

*To the Chairman of the Scientific Jury appointed by
Order No. RD-26-244/31.01.2023 of the Executive Director
of UMHATEM "N.I. Pirogov" EAD*

REFERENCE

From Prof. Dr. Marin Ivanov Georgiev, MD
Head of Urology Clinic, UMHAT "Alexandrovska",
Medical University – Sofia

Concerning the competition for the academic position of "Associate Professor" announced in State Gazette No. 86/28.10.2022 in the field of higher education 7. "Health and Sport" in the professional field 7.1. "Medicine" and scientific specialty "Urology".

Only one candidate was admitted to the competition is Dr. Boris Serozhev Mladenov, PhD, working at the Department of Urology - Adults at the University Hospital "N.I. Pirogov" EAD
All required administrative documents, evidence of professional and career development have been provided. All submitted materials meet the requirements of the Law on Academic Development and the Regulations for Academic Development at the University Hospital "Pirogov" EAD.

1. Biographical data

Dr Boris Seryozhev Mladenov, PhD was born on 25.10.1985 in Sofia. He graduated in medicine in 2010 and in 2017 he acquired a specialty in urology. In 2017 he graduated with a Master's degree in Health Management and in 2016 he defended his PhD in Urology. From 2011 to 2017 she was an assistant professor and since 2017 a chief assistant professor at the Urology Clinic of the University Hospital "N.I. Pirogov" EAD, Adult Urology Department. In addition to the University Hospital "N.I. Pirogov", Dr. Mladenov has been working as a urologist at the Hospital of Urology and Medical Oncology in Sofia since 2018, with a second specialty from 2021. Dr. Boris Mladenov, MD is fluent in English and German (C1) and is a member of the Bulgarian Urological Society and the European Association of Urology.

2. Research activity

70 scientific papers have been submitted for review in a competition for the academic position of Associate Professor, including a dissertation with an abstract, participation in chapters of a collective monograph and co-authorship in textbooks for medical students.

The scientific works are presented by number in the appropriate sections according to the type of articles - in refereed journals and those in Bulgarian peer-reviewed journals.

A division is made according to whether the candidate is the first or subsequent author. The research papers cover the following areas:

- Oncourology

The candidate has a strong interest in the diagnosis and treatment of oncurological diseases, and a significant number of publications are on the subject (17,22,28,58,30,33,47,62,63) - in addition to numerous publications on bladder cancer, there are publications on the diagnosis and treatment of prostate cancer, incl. co-authorship of the first articles in this country regarding PET/CT diagnosis of prostate cancer, as well as therapeutic nuclear medicine options for advanced prostate cancer (53,59).

- Urological trauma

The author is experienced in the diagnosis and treatment of urologic trauma, both of the urinary system and the male genital tract. Much of the scholarly work deals with the topic - articles on the subject of trauma to the urinary system (23,36,38,39,41); trauma to the male genital tract (35,42,51). Also 4 chapters of a collective monograph (monograph 2,3,4,5) are presented on the topic. The author was involved in the introduction and validation in the Pirogov Emergency Institute in Bulgaria of a modern approach to the treatment of renal trauma in relation to the AAST classification with priority to organ-preserving approaches, selective embolization, etc.

- Non-traumatic urgency in urology

The author's publications related to non-traumatic urological emergencies - hematuria, acute scrotum (25,29,32,37,43) were submitted for review. The author has contributed to the development of an approach to the management of priapism as a urological emergency (3,10,24,40).

- Haematuria as a symptom in urology

Some of the author's publications are related to the study of macroscopic hematuria (21,22,25,26,31,32,37,50), its manifestation and features in malignancy (12,22,28). The relationship of hematuria and the anticoagulants in widespread use today has been studied (1,27), and he authored a chapter in a monograph on the subject (Monograph 1). Proposed an algorithm for the management of macroscopic nontraumatic hematuria in an emergency outpatient clinic.

- Genetic features of bladder cancer and their practical significance for prognosis and treatment of the disease

The candidate has a number of publications as a co-author in multidisciplinary teams dealing with the genetic specificities and features of bladder cancer (8,83,9,12,48,49,61), participant in 2 scientific projects on the topic at MU-Sofia and the Scientific Research Fund.

- Pediatric urology and diagnosis and treatment of congenital malformations

Some of the publications of the candidate are related to paediatric urology and congenital malformations of the genitourinary system (11,14,16,18,55,56,57,60).

- COVID-19

Candidate's papers have a relationship with urological complications of COVID-19 viral infection, one of the modern and emerging diseases (10,40)

- OTHERS

The candidate's publications related to reconstructive urology not only in children, but also in adults - treatment of urethral strictures (15,44), as well as research papers on rare clinical cases, such as, for example, the now rare renal echinococcosis (4,54), rare testicular tumors (11)

1. Candidate's science metrics:

- Publications in refereed journals with scientific peer review- 21 -4 of which as first author.

- 42 publications in non-refereed scientific journals - in 22 of which as first author.

- Author and co-author of 5 chapters of a collective monograph, as well as a textbook on urology for medical students in Bulgarian and English.

- 19 citations in refereed journals with scientific peer review - 9 in SCOPUS (Elsevier) and 10 in Web of Science (Clarivate), as well as 6 in non-refereed journals are presented.

- Total impact factor 29,2 (from the reference of the Central Library of Medicine - CBM).

2. Scientific and theoretical contributions:

- Detailed analysis of the approaches to diagnosis and treatment of kidney injuries, the results of conservative and operative treatment in relation to the different degrees of AAST classification.

- The possibility of conservative treatment of higher grade renal lesions for nephron-sparing is confirmed; selective angioembolization is routinely used in practice

- Numerous genes with putative links to bladder cancerogenesis and mutations characteristic of a more aggressive type of bladder cancer have been identified as potential "candidates" for future targeted therapy

- Study group of hospitalized patients with hematuria receiving anticoagulant and/or antiaggregant therapy

3. Scientific and applied contributions

Proposed an exemplary treatment protocol for patients with upper urinary tract (UUT) and lower urinary tract (LUT) hematuria.

Development of a modern approach to the management of kidney trauma with the participation of a multidisciplinary team at the University Hospital "Pirogov".

Development of a management algorithm for patients with priapism

Analysis of patients with hematuria and the likelihood of malignancy disease, including in those on anticoagulant therapy

4. Teaching and research projects

The author supervises residents in urology, lectures to medical students in the framework of "Emergency Medicine", was a visiting assistant professor in urology at the Medical Faculty of St. Kliment Ohridski University and has conducted classes for Bulgarian and foreign students. Participated in research teams in two national projects on genetic features and characteristics of bladder cancer, jointly with the Department of Genetics of the MF-Sofia: a project at the Fund for Scientific Research (FNR), contract DM13/4 of 20.12.2017 and a project at MU-Sofia, contract D-60/03.05.2018.

5. General assessment of the applicant's compliance with the minimum national requirements and the requirements specific to UMHATEM "Pirogov" EAD, requirements by fields and for units with clinical activity, defined in the Regulations for Academic Development at UMHATEM "Pirogov" EAD:

The evidence provided shows full compliance, meeting and exceeding the minimum required indicators.

Group of indicators	Contents	Minimum points requirements according to national requirements	Number of points available according to national requirements	Number of points according to the requirements of the University Hospital "N.I. Pirogov".	Available number of points according to the requirements of the University Hospital "N.I. Pirogov" EAD -
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				Pirogov" EAD - Sofia	Sofia
A	Indicator 1	50	50	50	50
B	Indicator 2	-	-	-	-
C	Indicator 3 or 4	100	212,85		
D	Sum of indicators from 5 to 9	200 (160 for PN 7.6)	354	750	1844
E	Sum of indicators from 10 to 12	50	315	50	315
F	Sum of indicators from 13 until the end	-	170	-	170
G	IF (concerns only the requirements of the University Hospital "N.I. Pirogov")	-	-	5	29,229 (value)

6. Conclusion

Dr. Boris Mladenov, Ph.D. with his scientific production shows a great diversity in terms of his scientific and research searches, developed topics and scientific projects. The contributions of the research are both theoretical and purely practical and have national and international significance. It is noteworthy the constant striving of Dr. Boris Mladenov for continuous improvement and desire for development, which undoubtedly makes him a complex urologist, proficient in various theoretical and operational techniques. He presents a very good teaching load both in terms of residents, as well as medical students, including in English. With the summary made in this way, I believe that Dr. Boris Mladenov fully meets the requirements of the University Hospital "N.I. Pirogov" for obtaining the academic position of "Associate Professor". I give my positive assessment and recommend that the other members of the esteemed jury vote positively.

19.02.2023

Prof. Dr. Marin Georgiev, PhD

Sofia