# REVIEW

# BY PROF. DR. NIKOLA YORDANOV KOLEV, MD DEPARTMENT OF GENERAL AND OPERATIVE SURGERY MEDICAL UNIVERSITY "PROF. DR. PARASKEV STOYANOV "VARNA

## ABOUT

Announced competition for academic position: "ASSOCIATE ASSOCIATE" in the field of Higher Education 7. Health and sports, professional field 7.1. Medicine, specialty Imaging diagnostics for the needs of the Department of Imaging Diagnostics, Interventional Radiology and Radiation Therapy, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov "- Varna, published in the State Gazette, issue 17 / 26.02.2021

Pursuant to the Order of the Rector of the Medical University - Varna  $\mathbb{N}$  P-109-179 / 26.04.2021 and the decision of the first meeting of the Scientific Jury, held on 10.05.2021, I was appointed to prepare an official review as an internal member of the Medical University - Varna.

The only candidate in the announced competition for the academic position of "ASSOCIATE ASSOCIATE" at Imaging Diagnostics, Interventional Radiology and Radiation Therapy, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov "- Varna, is Dr. Georgi Nikolaev Todorov, MD. In the electronic reference according to the current ZRAKSRB it is evident that Dr. Marinov meets the requirements for holding the academic position of "Associate Professor". The candidate has submitted all required documents specified in the regulations for the development of the academic staff of MU - Varna. All other mandatory documents are up to date and comply with the requirements.

## 1. BIOGRAPHICAL DATA

Dr. Georgi Nikolaev Todorov, MD was born on 28.12.1988 in the town of Stara Zagora. He graduated from Ivan Vazov High School in Stara Zagora with honors. In 2007 he was admitted to the specialty "Medicine", and in 2013 he graduated from the Medical University -Varna. He holds a master's degree in Health Management at the Medical University "Prof. Dr. Paraskev Stoyanov "- Varna.

In 2014 he held the position of "Resident Doctor" in the Angiography Sector at the Clinic of "Imaging Diagnostics", University Hospital "St. Marina "- Varna, where he specialized and acquired the specialty" Imaging Diagnostics "in 2018. He conducted specializations in interventional procedures on the hepatobiliary system at the University Hospital in Brno, Czech Republic in 2014, in 2017. conducted specialization in "Neurovascular interventions" at the University Hospital "Karolinska" - Stockholm, Sweden, and in 2018. course in interventional procedures for diseases of the liver, pancreas and stomach in Dublin, Ireland.

In 2016 he defended a dissertation on "Interventional approaches and diagnosis of malignant diseases of the hepatobiliary system" at the Department of Imaging, Interventional Radiology and Radiation Therapy.

His academic development began in 2013 as a "part-time lecturer" at the Medical University "Prof. Dr. Paraskev Stoyanov "- Varna. After a competition he was appointed Assistant, and from 2018 until now he is Chief Assistant.

According to the presented reference in the specialty "Surgery" Dr. Marinov has a work experience of 7 years and 3 months.

Along with the obligatory documents for participation in the competition, Dr. Todorov has also provided certificates from Conducted individual trainings on the topic: "Doppler sonography", "Non-vascular interventional procedures under imaging control", "Invasive imaging diagnostics and interventional radiology".

There is a certain interest in professional orientation in the field of invasive radiology. Declares skills to work with the highest technological equipment. Fluent in English.

## 2. SCIENTIFIC METRICS

Dr. G. Todorov, MD presents photocopies, original abstracts and full-text publications as follows:

1. Monographs: one chapter 1 pc. with a total volume of 10 pages.

- 2. Textbooks: one chapter 1 pc. with a total volume of 19 pages.
- 3. Studios: 1 pc. with a total volume of 6 pages.
- 4. Articles: 39 pcs. with a total volume of 177 pages.
- 5. Reports: over 15 pcs.

Dr. Todorov presents equivalent to habilitation work scientific publications in publications that are referenced and indexed in world-famous databases with scientific information - 10 pcs .; Publications and reports published in scientific journals, referenced and indexed in world-famous databases with scientific information - 2 copies; Publications and reports published in non-refereed journals with scientific review or published in edited collective volumes - 10; Published chapter of a collective monograph - 1 pc.

From the submitted author's report on the contributions of the scientific works, the candidate derives contributions that I acknowledge. It should be noted that the contribution is the defended dissertation - "Interventional approaches and diagnosis of malignant diseases of the hepatobiliary system", which analyzes the results of many modern interventional procedures on benign and malignant diseases of the hepatobiliary system.

Official references from the Library at MU-Varna are presented, which shows the presence of 3 citations in scientific journals, referenced and indexed in world-famous databases with scientific information or in monographs and collective volumes and 1 in non-refereed journals with scientific review. The candidate has presented a list of participations in 35 scientific forums in Bulgaria and abroad.

## 3. SCIENTIFIC AND PRACTICAL CONTRIBUTIONS

I acknowledge the following contributions of Dr. Georgi Todororv, MD, which are divided into three categories:

3.1. Contributions to the defended dissertation on "Research on the surgical treatment of chronic pancreatitis and its complications."

• For the first time in Bulgaria a complex analysis of the results of the applied four different mini invasive (percutaneous and endovascular) methods for treatment of malignant liver diseases is made.

• For the first time in Bulgaria, endovascular preoperative percutaneous embolization of the portal vein was performed for the purpose of hepatic hypertrophy of the OC.

• Introduced in practice and reported results of the "free hands" technique.

• Percutaneous thermal ablation applied in practice in combination with surgically performed, as multimodal in liver metastases.

• Introduced in practice and reported results from the Rendezvous technique in the combined radiological-endoscopic methods

• Performing biliary drainage as a "bridge" procedure in patients with malignant diseases of the hepato-pancreatic system, as an indispensable percutaneous procedure in the surgical approach to radical treatment.

3.2. Contributions related to studies mentioned in publications

## Chapter from a collective monograph

Publications: D9.1

1. A detailed literature review of the applications and indications of vascular ultrasound of peripheral arteries as a diagnostic method (cognitive and methodological contribution).

2. Extensive and up-to-date data on the historical part of Doppler ultrasound diagnostics are presented, as well as a thorough deepening in the physical principles of action and analysis of the obtained image, scales and curves (contribution of cognitive, practical and methodological nature).

3. Detailed instructions for interpretation of the figurative findings are presented (contribution with cognitive, practical-applied and methodological character).

# Articles with oncological and interventional focus

Publications: B4-1, B4-2, B4-3, B4-4, B4-5, G7-1, G8-3, G8-4, G8-7,

1. An overview of the epidemiological, pathogenetic and clinical aspects of malignancies is made. They are the second leading cause of death worldwide, displacing cerebrovascular disease as a cause of death. Under the common banner of cancer are more than 150 different malignant processes with a similar mechanism of development, such as uncontrolled growth, metastasis, infiltration of surrounding organs and tissues, cell death and many others (cognitive contribution).

2. A multidisciplinary team led by interventional radiologists presents original articles based on their own experience (contributions of original, cognitive and practical nature).

3. The same team presents an article, again based on their own experience, on interventional procedures under image control in mechanical jaundice, X-ray diffraction, embolization in malignant liver diseases (contribution of original, cognitive and practical nature).

4. Original cases of embolization of arteries in life-threatening bleeding (contribution of original, cognitive and methodological nature) are presented.

# Articles concerning advanced diagnostic and surgical techniques

Publications: B4-6, B4-7, B4-7, B4-9, B1-1, G8-5,

1. A modern and comprehensive overview of the modern surgical techniques used in the treatment of oncological diseases in the field of abdominal surgery - emphasis on oncological diseases of the liver and GIT (contribution of cognitive and scientific-applied nature and original character).

2. Developed articles with a focus on innovative and established methods for diagnosis of rectal cancer with an emphasis on endorectal diagnosis (contribution of cognitive and scientific-applied nature, theoretical-methodological and scientific-applied nature).

Articles with neuroradiological and cardiovascular orientation

Publications: B4-10, G7-2, G8-1, G8-3 G8-7,

1. A particularly detailed review has been compiled, focusing on the diagnosis and treatment of cerebrovascular diseases and in particular of intracranial aneurysms, AVM and consequences of SAH (contribution of cognitive and scientific-applied nature, contribution of cognitive and methodological nature).

2. A multidisciplinary team reports a case of cortical laminar necrosis after subarachnoid hemorrhage (cognitive contribution).

3. A multidisciplinary team reports original cases of life-threatening bleeding which in different cases has been managed with different interventional approaches (contribution of original, cognitive and methodological nature).

4. A multidisciplinary team reports a case of an original and innovative method for implanting permanent vascular access for hemodialysis directly in the right atrium (contribution of original and innovative nature).

#### Articles with student participation

### Publications: G8-2, G8-7, G8-8

1. Students from several consecutive courses in the specialty "X-ray laboratory assistant" are stimulated to participate as full-fledged co-authors in review scientific papers concerning imaging methods, physical principles of X-ray methods and basic nosological units (contribution with cognitive, scientific-theoretical and methodological).

2. A high level of motivation of the student body has been achieved, articles have been created on their own initiative under the editorship and with the participation of the candidate (methodological contribution).

3. One of the articles initiated by the student team is cited twice by foreign teams in unreferred journals (contribution of cognitive and theoretical-methodological nature).

4. The collaborative papers are presented by the students during their participation in several scientific conferences in Bulgaria (contribution of cognitive, scientific-theoretical and methodological nature).

An original study of the effect of an online reference platform

Publications: G8-2

1. An original internal study was conducted among the Clinic of Imaging Diagnostics at the University Hospital "St. Marina" Varna regarding the opinion of radiologists on the reference system StatDx after one year of active use of the same. An original article has been written discussing the results, which are mostly positive. The article is cited twice in peer-reviewed journals (contribution of original, informative and practical nature).

## Others

Publications: G8-6, G8-10, and two articles outside the minimum scientometric

1. A multidisciplinary team shall present a publication on an original study concerning autophagy and Necropotosis (contribution of an original and scientifically applied nature).

2. Original cases of severe OHS are presented with given recommendations for increase (contribution of original, cognitive and methodological nature).

### 4. ACADEMIC ACTIVITY

From 2013 to 2016, Dr. Todorov is a "Part-time Lecturer" at the Medical University "Prof. Dr. Paraskev Stoyanov "- Varna. After a competition, he was appointed Assistant in 2016, and since 2018 he has been Chief Assistant. For the period 2016 - 2020, its annual study load is 165, 155 178 and 155 students, respectively. o'clock. Teaches in the following specialties: Imaging diagnostics of students majoring in Medicine; Imaging of students majoring in "Nurse"; Imaging of students majoring in Midwifery; Imaging of students majoring in "Physiotherapist"; SID in Ultrasound Diagnostics for students majoring in "X-ray technician"; Image processing of students majoring in "X-ray laboratory assistant"; Fundamentals of diagnostic imaging of students majoring in "X-ray technician"; Clinical imaging of students majoring in "X-ray technician".

### CONCLUSION

Presented by Dr. Georgi Todorov, MD documents and his professional and academic development fully meet the requirements for acquiring the academic position of "ASSOCIATE ASSOCIATE", defined in the rules of development of the academic staff at the Medical University "Prof. P. Stoyanov "- Varna. Given the undeniably high level of professionalism of Dr. Todorov, both a lecturer and a modern interventional radiologist, I propose to the scientific jury to vote positively for his election to the academic position of "Associate Professor".

June 10, 2021 Varna

Prof. Dr. N. Kolev, MD / signature