OPINION

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Regarding: Competition for the academic position "ASSOCIATE PROFESSOR" in General and Clinical Pathology, in the field of higher education 7. "Health and Sports" professional direction 7.1. "Medicine", in the scientific specialty "General and Clinical Pathology", announced in " State Gazette" No. 7 / 23.01.2024 for the needs of the Department of "General and Clinical Pathology, Forensic Medicine and Deontology", MU-Vama and the Clinic "General and Clinical Pathology" at UMHAT "Sv. Marina" JSC, Varna.

By decision of a meeting of the FC of the Faculty of Medicine at MU-Varna according to protocol No. 18/11.03.2024 and by order No. P-109-100/22.03.2024 of the Rector of MU - Varna, I was elected as a member of the scientific jury, and according to protocol No. 1 of the first meeting of the Scientific juri, I am appointed to prepare an opinion on the procedure for occupying the academic position of "Associate Professor" in the specialty "General and Clinical Pathology" with an applicant according to the announced competition Hristo Boichev Popov, MD, PhD. assistant in the Department of "General and Clinical Pathology, Forensic Medicine and Deontology" at the Medical University of Varna. According to the regulation, the applicant has submitted a complete set of materials for the competition, on paper and on electronic media, including all the necessary documents specified in the Regulations for the conditions and procedures for acquiring scientific degrees and occupying academic positions at the Medical University - Varna.

I. Brief biography and career development of Hristo Boichev Popov, MD, PhD

Dr. Hristo Boichev Popov was born on September 19, 1987 in the town of Provadia. In 2011 graduated from the Medical University - Varna - Master of Medicine and since then works at the "Sveta Marina" UMBAL EAD, the city of Varna, successively as: doctor – 03/11/2011 – 14/02/2012; physician assistant - 02/14/2012 - 08/01/2012, physician assistant specialist - 08/01/2012 - 06/12/2017, general and clinical pathology assistant doctor – 12/06/2017 – 06/15/2021 and from 06.15.2021 - chief assistant general and clinical pathology doctor. From 2017 to 2022, he was the head of the "Tissue Bank Osteocenter-Bulgaria" EAD program at UMBAL "St. Marina" Varna.

From 2012 to 2021 dr. Popov is an assistant in the Department of General and Clinical Pathology, Forensic Medicine and Deontology at the Medical University of Varna, and from 15/06/2021 - chief assistant in the same department. Dr. Popov has a specialty in General and Clinical Pathology since 2017. From 2014 to 2020, he is an independent doctoral student at the Department of "General and Clinical Pathology, Forensic Medicine and Deontology", specialty "Medicine". He is defending a dissertation in 2020 on the topic: " Prognostic and Predictive Morphological Factors in Urothelial Carcinoma of the Urinary Bladder".

Currently, Dr. Popov has over 10 years of work experience as a physician and as a university lecturer in the specialty "General and Clinical Pathology". He teaches students from various specialties at the MU-Varna. Dr. Popov takes active part in the diagnostic process of the General and Clinical Pathology clinic at Sveta Marina university hospital. In order to improve the quality of the diagnostic process, Dr. Popov took part in a number of courses and seminars in the field of nephropathology, uropathology, diseases of the thyroid gland, transplantology, etc.

Dr. Popov is a trained pathology teacher, gives seminars and selected lectures to medical, dental and pharmacy students. There have been courses related to improving the teaching process: " Pedagogical qualification of trainers from medical institutions" and "Pedagogical foundations of academic teaching".

The applicant has a very good command of English and a good computer literacy. He participated in a large number of national conferences.

Dr. Popov has participated in 2 research projects under the "Science" fund at the University of Varna, relating to:

- " Prognostic and predictive factors in carcinomas of the excretory system";
- "Predictive and prognostic role of immunohistochemical expression of apoptosis - inducing factor and RIPK3 marker for necroptosis in renal cell carcinoma";

Dr Popov is a member of the Bulgarian Medical Association, the Bulgarian Fellowship in Pathology and the Renal pathology society.

II. Description of the scientometric indicators of Dr. Popov, PhD

In the competition for Associate Professor, Dr. Popov participates with 28 publications, of which 10 publications were equivalent to a monographic work and 18 scientific full-text publications that aren't related to his PhD dissertation thesis. According to the Academic reference No. 871 / 17.10.2023, 19 of the publications are referenced and indexed in Scopus and Web of Science. Nine publications are in non-refereed peer-reviewed journals.

There are 19 scientific reports from national and international forums.

The PhD dissertation thesis for ESD "Doctor" on the topic: "Prognostic and Predictive Morphological Factors in Urothelial Carcinoma of the Urinary Bladder" was assessed by SJ. This meets Criterion A of the minimum requirements for occupation of academic position "Associate Professor", LDASRB.

The total number of points from the 10 publications equivalent to a habilitation thesis presented is 102.57, with a required minimum of 100 points, i.e. it meets criterium B of the minimum requirements for holding an AP "associate professor" according to the LDASRB.

The total number of points from the indicators Г5 till Г9 of the presented 15 full-text publications in scientific collections and journals other than those for acquiring the ESD "doctor" is 237.95 (with a required minimum of 200 points), 166.67 pts from referenced, and 871.28 pts of publications in non-referenced journals and collections. Criterion Г of the minimum

scientometric requirements for holding the position of associate professor has been met.

In nine /9/ of the presented publications Dr. Popov is the first author.

According to the reference submitted by the library of MU-Vama, 10 citations of Dr. Popov's scientific works were found in international scientific journals, referenced and indexed in world-renown databases with scientific information /WoS & Scopus/. The indicated citations under indicators Д10-12 carry a total of 150 points, with a minimum requirement of 50 points, with meets criterion Д.

III. Assessment of the contributions of the scientific works of dr. Popov, PhD

The main contributions in the scientific works of Dr. Popov refer to those related to the dissertation thesis, and contributions to the other publications submitted for the competition for "associate professor".

The contributions of the dissertation thesis:

Three original contributions stand out:

- A morphological evaluation of a large group of urothelial carcinomas interpolated to local recurrence propensity was performed.

- The dependence between the density of TATE, mast cells and the occurrence of local recurrence has been proven.

- An exemplary morphologic profile of recurrent urothelial carcinoma is proposed.

The contributions of the submitted publications:

Scientific and original contributions

- Г 7.5 Cases with urothelial carcinoma of the bladder were analyzed, evaluating the expression for FGF2, indicating the invasive potential. The results of the study of the interactions between the tumor and the extracellular matrix in terms of FGF2 expression is promising, at least in urothelial bladder malignancies and invasive potential.

- Г 7.6 The study examined bladder urothelial carcinoma cases that were labeled with anti-SK20 antibody, finding a strong statistical correlation between expression levels and tumor differentiation. It has been shown that SC20 expression can be used to distinguish low-grade from high-grade tumors.

- Г 7.8 Cases with stage pTa and pT1 urothelial carcinoma were studied. The immunohistochemical expression of GATA3 was evaluated using the H-score. The sensitivity of high expression levels of GATA3 in non-invasive bladder urothelial carcinoma and the association of high expression levels with the occurrence of local recurrence, independent of sex, age, tumor differentiation and stage, are described.

Scientific and applied contributions

Г 7.1 A rare case of a perirenal tumor with non-Hodgkin's lymphoma morphology, originating from the renal capsule and infiltrating the soft tissues, is presented. Primary lymphomas of such origin described in the literature are less than 1%.

- Г7.2 Two cases of renal tumors with squamous cell morphology but with different histogenesis and immunophenotype are described. Accordingly, one is a squamous cell renal carcinoma and the second is a primary leiomyosarcoma of the kidney. Primary leiomyosarcomas of the kidney are rare, and an immunohistochemical profile for their differentiation is presented.

- Г7.3 A rare case of bladder adenocarcinoma developed on the basis of cystitis cystica et glandularis is presented. Primary adenocarinomas of the bladder described in the literature are less than 1%.

- Г7.4 Patients with metastatic colorectal carcinoma receiving first-line 5-Fu-based chemotherapy with/without bevacizumab were studied. The study showed that adding bevacizumab to 5-Fu-based chemotherapy improved PFS in patients with metastatic colorectal cancer. Tumor NP-1 expression is a potential biomarker for predicting clinical outcome in patients with metastatic colorectal carcinoma treated with first-line chemotherapy plus bevacizumab.

- Г7.7 A case with a rare localization of squamous cell tumor on the right lateral edge of the tongue is presented. An immunohistochemical pattern has been proposed to differentiate it from squamous cell (sarcomatoid) carcinoma.

- Г8.1 A rare case is presented with cutaneous form and hepatic involvement of sarcoidosis, IgA deposits in the dermis, and a strong positive IgA anti-tissue transglutaminase antibody reaction. This case supports the hypothesis of common immune pathogenic factors in gluten-sensitive diseases and sarcoidosis. It is concluded that co-occurrence of celiac disease and sarcoidosis is rare but should not be underestimated.

- Г8.2 An experiment was conducted with animals fed a high-fat, high-fructose diet. Liver histological changes consistent with steatosis were found, and these changes were more pronounced in the groups treated with vitamin K2 and K1. It was determined that in animals with diet-induced metabolic syndrome, treatment with vitamin K1 and K2 did not produce the expected morphological evidence of improvement, even tending to worsen liver changes.

- Г8.3 A rare case of pheochromocytoma of the adrenal gland and mixed epithelial and stromal tumor of the renal pelvis is presented. Only about 200 cases of mixed epithelial and stromal tumor have been described in the literature, and no other description of the coexistence of mixed epithelial and stromal tumor of the kidney and pheochromocytoma has been found.

- Г8.4 A review of cases with autopsy-proven ARVD is presented. Intramyocardial adipocytes and cardiomyocytes in ARVD have been found to express NGF/TrkA and NT-3/TrkC, suggesting that they may play an essential role in life-threatening electrical instability of the myocardium.

- Г8.6 rare case of pleomorphic adenoma arising from the glands of Moll in the eyelid is presented, with emphasis on histological aspects, diagnostic approach, and treatment.

- Г8.7 This review article provides an in-depth analysis of some morphological and immunohistochemical prognostic and predictive factors in urothelial carcinomas. Attention is focused on the search for new markers involved in the process of angiogenesis, cell proliferation and differentiation, as well as the occurrence of local recurrence.

- Г8.8 This article reviews the histological changes in the lungs in COVID-19 virus infection, focusing on the histopathological aspects of the lung disease in order to better understand the impact of the virus on the body and to identify possible future complications after infection. The dynamics of early and late lung changes in coronavirus lung injury were determined.

The contributions' reference of the scientific works and the self-assessment of Dr. Popov in relation with his application to the competition for associate professor show broad and deep knowledge in various areas of clinical pathology.

The overall impact factor of Dr. Popov is 17.691. (Academic Reference No. 871 of 17.10.2023).

IV. Assessment of the scientific teaching and diagnostic activities of Dr. Popov, PhD

Over the years, Dr. Hristo Popov established himself as a university lecturer with extensive pedagogical and professional experience. His average annual workload is between 232 and 306 hours, with a normative of 220 hours. Dr. Popov gives seminars for students of medicine, dentistry, pharmacists, a larger part of his workload is related to seminars for medical students. Over the last few years, he gave selected lectures to students from various specialties. He shares his rich experience in the field of clinical pathology with his interns and colleagues from the General and Clinical Pathology Clinic at UMHAT "Sveta Marina", Varna. He actively participates in the preparation and conduct of courses organized by the Department and the Clinic of General and Clinical Pathology.

Conclusion

The materials presented in the competition by Dr. Hristo Boichev Popov, MD, PhD give me reason to believe that, according to the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for the Implementation of the LDASRB and the

Regulations for the development of the academic staff at MU-Varna, the applicant meets the conditions for occupation the academic position of "Associate Professor" in General and Clinical pathology. I express my positive assessment and recommend to the respected Scientific Jury to award Hristo Boichev Popov, MD, PhD in "Pathology and Cytopathology", the academic position of ASSOCIATE PROFESSOR in "General and Clinical Pathology", professional direction 7.1.- Medicine, for the needs of the Department of General and Clinical Pathology, Forensic Medicine and Deontology at the Faculty of Medicine at MU-Varna.

May 27, 2024

Varna /Assoc. prof. Emilia Mihailova Kaisheva, MD, PhD/