TO THE CHAIRMAN
OF THE SCIENTIFIC JURY,
DETERMINED BY ORDER № P-109-167 / 14.04.2022
OF THE RECTOR OF MU-VARNA
PROF. VALENTIN IGNATOV, MD, PhD

# REVIEW

From Prof. Dr. Dimitar Ivanov Bulanov, PhD, surgeon

Dean of the Faculty of Medicine, Medical University - Sofia,

Department of General and Operative Surgery, Faculty of Medicine, Medical University - Sofia.

Clinic of General and Hepato-pancreatic Surgery, University Hospital "Alexandrovska" EAD.

**Subject**: Conducting a competition for the academic position of "Associate Professor", field of higher education 7. Health and sports, professional field 7.1. Medicine, specialty "Surgery" - one, 0.5 full-time position for the needs of the Department of General and Operative Surgery at the Faculty of Medicine and 0.5 full-time position for the First Clinic of Surgery at the University Hospital "St. Marina" EAD-Varna.

The competition was published in the State Gazette No. 14 / 18.02.2022. The only candidate was admitted to the announced competition - Chief Assistant Dr. Aleksandar Kamenov Zlatarov, PhD.

All documents under the procedure were submitted to me in time and meet the legal requirements of the ZRASRB and the related normative documents.

### Brief biographical data

Dr. Aleksandar Zlatarov, PhD was born on 12.17.1987. He graduated from the First Language High School - Varna in 2006. He graduated medicine at the Medical University of Varna in 2012. Since 2012 he has been working at the First Clinic of Surgery at the University Hospital "St. Marina "- Varna. Since 2012, after a competition, he has been appointed an assistant at the Department of General and Operative Surgery at the Medical University of Varna, and is currently the chief and administrative assistant.

He has accuired a specialty in Surgery in 2018.

In 2018, after successfully defending his dissertation on the topic: "New methods in the laparoscopic treatment of hiatal hernias" he acquired the educational and scientific degree "Doctor" in General Surgery.

The candidate has passed many additional qualification courses for training in the country and abroad, mainly in the field of endoscopic and laparoscopic surgery. He has been trained to work with the daVinci Xi robotic surgery system.

He speaks English, German and Russian.

#### Scientometric indicators of the candidate

To participate in this competition, Dr. Zlatarov presents 1 dissertation - 1, 7 chapters from a monograph (published abroad), 1 chapter from a monograph (published in Bulgaria), publications in journals, referenced and indexed in world-famous databases with scientific information, of which published abroad - 5 and published in Bulgaria - 9, publications in unreferred journals, of which published in Bulgaria - 30, and published abroad - 3. The presented publications and attached references show 8 citations and total IF- 3,425 as in 2 of them he is the first author, second - in 5 and in 48 of the publications - third and consecutive.

31 of the articles have been published in English, the remaining 25 - in Bulgarian. The presented report on participation in international scientific forums includes 22 such, as well as 30 participations in national scientific forums.

Dr. Zlatarov meets and exceeds the minimum national requirements for scientific and teaching activities for the acquisition of the required points by groups of indicators for holding the academic position of "Associate Professor", observing the rules for their calculation:

Group of indicators	Contents	AD "Associate Professor" (points)	Points of Dr. A. Zlatarov, PhD
A	Dissertation work	50	50
В			
IN	Scientific publications equivalent to a habilitation thesis	100	104.5
Mr.	D7. Publications and reports published in scientific journals, referenced and indexed in world-famous databases with scientific information (min. 60 points)		78.95
	D8. Publications and reports published in non-peer-reviewed journals with scientific review or published in edited collective volumes	0	142.68
		200	202,68 т.
D	Citation		120 t.
Total number of points		400 t.	496.13 т.

In addition to the minimum requirements, 7 full-text publications with a total number of points of 45.92 are presented.

## Analysis of the candidate's scientific achievements

I accept the presented self-assessment of the scientific contributions as sufficiently detailed, well-structured and reliable. The topic of the presented scientific papers and participation in scientific forums of Dr. Zlatarov clearly outlines five main areas:

- ✓ colorectal surgery,
- ✓ upper digestive tract surgery,
- ✓ hepatobiliary surgery,
- ✓ minimally invasive surgery for adrenal tumors.
- ✓ training in laparoscopic surgery,
- ✓ biotechnology.

The main part of the scientific papers is devoted to the topic of surgical treatment of colorectal cancer (G7-4, G7-9, G8-1, G8-4, G8-5, G7-11, G8-21). A study on an innovative for the country method for endoscopic submucosal dissection in early rectal carcinoma (carcinoma in situ, T1sm1 and T1sm2) was conducted. An analysis of our own results from the use of laparoscopic intersphincter resection in patients with low rectal cancer has been performed. Particular attention is paid to modern standards for radical surgical treatment of rectal cancer. Overview publications on the possibilities of stenting and decompression in colonic ileus as a method for improving operative and oncological results and modern surgical strategies in malignant colonic obstruction are presented.

A series of publications prepared by a multidisciplinary team focused on diagnostic methods for colorectal cancer (B4-2, B4-3, B4-10, G8-3, G8-6, G8-9, G8-13, G8-16, D8-18). The experience of the application of endorectal ultrasound in the diagnosis of rectal cancer is presented. A multidisciplinary team presents an article based on its own experience on the predictive and prognostic efficacy of maximum standardized absorption value (SUVmax) before first-line chemotherapy and the relationship to Beclin-1 expression. A study was performed on the influence of the results of preoperative FDG-PET-CT on the surgical strategy, establishing its role in the diagnosis of unsuspected disease, influencing the approach to treatment.

A study evaluating imaging biomarkers for tumor response and regression before and after neoadjuvant therapy for rectal cancer was conducted. The diagnostic accuracy of virtual colonoscopy in neoplastic diseases of the colon was studied. An overview of modern algorithms for the diagnosis of rectal cancer in the context of neoadjuvant therapy.

A study on the application of colonoscopy and NBI regimen in the early diagnosis of colorectal cancer has been conducted. Current standards in the diagnosis and treatment of colorectal cancer are reflected in chapters of collective monographs (B4-5, B4-6, B4-7, B4-8, B4-9). A detailed literature review on the surgical strategies for liver metastases of colorectal cancer is presented, as well as our own experience in performing modern multimodal strategies. A detailed literature review of neoadjuvant chemotherapy in colorectal cancer was presented, presenting the use of new novel cytotoxic agents and their effect on disease-free survival (DFS) and overall survival (OS) in patients with metastatic colorectal cancer. The need for prognostic factors such as microsatellite instability (MSI) is pointed out. A literature review was presented presenting strategies for the treatment of

synchronous CRC, including simultaneous resection, two-stage liver surgery, and the liver-first approach.

A literature review of publications from the last 20 years concerning laparoscopic surgery for colorectal cancer is presented. A literature review on the application of endoscopic submucosal dissection in early colorectal cancer is presented, including an assessment of the technical aspects and complications of the procedure. A detailed description and meta-analysis of imaging strategies for neoadjuvant and adjuvant radiotherapy and chemotherapy for patients with rectal cancer and colon diverticulosis (G8-19) is presented. A literature review focused on modern surgical strategies for complicated diverticulosis has been reviewed.

In the field of surgery of the upper digestive tract is the dissertation of Dr. A. Zlatarov, who discusses current issues related to minimally invasive methods in the treatment of hiatal hernia. A detailed literature analysis of laparoscopic methods for the treatment of hiatal hernia has been performed. A wide variety of laparoscopic surgical methods have been used in the treatment of hiatal hernias. An in-depth study of 260 operated patients with long-term follow-up over a period of 3 years was performed. A modern and statistically reliable study of the application of laparoscopic methods for the treatment of hiatal hernia has been performed. An analysis of the causes and anatomical variants for recurrence after laparoscopic surgery for hiatal hernia is presented. An analysis of the specific complications after laparoscopic fundoplication and behavior was performed. The principles for optimal operative approach in the laparoscopic treatment of hiatal hernia are defined. An algorithm for intraoperative behavior in esophageal shortening has been derived. The experience of laparoscopic fundoplication is presented in a series of publications presented at national congresses (G8-23; related to the dissertation G8-2, G8-4, G8-6).

Cases from practice are presented, describing rare diseases of the upper digestive tract and those in which an innovative minimally invasive method has been applied - B4-1, G8-2. A case of a patient with an inflammatory fibroid polyp with rare localization in the duodenum has been described. A case of a patient with a giant esophageal polyp in which a minimally invasive technique with sclerosing agent injection was used and Ligasure technology was used was described. A case of a patient with esophageal leiomyoma combined with hiatal hernia, representing a diagnostic challenge, has been described. A multidisciplinary team conducted a review of the application of radiation therapy in esophageal cancer. The data from the studies and meta-analyzes examining the application of independent radiotherapy and radiochemotherapy in preoperative, postoperative or definitive plan are summarized. A literature review of the world experience in the application of radiotherapy in gastric cancer, in support of its introduction in clinical practice in Bulgaria, is presented. The available results of the studies in this direction are considered (G7-5, G7-6, G8-23). Own experience in patients with acute nonvaricose bleeding from the upper GIT is presented, and a comparative analysis of the author's algorithms with the data from the literature (G8-20).

A series of publications deals with current issues in the field of hepatobiliary surgery (G7-2, G8-7, G8-8, G8-10, G8-14, G8-15, G8-17, G8-24, G8-25, G8-26, G8-27.G8-28, G8-29). Our own experience in the application of endoscopic retrograde biliary drainage and percutaneous drainage in mechanical jaundice is presented. The methods are modern, with good results, allowing faster recovery of patients and initiation of specific antitumor treatment. A literature review on the application of intraoperative ultrasound in liver metastases and its impact on the intraoperative approach is presented. An overview of the surgical approach to liver metastases from colorectal cancer is presented, highlighting the evolution of modern strategies. A literature review of new data on epidemiology, current trends in diagnostics, surgical methods, including minimally invasive techniques is presented. A retrospective study of the results of liver resections in colorectal cancer metastases was performed. His own experience in palliative surgical and endoscopic treatment of pancreatic cancer is presented. A study was performed on postoperative follow-up of patients with liver resections for colorectal metastases. Postoperative survival in months was analyzed depending on the threshold concentration of C-reactive protein after liver resection in colorectal cancer metastases. The use of epidural anesthesia and analgesia in liver resections has been studied. The dynamic changes in the serum levels of five enzymes in patients undergoing monosegmentectomy, bi- and trisegmentectomy or hemihepatectomy were studied, which contributes to the adequate treatment of functional disorders of the liver. A literature review on modern surgical principles of liver transplantation is presented

Dr. Zlatarov participates in the team developing methods for minimally invasive surgery for adrenal tumors at the First Clinic of Surgery (G7-1, G7-3, G8-22). Own experience from the application of laparoscopic adrenalectomy is presented, confirming the advantages of the minimally invasive approach compared to conventional adrenalectomy. A rare case from the practice of adrenal oncocytoma in a 9-year-old girl who successfully underwent laparoscopic adrenalectomy is presented.

For the first time in the country a study is presented on the possibilities of virtual simulators for laparoscopic surgery in the training of medical students (G7-8).

With a team from the Department of Medical Equipment, Electronic and Information Technologies in Healthcare, Dr. Zlatarov participated in a study aimed at assessing the potential of the use of modeling and simulation techniques in assessing the suitability of 3D-printed materials for tissue presentation. breast for X-ray imaging techniques.

Dr. Zlatarov is working on a project for "Modern diagnostic and therapeutic approach to hepatocellular carcinoma" and Project BG05M2OP001-1.002-0010-C03 "Center of competence in personalized medicine. 3D and telemedicine, robotic and minimally invasive surgery", funded by the Operational Program Science and Education for Smart Growth and the European Regional Development Fund.

Dr. Alexander Zlatarov's training includes practical exercises in "General and Operative Surgery" - students of Medicine Bulgarian and English language training, III year, "Surgical Diseases" - students of Medicine Bulgarian and English language training, IV and V year "Surgery including anesthesiology and emergencies "- students of Dental Medicine - Bulgarian and English language training - III year," Surgery "- students majoring in" Midwife "." Rehabilitator "." X-ray technician "- with 2169 teaching hours for the previous 5 years at a standard of 220 hours per year.

#### **Conclusion:**

Dr. Aleksandar Zlatarov, PhD is a built and qualified specialist - surgeon in the country's leading university surgical clinic. He knows the diagnostic methods and operative techniques for the treatment of surgical diseases in the field of abdominal surgery, with a strong affinity for minimally invasive surgical techniques. He is a respected lecturer in the Department of General and Operative Surgery of the Faculty of Medicine, Medical University - Varna. He has passed consistently through all the necessary stages for the habilitation in the academic career of a teacher-clinician.

The results of his research and teaching activities fully meet both the requirements for scientometric criteria for holding the academic position of "Associate Professor", according to ZRASRB, and the quality indicators set in the Regulations for the development of the academic staff of MU-Varna.

Due to all the above, I confidently give my **positive vote** and recommend to the esteemed members of the Scientific Jury to award the academic position of "Associate Professor" in the scientific specialty "Surgery" to Dr. Aleksandar Kamenov Zlatarov, PhD. for the needs of the Department of General and Operative Surgery at the Faculty of Medicine and 0.5 full-time position for the First Clinic of Surgery at the University Hospital "St. Marina" EAD-Varna.

With respect:

Prof. Dimitar Ivanov Bulanov. MD, PhD

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Sofia 08.06.2022