissertation for Doctor of Medical Sciences

- 1

- Publications in refereed and indexed
 in world-renowned scientific journal databases
- Publications in non-refereed scientific journals

Of the 8 publications about the participation in the competition of Assoc. Prof. Dr. Tosho Yordanov Ganev the distribution is respectively:

- first author - 3 (36 %)
- second author - 4 (50 %)
- third/successive - 1 (14 %)

4. Compliance with minimum national requirements

According to the data from the Academic Reference of Assoc. Prof. Dr. Tosho Yordanov Ganev, MD, prepared by the library of MU - Varna / No. 151 of 15.04.2025 / and the compliance with the minimum national criteria in Area 7. Health and Sports, *Professional Field 7.1 Medicine - Medical- Clinical Area* - The total number of points for all indicators from the submitted reference exceeds the criteria.

Six of the scientific publications to meet the minimum national requirements for AD "Professor" are indexed in global databases (Scopus, Web of Science) (G7.1-G7.6) - 228.67 points with a minimum requirement of 80 points for clinical disciplines, and 2 are in non-refereed journals with scientific review (G8.1-G8.2) 12 points with a total number of points of 280.67 points with a mandatory minimum for MU-Varna - 200 points.

For indicator **E** / acquired scientific degree, training of interns, postgraduates and doctoral students, acquired specialty - total indicators **E13-E22 - 170 points**.

Citation:

Citations reflecting the scientific activity of the candidate for the title of *Professor* according to the reference from the Medical Library - Varna/indicator D 10-12 - with a list of those citing the works of Assoc. Prof. Tosho Yordanov Ganev-23 (345 items)

5. Assessment of contributions in scientific, applied and medical activities:

The scientific papers submitted for participation in a competition for the academic position of "professor" in the specialty "Urology", professional field of Medicine, in the field of higher education Health Care and Sports at the Faculty of Medicine, Department of Urology, according to an announcement in the State Gazette, issue. 15 of 21.02.2025 are 11 in total and reflect the scientific and research activity in the period 2018-2025.

Distribution of scientific papers by type:

- ✓ Habilitation thesis **Ganev T.** Modern diagnostics of prostate cancer. Varna: MUVarna; 2025
- ✓ Dissertation **Ganev T.** Research and optimization of hormone therapy for prostate cancer. MU-Varna; 2008
 - ✓ Publications in magazines and collections
- **Ganev** T. Psa Density- a Marker for Poorly Differentiated Prostate Cancer. J IMAB. 2025 Mar;31(1):6009–12.;
- Ganev T. Does high-risk prostate cancer have worse survival after radical prostatectomy? J of IMAB.; Kostov S., Kornovski Y., Yordanov A., Watrowski
- R., Slavchev S., Ivanova Y., **Ganev T.**, Yalçın H., Selçuk I. Surgical Anatomy and Dissection of the Hypogastric Plexus in Nerve-Sparing Radical Hysterectomy.;

- **Ganev T.** Overall and cancer-specific survival of high-risk prostate cancer impact of adjuvant therapy after radical prostatectomy. J of IMAB.;
- Dulgerov V., **Ganev T.**, Vasileva A., Nankova M., Eguruze K. Management of emphysematous pyelonephritis A clinical case. Trakia Journal of Sciences, ;
- Lazarov B., **Ganev** T. Rare case of undifferentiated renal sarcoma case report. Journal of IMAB;
- Nankova M., **Ganev T.**, Dulgerov V., Eguruze K., Dimitrova S. A clinical case of Tuberous sclerosis rupture of an angiomyolipoma of the left kidney. Zeszyty scientific pwsz,;
- Nankova M ,, Ganev T., Borisova S., Chusova Yu., Dulgerov V. Comparative analysis of statistics and nature of urgent complications resulting from treatment by extracorporeal shock wave lithotripsy. Science through the prism of time No. 5;
- Nankova M., Eguruze K., Grozdeva D., **Ganev T.**, Mihailova Y. Clinical case of a double pyelocaliceal system with a partial duplication of the ureter diagnosed because of ureteral concretions and surgical intervention. Journal of IMAB

The main directions in the author's scientific research work are related to modern methods for diagnosing the prostate gland, surgical treatment of high-risk prostate cancer, optimization of hormonal therapy in prostate cancer, kidney complications resulting from extracorporeal lithotripsy, and research into the relationship between PSA density and the degree of differentiation of prostate cancer assessed by the Gleason score.

Distribution of works by scientific fields:

- ✓ Oncourology
- ✓ Urogynecology
- ✓ Congenital kidney abnormalities
- ✓ Inflammatory kidney diseases

Main areas of scientific work:

- ✓ Diagnosis and screening of prostate cancer
- Optimizing hormone therapy in prostate cancer

- Multimodal treatment of high-risk prostate cancer
- Treatment after complications resulting from extracorporeal lithotripsy

Contributions related to the main areas of scientific work:

- In his works, the author has emphasized current and future advances in imaging and biopsy techniques, which promise to further improve the accuracy and efficiency of prostate cancer detection, as the disease is a serious public health problem, the second most common cancer and the fifth leading cause of cancer-related mortality worldwide.
 - ✓ Some of the publications share the author's personal experience.
- ✓ All modern diagnostic methods for early detection of prostate cancer are described.
- An analysis of prostate-specific antigen (PSA) screening has been conducted, contributing to the reduction of PCa mortality, but also creating a risk of overdiagnosis and subsequent complications from unnecessary treatment.
- Studies related to the relationship between prostate-specific antigen density (PSAD) and the degree of differentiation of prostate cancer, as determined by the Gleason score . Conclusions: PSAD is a valid tool that correctly predicts unfavorable pathology.
- mpMRI is reviewed as a revolution in the diagnosis of prostate cancer, incorporating imaging modalities including T2-weighted images, diffusion-weighted images (DWIs) and dynamic contrast-enhanced images (DCEs), thus facilitating precise delineation of suspicious lesions. The introduction of PI RADS version 2 is reviewed as an opportunity to standardize the interpretation and reporting of mpMRI results, as well as facilitating risk stratification prior to biopsy decisions; MRI as a valuable tool for identifying suspicious areas in the prostate, facilitating targeted biopsies while minimizing unnecessary procedures in men without detectable lesions. The use of mpMRI has been shown to improve the identification of csPCa without the risk of overdiagnosis. This technique accurately defines areas of lesions suitable for targeting and, thanks to the integration of image fusion technology, simplifies real-time targeted biopsy procedures.
- Emphasis is placed on the innovation of Fusion technology, the conclusions drawn indicate that it is highly targeted, which makes it an evolution, both in terms of patient experience when performing diagnostics and

in the accurate identification of prostate cancers. The main advantage of Fusion biopsy is the significantly improved diagnostic accuracy. Fusion biopsy is a revolutionary technology made possible by superimposing ultrasound images of the prostate with MRI sequences for visualization and targeting of lesions. In this way, suspicious areas detected by MRI are displayed on the ultrasound scanner, allowing the urologist to target the necessary biopsies in real time.

- The topic of optimizing hormone therapy in the direction of intermittent hormone therapy aimed at prolonging patient survival, improving quality of life, reducing complications related to hormone therapy and reducing mortality is also discussed in detail. The analysis is based on a multi-year study conducted in the treatment of PCOS with hormone therapy. In this way, general scientific knowledge of hormone therapy was supplemented, as specific criteria for selecting patients for treatment with CHT and IHT were determined, and intermittent therapeutic regimens were proposed for application, strictly differentiated and tailored to both the characteristics of the carcinoma (clinical stage and degree of differentiation) and the times for the onset of complications of antiandrogen hormone therapy (hormone resistance, progression, lethal outcome). It is summarized that the effectiveness of the treatment of prostate cancer with IHT is directly related to the characteristics of the cancer and the methodology determining the duration of time with and without androgen deprivation, as well as that the application of IHT has a positive clinical effect in a selected group of patients with androgen-dependent prostate cancer and leads to a reduction in mortality and the risk of complications - hormone resistance, progression, lethal outcome.
- The works indicate that the collaboration between the urologist, radiologist and oncologist has been significantly improved, which improves survival and reduces mortality in the treatment of high-risk prostate cancer. Both the world's scientific achievements in the field of surgical treatment of prostate cancer and the results of a retrospective study of patients registered and treated in the period 1996 2022 have been systematized. The increased knowledge obtained within the framework of this study has provided new knowledge regarding the treatment of high-risk prostate cancer.
- An analysis of complications resulting from extracorporeal lithotripsy was conducted, aimed at individualizing the approach and drastically reducing urgent and emergency surgical interventions after ECLT. The analysis is related to statistics provided by Acibadem City Clinic and St. Anna General Hospital, for the period from 2011 to 2016.
- ✓ All modern diagnostic methods for early detection of prostate cancer are described.

6. Teaching and learning activities:

According to the certificate provided by MU-Varna, Assoc. Prof. Dr. Tosho Ganev has a teaching experience of 26 years, 7 months and 26 days as of the date of submission of the documents. He lectures, leads seminars and exercises with medical students, residents and doctoral students. He participates in examination committees: - medical students; state exam in surgery; colloquia of residents in urology; doctoral students in urology; recognition of a specialty in urology.

In addition, it trains postgraduates, develops curricula and programs. It participates in academic, scientific and educational councils, and provides methodological assistance to peripheral medical institutions.

The academic workload of Assoc. Prof. Dr. Tosho Ganev according to the submitted certificate (No. 112-46 of 28.02.2025) from the Academic Department of MU-Varna is:

School year	Lectures		Exercises		Undergraduate internship		Total hours per
	BEO	AEO	BEO	AEO	BEO	AEO	school year
2023/2024	16	0	90	0	0	0	106
2022/2023	16	0	82	0	0	0	98
2021/2022	14	0	86	0	0	0	100
2020/2021	12	0	78	0	0	0	90

i.e. his study load meets all criteria and is completely sufficient in the context of his participation in the current competition for AD "Professor".

Conclusion:

Assoc. Prof. Dr. Tosho Yordanov Ganev, MD, is an established surgeon and lecturer, with accumulated experience - a total of 26 years and 7 months of experience in the specialty.

Since 2015, he has been a Republican consultant in urology for Northeastern Bulgaria.

Regarding surgical activity, over 1,000 laparoscopic surgeries have been performed for prostate cancer and kidney cancer in the last five years, and over 100 robot-assisted surgeries for prostate cancer and kidney cancer have been performed in the last five months at the Urology Clinic of St. Marina University Hospital.

His scientific works yield important practical and scientific contributions based on long-term material studied from patients diagnosed and treated by him, operational methodologies introduced, and algorithms developed for diagnosis and therapeutic behavior.

As Head of the Department of Urology, he participates in the adoption and approval of curricula and programs. He has experience in managing medical activities - Head of the Urology Clinic. He organizes and controls the implementation of educational activities and labor discipline. He monitors and actively supports the professional development of the academic staff and all medical personnel. He has interns, postgraduates and doctoral students under his supervision.

All the above facts from the professional biography, scientific production, diagnostic-therapeutic and educational-teaching activities of Assoc. Prof. Dr. Tosho Yordanov Ganev, MD, fully complying with the legal requirements in the ZRASRB, the Regulations for its implementation, as well as the Regulations of MU - Varna, give me a sufficiently categorical reason to recommend to the Scientific Jury to vote positively and to award him the title of "Professor" in the scientific specialty "Urology".

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Prol. Maxincho Georgiev, MD