ВОЕННОМЕДИЦИНСКА АКАДЕМИЯ

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To the Chairperson of the Scientific Jury,
appointed by order N 15-05-83/27.03.2025
of the Executive Director of
Acibadem City Clinic Tokuda University General Hospital Ltd.

REVIEW

by Prof. Krum Sotirov Katsarov MD, PhD, DSc Head of Clinic of Gastroenterology, Military Medical Academy — Sofia

Regarding: Competition for the academic position of "Professor" in higher education area: 7.

Healthcare and sports, Sector 7.1. Medicine, Scientific specialty: "Gastroenterology" for the needs of Gastroenterology Clinic at Acibadem City Clinic Tokuda University General Hospital, announced in SG at 12/11.02.2025.

The candidate for the position is Assoc. Prof. Dr. Petko Karagyozov, MD, PhD

Assoc. Prof. Petko Karagyozov was born on 08.08.1979. In 2004 he graduated from the Faculty of Medicine of the Medical University of Sofia.

Career development:

2006-2011. Physician at the Clinic of Gastroenterology and Hepatology - Military Medical Academy, Sofia

2011-2015. Physician at the Department of Gastroenterology; Clinic of Gastroenterology and Pulmonology, Tokuda

2015-2017. Head of the Interventional Gastroenterology Department; Clinic of Gastroenterology

and Pulmonology; Tokuda

01.12.2017. Head of the Department of Interventional Gastroenterology: Clinic of Gastroenterology and Pulmonology: Tokuda

From 2022- Head of the Gastroenterology Clinic, Acibadem City Clinic Tokuda University General Hospital

From 2005 to 2009, he specialized in "Internal Diseases", and from 2009 to 2012 in "Gastroenterology" at the Military Medical Academy - Sofia. He obtained a specialty in "Internal Diseases" in 2009 and "Gastroenterology" in 2013. Master's degree in "Public Health and Health Management" - 2016. In 2020, Assoc. Prof. Petko Karagyozov was awarded the scientific and educational degree "Doctor", after successfully defending a dissertation on the topic "Place of Cholangiopancreatoscopy in the Diagnosis and Treatment of Pancreatobiliary Diseases". He has been a member of the State Examination Commission for the Acquisition of a Specialty in Gastroenterology since 2024.

During the period 2010 - 2013 has covered all possible national qualification levels in the field of diagnostic and invasive gastrointestinal endoscopy and ultrasound.

The number of specializations of Assoc. Prof. Karagyozov in leading international medical centers, as well as the precisely selected topics, are impressive:

- gastrointestinal endoscopy endoscopic mucosal resection and submucosal dissection;
- ERCP and related endoscopic procedures
- cholangiopancreatoscopy
- echoendoscopy
- percutaneous biliary interventions

The specializations were carried out in leading interventional gastroenterology clinics - "Shonan Kamakura" (Japan), "Eppendorf" (Hamburg), AMC - Amsterdam, Shaare Zedek Medical Center (Jerusalem), "Elisabethinen" (Linz), "Gemelli" (Rome). Assoc. Prof. P. Karagyozov successfully builds on and applies the acquired knowledge and skills in practice. He is a leading national expert in the field of invasive gastroenterology - and the unique thing in this case is that his skills are universal. I.e. covers both endoscopic and procedures related to the use of ultrasound and X-ray assistance.

Special attention deserves the pioneering role of the candidate in the introduction of cholangiopancreatoscopy and in particular the so-called SpyGlass systems, which ranks him among the leading European experts in this dynamically developing endoscopic direction. The result of the candidate's in-depth work in this direction is the above-cited dissertation, as well as numerous publications in renowned international journals. Assoc. Prof. Karagyozov is a training expert in cholangiopancreatography with the SpyGlass DS, BS system for Eastern Europe.

As an expert and principal investigator, the candidate participated in a number of clinical studies related to the evaluation of the clinical effectiveness and safety profile of a wide range of medications - biological therapy for ulcerative colitis and Crohn's disease, PPIs for GERD, ASF for the treatment of refractory ascites in liver cirrhosis, V2-receptor antagonists for the treatment of ascites in liver cirrhosis, etc.

The candidate's academic career began in 2020, as a "Chief Assistant" in the scientific specialty "Internal Medicine" at Acibadem City Clinic Tokuda University General Hospital, and since 2019 he has been a part-time lecturer at the Faculty of Medicine of Sofia University "St. Kliment Ohridski". Elected as Associate Professor in Gastroenterology - 02.2022.

Assoc. Prof. Karagyozov is fluent in written and spoken German and English.

The candidate participates in the competition with 90 scientific papers, co-authorship in 4 textbooks and 85 real (full-text) publications in periodicals. Of these:

- 11 in refereed publications in English
- 1 in refereed publications in Bulgarian
- 1 in non-refereed publications in English
- 44 in non-refereed publications in Bulgarian
- 28 abstracts from international congresses, published in refereed publications in English with impact factor
- -co-authorship in manuals 4

Assoc. Prof. Petko Karagyozov has participated with 40 abstracts and reports in scientific congresses

in Bulgaria and abroad:

- 28 abstracts from international congresses in English, published in refereed publications with impact factor
- 12 abstracts from Bulgarian congresses and conferences

The candidate presents one dissertation for a doctor of medicine with the corresponding author's abstract to it.

The analysis of the scientific production shows that the candidate is the first author in 25 (28.09%) and the second author in 35 (39.33%) of the publications. He is the sole author in 4 (4.49%) publications. The publications are in authoritative international journals: Endoscopy, World Journal of Hepatology, Endoscopy International, HeartRhythm Case Reports.

Scientific articles, reports and monographs cover all areas of gastroenterology and can be grouped into the following areas:

- I. Interventional endoscopy
- I.1. The candidate's dissertation and the six related full-text publications and eight abstracts of reports presented at international scientific forums present and analyze the capabilities of digital oral cholangiopancreatoscopy. The published results are based on an own series of patients divided into four groups depending on the clinical indications in which Digital oral cholangiopancreatoscopy was performed. The results, clinical and therapeutic benefits, as well as the observed complications have been analyzed in detail. The study proves that the method does not hide additional risks and is the method of choice in the treatment of those considered "difficult", as well as in the detection of calculi missed during routine manipulations. The method is highly effective in diagnosing and developing subsequent behavior in the so-called "indeterminate" stenoses of the bile ducts, especially as a result of the possible visualization and biopsy of the stenosis. Analyzing the possibility of diagnosis and therapeutic behavior in mucinous neoplasms, strictures and intraductal calculi of the pancreas.
- I.2. Endoscopic techniques applied in the complications of acute and chronic pancreatitis.

 Five publications are devoted to these problems. Two of them consider endoscopic techniques in the treatment of haemosuccus pancreaticus. The main merit of the publications is the clarification of the place of endoscopic techniques in the complex of ERCP and angiographic

techniques applied in these cases. Three publications consider the possibilities of various endoscopic interventions - pyelotomy, stenting of the pancreatic duct, echoendoscopic drainage of peripancreatic collections. The possibilities for combining the various methods in order to achieve an optimal clinical result are also analyzed.

1.3. Echoendoscopy - echoendoscopic drainage techniques.

The technical aspects and results after echoendoscopic biliary drainage are discussed in four publications. The possibilities of the method as an alternative to percutaneous and "classic" ERCP-based drainage are also discussed.

The results of trans gastric stenting of the pancreatic duct under echoendo control have been published, as part of the interventional treatment of pancreatogenic ascites, in case of failure of RHPG-based drainage.

The indications and possibilities for liver biopsy under echoendo control in 8 patients have been discussed in one publication. Several clinical scenarios in which the method would be justified have been discussed - in lesions missed by other examination methods, in synchronous echoendo-assisted biliary drainage and liver biopsy.

The advantages of echoendo-navigated fine-needle biopsy with a "biopsy" needle have been reviewed and discussed in four publications. The candidate's experience in performing three main clinical scenarios is presented - solid pancreatic, mediastinal/pulmonary and mucosal/submucosal formations localized in the gastric wall. The main advantages are the high efficiency of the method and the absence of serious complications.

I.4. Endoscopic treatment after iatrogenic complications in interventions for diseases of the gastrointestinal tract and hepatobiliary systems.

Eight publications are devoted to the complex approach to late-recognized esophageal perforations complicated by empyema and mediastinitis. The presented results consider the complex approach endoscopic clipping and stenting in combination with video-assisted thoracoscopy, which is a salvage approach in these cases.

His own experience in "closing" iatrogenic duodenal and

colonic perforations is presented in three publications.

The author examines in detail the choice of technique depending on the specific situation and the achieved results.

latrogenic lesions of the bile ducts are a huge challenge for endoscopists working in biliary pathology. Based on his rich personal experience, Assoc. Prof. Karagyozov analyzes the possibilities of different methods - ERCP, echoendo, percutaneous drainage methods. In five publications, he demonstrates excellent comprehensive mastery of the approaches and their combination and reports a high clinical success rate (90%) in managing these complications.

I.5. Endoscopic techniques and approaches in diseases of the gastrointestinal tract

An experience with a combined method for diverticulotomy in Zenker's diverticulum is presented.

The combination includes the usage of a mediastinoscope, an endoscopic stapler with assistance from a pediatric gastroscope. Indications are discussed, as well as an algorithm for switching to flexible, in case of impossibility of performing rigid diverticulotomy. The multidisciplinary approach to robot-assisted resection of epiphrenic diverticuluma of the esophagus, analyzed with the participation of Assoc. Prof. Karagyozov, is also of high interest.

Two publications present a protocol for PEG placement with jejunal extension in patients with refractory Parkinson's disease and an analysis of the results of follow-up of a group of 92 patients for 31 months. Special attention is paid to the quality of life and complications in these patients.

- I. Review articles, algorithms, monographs, guidelines

 The universal theoretical knowledge and practical skills in the field of gastroenterology and hepatology allows Assoc. Prof. Petko Karagyozov to discuss and analyze a wide range of diagnostic and therapeutic problems in this area of medical knowledge. The interdisciplinary approaches discussed, together with surgeons, interventional radiologists, intensive specialists in complicated diseases of the GIT and hepatobiliary systems, are especially valuable. The oncological focus of some of the publications is striking management of malignant diseases of the pancreas and colon. This section includes 34 publications by the candidate.
 - II. Participation in National and International Conferences with demonstrations of endoscopic procedures "live".

Perhaps, the best assessment of Dr. Petko Karagyozov's practical skills is the invitation and participation in the endoscopic LIVE demonstrations in BULENDO 2013 and BULENDO 2017, where he partnered with leading European experts in the field of gastrointestinal endoscopy. His participation as a demonstrator in the LIVE demonstrations at the National Conferences and Congresses and in the latest edition of BULENDO 2024 undoubtedly raised the level and interest in them.

According to the attached citation report, the total number of citations for the last three years according to Scpus, Web of Science is 222. The publications have a total impact factor of 345.9, and the individual impact factor is 70.085. The teaching and teaching activities of Dr. Petko Karagyozov are expressed in training of students and residents in the field of gastroenterology and gastroenterologists (continuing education). According to the study employment report of Assoc. Prof. P. Karagyozov, as a part-time lecturer at the Faculty of Medicine of Sofia University "St. Kliment Ohridski", it can be seen that for the period 01.01.2021 - 01.12.2024, the candidate has realized a teaching workload of 977.5 teaching hours. For the period 01.01.2020 - 31.12.2024, Assoc. P. Karagyozov has implemented a teaching workload with postgraduate students in the amount of 1415 equivalent hours.

Assoc. Prof. Petko Karagyozov is an active member of a number of international organizations:

- European Society for Gastrointestinal Endoscopy (ESGE)
- American Society for Gastrointestinal Endoscopy (ASGE);
- Fellow of ASGE (Fellow of the American Society for Gastrointestinal Endoscopy-FASGE) since 02.2021
- Member of the Bulgarian Scientific Society of Gastroenterology
- Member of the Management Board of BSGE since 2018.
- Member of the European Cholangioscopy Study Group (ECG)
- Member of the European Endoscopic Ultrasound Group (EGEUS)
- BDGE Representative at the UEG Meeting Of Members (since April 2021)
- Trainer in cholangiopancreatoscopy with SpyGlass DS system, Boston Scientific for Eastern Europe.

- Chairman of the Commission for the provision of biological therapy in patients with ulcerative colitis and Crohn's disease at

Acibadem City Clinic University General Hospital Tokuda Ltd., Sofia

- Reviewer for Gastrointestinal Endoscopy(GIE); Therapeutic Advances in Gastroenterology, World Journal of Gastrointestinal Endoscopy, EUGW

The candidate's creative achievements and the scientific-applied contributions are impressive and have important significance for the development and level of gastroenterology and in particular gastrointestinal endoscopy in Bulgaria. I think the most significant of them are:

- 1. Introduction of new endoscopic methods for examination and minimally invasive treatment of a wide range of diseases and iatrogenic conditions in gastroenterology. Assoc. Prof. P. Karagyozov was the first in the country to introduce single-operator endoscopic cholangiopancreatography into practice and the associated possibilities for examination and minimally invasive methods for treatment of the biliary system and pancreas.
- 2. Assoc. Prof. P. Karagyozov is one of the pioneers of EUS, being the first to introduce a number of diagnostic and therapeutic techniques based on this method: echoendoscopic hepaticogastrostomy and choledochoduodenostomy, while analyzing the advantages and disadvantages in comparison with the "classical" endoscopic and percutaneous drainage methods
- echoendoscopic pancreato-gastrostomy
- echoendoscopic gastro-entero anastomosis
- for the first time in the country describes and further develops the technique for echoendoscopic liver biopsy in focal and diffuse

liver diseases.

- 3. Develops and implements in practice minimally invasive methods related to:
- management of iatrogenic lesions of the GIT and the biliary system
- endoscopic treatment of peripancreatic cysts and necrotic collections

Assoc. Prof. P. Karagyozov is a well-established gastroenterologist with extensive theoretical training, excellent practical skills and an established place in the medical academic community.

Considering the relevance of the presented scientific works (publications, monograph, educational materials), meeting the required scientometric indicators, the active teaching and learning activity, the previous performance in a professional and academic aspect, I believe that the candidate, based on the information presented in the attached documents, meets the requirements of the Regulations for the Development of the Academic Staff of the Acibadem City Clinic University General Hospital Tokuda Ltd., Sofia.

Conclusion: I give my positive assessment and propose to the Honorable Jury to vote "YES" for Assoc. Prof. Petko Ivanov Karagyozov, D. M. to occupy the academic position of "PROFESSOR" in the scientific specialty "Gastroenterology" for the needs of the Gastroenterology Clinic of Acibadem City Clinic University General Hospital Tokuda Ltd., Sofia.

10.05.2025, Sofia

Prof. K. Katsarov, MD, PhD, DSc