#### **REVIEW REPORT**

By Prof. Assen Dudov, MD, PhD

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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.

<u>Candidate:</u> Associate Professor Stoyan Stefanov Handzhiev, Head of Gastroenterology Clinic, Acibadem City Clinic Mladost

#### 1. Biographic data

Assoc. Prof Stoyan Stefanov Handzhiev was born in Sredetz, Burgas region, on 13.01.1951. He graduated with Medicine in 1978 in the Medical Faculty of Medical Academy Sofia, received extensive training in internal diseases, starting from Internship to Head of medical service, general troops doctor in Slivnitsa garrison, clinical ordinatior in internal disease in the field military therapy department of the Higher Military Medical Institute, assistant, head assistant, chief assistant in the Clinic of Gastroenterology and Hematology in the Higher Military Medical Institute.

Head Department of Gastroenterology Clinic in Clinical Hospital Lozenetz, a part of the Military Medical Academy; Head of Department in the Clinic of Gastroenterology of MMA, currently he heads the Clinic of Gastroenterology of Acibadem City Clinic UMBAL Mladost.

Assoc. Prof Stoyan Handzhiev has certified degrees in Internal Medicine, Military Field Therapy, and Gastroenterology. He specialized Internal Diseases in the Medical Academy of Sofia and Gastroenterology in ISUL. He has specialized abroad in the fields of Medical Management, gallstone disease, endoscopic ultrasound, interventional ultrasound, radiofrequency ablation, liver transplantation in Germany, the Netherlands, Denmark, and France.

## 2. Scientific research

Assoc. Prof. Stoyan Handzhiev presents himself with 48 scientific works after he received the Associate Professor position, 33 of them in Bulgarian periodicals in the field of Gastroenterology, one own Monograph and three co-works – one Monograph and two medical textbooks.

The candidate has presented reports in 23 Bulgarian Scientific meetings and 28 abroad.

The Bulgarian publications are in: Diagnostic and Therapeutic Ultrasound, Bulgarian Hepatogastroenterology, Medic Art, Medinfo, Bulgarian Onclologic Fellowship Journal, MediCall, Studia Oncologia.

The publications in foreign journals are in: Journal of Hepatology (1), New England Journal of Medicine (1), Hepatology (2), European Journal of Ultrasound (5), Molecular Imaging and Radionucleotide Therapy (1); with a total Impact Factor 108,524. The Bulgarian Diagnostic and Therapeutic Ultrasound Journal has an internal Impact Factor.

The attached SCOPUS Base report from the Central Medical Library shows 131 citations.

The scientific works of the candidate are in several directions with scientific application:

- 1. The candidate prepares a fiche for performance of percutaneous diagnostic and therapeutic procedures under ultrasound navigation with specification of indications, the obligatory preoperative examinations, possible complications, localization of target zone, the characteristics both in native and contrast-enhanced modes, information from other imaging diagnostics (CT, MRI, X-ray).
- 2. He has prepared an action algorithm with application of percutaneous procedures in liver abscess, cholestasis, biloma disease, hepatic and extrahepatic hematoma (11,31).
- 3. The introduction of intraductal percutaneous contrast-enhanced ultrasound as an alternative to percutaneous x-ray assisted cholangiogdaphy is a starting point for its introduction in the highly specialized daily practice. In his publications, the candidate emphasizes on the possibility for simultaneous application of echografic venous contrast with a better image of the tumor lesion in cholestasis and the possibility of simultaneous performance of biliary drainage and precision biopsy under US control. The advantages of this pilot project also determine the economization of the diagnostic and therapeutic process (4,31,38).
- 4. The publications related to the complications from the applied percutaneous and therapeutic procedures with US assistance have an original accent and are a result of thorough analysis, based on own experience with international literature (5,22,31).
- 5. The thorough examination and analysis of the biloma disease with an accent on cause and effect, predictive factors, determining the severity of development and timely staging of the drainage treatment, are in the basis of algorithm elaboration and comprise a significant part of the zone of interest of the candidate with scientific application (11,31).
- 6. The last five years of Assoc. Prof. Stoyan Handzhiev's practical and scientific activities have been marked by the close cooperation with oncologic experts within a Tumor Board in a state-of-the-art oncologic center in continuation of his cooperation with colleagues from the Military Medical Academy, Tzaritza Yoanna Hospital and other big oncotherapeutic hospitals. This cooperation has been presented in mutual elaborations within the recommendations and guidelines of the Bulgarian and international institutions with regard to the gastrointestinal stromal tumors (32,35); the epidemiology, diagnostics and therapy of colorectal carcinoma (26); pancreatic cancer.

An original contribution for the oncologic practice is the monitoring of occurrence and confirmation (imaging, histomorphological) of a second neoplasm, remote in time from the first one, with another localization, jointly treated in an oncologic center format. The performance of a second biopsy for determining of mutations in the cell profile of the metastasis predetermines an adequate

therapeutic response by the oncologic therapist. A model, presented during the Hepatology National Congress in 2018, developed in the format: oncologist/gastroenterologist; an elaboration of a protocol for therapeutic approach in chemo- and radiation-induced hepatotoxicity with application in the daily practice ensures successful continuation of the specific therapy.

A model for installation of a preventive gastric stoma prior to starting a radiotherapy for mouth and nasopharynx carcinoma has been prepared in cooperation with a radiotherapeutic collegium (presented during the Young Gastroenterologists Conference in March 2018).

The participation of Assoc. Prof. Handzhiev in a Tumor Board, in cooperation with an oncologist, a surgeon, a radiation therapist, an imaging specialist, a pathomorhologist, a nuclear expert, meets the requirements for application of locoregional methods of treatment of primary and metastatic liver tumors in accordance with the guidelines of the Bulgarian and international gastroenterological and oncological institutions (12,13,14).

A contribution for the oncologic practice is the integrated approach with application of locoregional therapies in the so called intermediate type of HCC (TACE, target chemotherapy, stereotactic therapy), in cooperation with a medical oncologist, radiation therapist, invasive cardiologist (13,34,37,40, Monograph – p.110, Oncology Textbook II Part).

An original contribution is also the jointly developed pilot project with a collective from the Nuclear Medicine Clinic for refining of the indications for locoregional therapy and monitoring with PET/CT (32,41).

Practically applicable are the publications and shared experience for the complications, related to TACE and RFA, their early identification and counteracting (43,44).

## 3. Lecturing Activities

Assoc. Prof Stoyan Handzhiev is an established lecturer for the Medical Faculty of the Sofia University St. Kliment Ohridski. During the last 5 years, he has 348 hours of lecturing, including practical exercises for third-year medicine students in the discipline "Propaedeutic of Internal Diseases"; and Internal Diseases - Gastroenterology for fourth-year students. During the 2020 – 2021 school year, he has led 60 hours of practice in Internal Diseases – Gastroenterology and 30 hours of Gastroenterology practice for fourth-year students in English.

During the last 5 years, Assoc. Prof. Handzhiev has been a Scientific Supervisor of four postgraduates and of two already received Gastroenterology Degree.

He is a PhD Supervisor for two "Doctor" degree specialists.

# 4. Scientific Membership

Assoc. Prof. Handzhiev is a member of:

- Bulgarian Gastroenterology Fellowship
- Bulgarian Association of Gastroenterologists and surgeons
- Bulgarian Association for Ultrasound in Medicine

- Bulgarian Association for Study of the Liver
- European Association of Ultrasound (EUROSON)
- European Federation of Societies for Ultrasound in Medicine (EFSUMB)
- European Association for Study of the Liver (EASL)
- American Association for study of the Liver (AASLD)

# **CONCLUSION:**

After a detailed assessment of the candidate's scientific activity, as well as his outstanding achievements on a national scale in the practical application of the approaches described in his works give me reason to strongly recommend Assoc. Prof. Dr. Stoyan Handjiev the award of the academic position "PROFESSOR".

Also, the documentation and the procedure comply with all legal normative acts, both on the part of the candidate and on the part of the Scientific Jury and the Scientific Council.

Personally, I add as a recommendation to evaluate the exclusive contribution of the presented monograph, which can be actively used as a textbook, which makes it even more valuable for the medical community.

Sofia Prof. Dr. Assen Dudov, MD, PhD 04/29/2021