

## REVIEW REPORT

By Prof. Dr. Krum Sotirov Katzатов, PhD MD

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**Regarding:** Competition for an academic position “Professor” in the field: Higher Education 7. Healthcare and Sport and in the professional field 7.1. Medicine and scientific specialty “Gastroenterology” for the needs of the Gastroenterology Department of Acibadem City Clinic UMBAL Mladost, announced in the State Gazette, issue 6 from 28.03.2021.

**Candidate:** Assoc. Prof. Dr. Stoyan Stefanov Handzhiev MD, Head Dept. Gastroenterology, Acibadem City Clinic UMBAL

Assoc. Prof. Stoyan Handzhiev graduated with medicine from the Medical Academy in 1978. After his graduation, he started an Internship in Internal Diseases in the Higher Military Medical Institute in Sofia. In 1980, after a competition, he is appointed Clinical Ordinator in Internal Diseases to the Military Field Therapy of the Military Medical Academy in Sofia. Then he consecutively took the positions: assistant, head assistant and chief assistant in the Clinic of gastroenterology and hematology of MMA. Between 1989 he was Head Department of the Clinic of Internal Diseases – Lozenets Clinic Base, and from 2016 onwards – Head Department of Gastroenterology, Acibadem City Clinic UMBAL.

Assoc. Prof. St. Handzhiev has three specialties – Internal Diseases /1984/, Military Field Therapy /1987/ and Gastroenterology and dietetics /1988/.

He defended a Dissertation on “Diagnostic and Therapeutic percutaneous procedures upon some diseases of the gastrointestinal tract” in 2013. He received the academic position “Associate Professor” in 2015.

He is the author of the postgraduate training programs for standard and interventional ultrasound for the Military Medical Academy/Sofia University. As an expert in this area, he leads courses and participates in Examination Committees, related to the diagnostic/therapeutic application of ultrasound methods in the field of internal diseases and gastroenterology.

Assoc. Prof. Stoyan Handzhiev is a leading specialist in the field of so-called interventional ultrasound – invasive diagnostic and therapeutic procedures under ultrasound or combined ultrasound/X-ray control in diseases of the hepato-biliary system and gastrointestinal tract.

He participates in the popularization of the contrast-enhanced ultrasound methods for examination and introduced in clinical practice the intraductal contrast-enhanced percutaneous cholangiography in patients with counter-indications for X-ray assisted procedures. The therapeutic approaches in the so-called refractory to treatment ascites are the other focus of the work of Assoc. Prof. Handzhiev. He participated in the introduction of two innovative methods: Peritoneal re-infusion of ascitic liquid /PRAT/ and ALFA /low-debit pump system for ascites evacuation/ in clinical practice. Assoc. Prof. is a leading specialist in the application of the ablation procedures for treatment of primary and metastatic diseases of the liver.

He has excellent command in English, German and Russian languages.

He is a member of the following professional and scientific organizations:

- European Association for the Study of the Liver (EASL)
- American Association for the Study of Liver Diseases (AASLD)
- Bulgarian Gastroenterological Fellowship
- Bulgarian Association for Ultrasound in Medicine (BAUM)
- Bulgarian Doctors Union

Assoc. Prof. Stoyan Handzhiev has specialized in leading centers for gastroenterology, interventional ultrasound and endoscopy in Germany, Denmark, the Netherlands, France and Austria.

All necessary documents corresponding in content and number to the Rules of Procedure for the conditions for receiving of scientific degrees and for taking of academic positions in the Bulgarian Academy of Sciences for participation in a competition for taking the academic position of "Professor" for Acibadem City Clinic UMBAL are present.

**The scientific and research activities** of Assoc. Prof. Stoyan Handzhiev is based on his daily work as a gastroenterologist with high qualification and professionalism. He takes part in the present competition with 48 publications in Bulgarian and foreign periodicals, out of which – one Monograph and two participations in textbooks with separate own chapters, as follows:

Medinfo	-	5
Medicart	-	5
Diagnostic and therapeutic ultrasound	-	11
European Journal of Ultrasound	-	4
European Journal of Hepatology	-	1
Hepatology	-	1
Medicall	-	3
Bulgarian Oncologic Fellowship	-	3

The monograph “Locoregional therapies upon primary and metastatic tumors of the liver” is a valuable guide for post-graduate doctors and specialists in Gastroenterology, Oncology and Surgery, where the author analyses and summarizes the contemporary achievements and shares his rich personal experience in this field. The candidate has participated in 40 congresses, 25 – in Bulgaria and 15 – abroad and he is a first author in a total of 62% of them. Among his scientific activities are 10 published articles in prestigious European periodicals (co-authorship), with a high Impact Factor of 108.524. In the Scopus Base 131 citations can be found.

The scientific production of Assoc. Prof. Stoyan Handzhiev reflects his versatile scientific interests in the field of gastroenterology and hepatology, interventional ultrasound, upper and lower endoscopy, oncology, application of the so-called combined (endo/echo and X-ray) methods upon diagnostics and treatment of gastrointestinal tract and hepatobiliary systems diseases. Among the main preconditions for this versatile scientific production is the undisputed professionalism of the candidate, related to the excellent command both of the theoretical basis of gastroenterology and hepatology as well as of the details of echographic and endoscopic techniques.

Impressive is the research for the place, advantages and disadvantages of the main imaging techniques (US, CT, MRI) in the diagnostic algorithms of the diseases of the gastrointestinal tract, hepatobiliary system and pancreas. For the most part of his works a critical analysis and comparison of the cited literature data is present. These results are in direct relation with the candidate’s ability to work and “fit in” the multidisciplinary teams of the medical facilities that he works in.

The Authors Report for the scientific contributions of Assoc. Prof. Stoyan Handzhiev is a logical result of his work; I have no remarks on them. I would like to outline just some of the most significant contributions:

- Elaboration of a standardized algorithm (fiche) upon performance of the main diagnostic and therapeutic interventional procedures under ultrasound or combined (ultrasound/endoscopic/X-ray) control in gastroenterology and hepatology – upon liquid collections in the liver, pancreas, abdominal cavity and retroperitoneum, in cholestasis and abscess drainage, hematomas and bilomas.

- Analysis of the cause, results and treatment options for complications, result from percutaneous invasive diagnostic and therapeutic procedures upon gastrointestinal tract and hepatobiliary system diseases.
- Introduces the intraductal percutaneous contrast-enhanced ultrasound as an alternative to the percutaneous X-ray assisted cholangiography as well as a diagnostic option for patients with counter-indications for performance of procedures under X-ray control.
- Applies and analyses the results of the so-called locoregional therapies for treatment of primary and metastatic liver tumors with number of patients and results comparable to those of the leading European centers.
- For the first time in Bulgaria, with a contribution for the European practice, PET/CT is applied as an exact and specific method for monitoring of the therapeutic effect after radiofrequency ablation in liver metastases and the possibilities for early tumor recurrence detection and follow-up therapy individualization for those patients.
- Analysis of opportunities for ALFA (Low-debit pump system for ascites evacuation).

**According to the academic reference for the lecture load** for the 2015 – 2020 period, Assoc. Prof. St. Handzhiev has led 384 lecturing classes. The teaching and lecturing activities of the candidate include planned exercises and seminars for III and IV year students, trainees and post-graduate doctors in Internal Diseases and Gastroenterology to the Sofia University. He is heading five Gastroenterology post-graduate doctors.

These indications fully cover the requirements of for the teaching and lecturing activities for participation in a competition for the academic position “Professor” pursuant to the Rules and Procedures for taking of academic positions of Acibadem City Clinic UMBAL.

Assoc. Prof. Stoyan Handzhiev is an established doctor, gastroenterologist and interventionist, with a rich theoretic background, practical skills and a recognized place in the medical academic community.

Having in mind the topicality of the scientific research presented (publications, monograph, handbooks), meeting the required Scientometric Indicators, the active teaching and lecturing activities, the professional and academic performance up to date, I deem that the candidate, based on the document information presented, meets the requirements of the

