

**To The chairman of the scientific jury,
determined by order
No. RD-269/15.09.2022
of the Rector of the University „Prof. Asen Zlatarov” – Burgas**

REVIEW

By

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Regarding: competition for the academic position "Associate professor" in the field of higher education 7. "Health and sport", professional direction 7.1. "Medicine" and in the scientific specialty "Gastroenterology", for the needs of the Department of Internal Medicine, Faculty of Medicine, University - Burgas, in accordance with the Order of the Chancellor of the University - Burgas No. RD-269/15.09.2022, announced in SG no. 45/17.06.2022.

In accordance with the Order of the Chancellor of the University - Burgas No. RD-269/15.09.2022 I have been elected an External member of the Scientific jury in the competition for the academic position "Associate professor" for the University "Prof. Asen Zlatarov" – Burgas, and have been appointed to prepare a review.

A single candidate has applied so far for the competition, namely Milko Bozhidarov Mirchev, MD, PhD.

The documents provided to me are in accordance with the Law on the Development of the Academic Staff of the Republic of Bulgaria (LDASRB) and the Regulations for its application and meet the requirements of the Regulations for the terms and conditions for acquiring scientific degrees and for holding academic positions at the University "Prof. Asen Zlatarov" - Burgas. There are no established procedural violations.

I declare no conflict of interest regarding Art. 4, para. 5 of LDASRB.

I. Biography and professional development of the candidate

Dr. Milko Bozhidarov Mirchev was born on October 4, 1977 in the city of Varna. He graduated from the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna in 2002. Dr. Milko Mirchev began his work experience as a full-time doctoral student at the Gastroenterology Clinic of UMBAL "St. Marina" - Varna. Since 2007, he has been appointed as a resident, and since

2011, he has been an assistant in the Department of Internal Medicine at the UMBAL "St. Marina" EAD-Varna. In 2013, he was elected as a senior assistant, and in 2014, as an associate professor at the same department. He acquired a specialty in gastroenterology in 2014. In 2011 he obtained the scientific degree "Doctor" in Gastroenterology after successfully defending his thesis "Role of microsatellite instability and promotor methylation of DNA in patients with colorectal cancer".

II. Scientific activity

Dr. Milko Mirchev, MD, participated in the current competition with the following scientific works:

Thesis for obtaining the educational and scientific degree "doctor" – 1. Monography entitled "Hereditary Neoplastic Syndromes in Gastroenterology" - 1.

Publications and reports published in scientific publications, referenced and indexed in international scientific databases (Scopus and Web of Science) - 9 items and publications published in non-refereed scientific journals with scientific review - 12 items. A total of 201 points (required minimum of 200 points).

According to the presented reference, six articles by Dr. Milko Mirchev have been cited a total of 25 times (all in articles by foreign authors). A total of 375 points (required minimum 50 points).

A total of 10 publications are in Bulgarian, and a total of 11 - in English. Dr. Milko Mirchev, MD, is first author of 11 publications, second author - on five, third and subsequent author - on five publications.

Dr. Milko Mirchev, MD, is a participant in four research projects at the Medical University "Prof. Dr. Paraskev Stoyanov"-Varna.

The publications presented by Dr. Milko Mirchev, MD, for participation in the competition fully correspond to the recommended quantitative criteria for occupying the academic position "Associate Professor" at the University "Prof. Dr. Asen Zlatarov" - Burgas according to the Regulations for the conditions and the procedure for acquiring scientific degrees and holding academic positions at the University.

III. Characteristics and contribution of the scientific papers

The research activity of Dr. Milko Mirchev, MD, is based on his clinical treatment and diagnostic experience as a gastroenterologist, with recognition from the Bulgarian scientific community and from patients with diseases of the gastrointestinal tract, liver, pancreas, etc.

The theoretical and applied contributions in the scientific works of Dr. Milko Mirchev, MD, are in the following main thematic areas: gastrointestinal tumors, probiotics, H. pylori infection, interventional endoscopy, inflammatory bowel diseases, etc.

The main areas of his research work are related to the modern diagnosis and treatment of tumors of the gastrointestinal tract.

The role of some molecular mechanisms, namely microsatellite instability (MSI) and promoter DNA methylation, for the localization, clinical course and prognosis in patients with colorectal carcinoma, are systematically analyzed in his thesis.

The largest Bulgarian study for the role of MSH and DNA methylation in 189 patients with CRC is being conducted, which compared two populations: Bulgarian and German patients. A quantitative method (pyrosequencing) was introduced to determine methylation and threshold values were determined for two of the studied genes - hMLH1 and CDKN2A(p16INK), above which there was complete blocking of their function. The existence of a group of tumors with simultaneous methylation of several genes (CIMP-phenotype) is confirmed and its clinico-morphological characteristics are determined. High-level DNA methylation was found to predominate in elderly patients. The notion that carcinomas with proximal and distal localization along the colon arise by different pathogenetic mechanisms is confirmed. The significance of MSH and DNA methylation as prognostic factors in CRC patients is proven.

Several publications, 4 in number, analyze the results of epidemiological studies in Bulgaria on the role of environmental factors for the risk of development of polyps and carcinomas in the esophagus, stomach and colon. One publication summarizes observational data in patients with small bowel tumors.

The remaining scientific papers (1 article each) are dealing with the following: the effect of the use of probiotics for the treatment of H. Pylori infection; acute pancreatitis as a complication of duodenal polypectomy; the incidence of latent and active TB infection in Crohn's disease patients on biological therapy; the pharmacodynamics and pharmacokinetics of the selective inhibitor Controloc for the treatment of peptic diseases; Protocol for orthotopic liver transplantation.

IV. Teaching activities:

Dr. Milko Mirchev, MD, participates in the training of medical students in the discipline "gastroenterology". As an associate professor at the Second Department of Internal Medicine, he led seminars and lectures for fifth year medical students, Bulgarian and English language training. He also conducted a pre-graduate internship for intern-doctors. He gave lectures in the Training course for residents in gastroenterology.

V. Membership in national and international organizations:

1. Member of the Steering committee of the Bulgarian society of Gastroenterology

2. Member of the European Society of Gastrointestinal Endoscopy (ESGE)
3. Member of the European Crohn's and Colitis Organization (ECCO)
4. Member of the Bulgarian Medical Union

VI. Summary:

Based on the scientific works of the candidate provided to me for review and analysis, I can confidently state that I vote positively for the election of Dr. Milko Bozhidarov Mirchev, MD, to occupy the academic position of "Associate Professor" in the scientific specialty "Gastroenterology" at "Prof. Dr. Asen Zlatarov" University - Burgas.

07.11.2022r.

City of Varna