

## Opinion

by Prof. Dr. Hristo Stoyanov Bozov, MD  
Dean of the Faculty of Medicine,  
University "Prof. Dr. Asen Zlatarov" - Burgas,  
of the materials submitted for participation in a competition for the occupation of an academic position "associate professor" in the field of higher education 7. Health care and sports, professional direction 7.1. Medicine, scientific specialty "Cardiology"

Subject: Competition for the occupation of the academic position of Associate Professor in the field of higher education 7. "Health and Sports", professional direction 7.1 "Medicine", by scientific specialty 03.01.47. Cardiology announced in SG No. 45, dated 17.06.2022, for the needs of "Prof. Dr. Asen Zlatarov" University.

Two candidates were admitted to the competition - Dr. Konstantin Mihailov Kostov, MD and Dr. Liliana Georgieva Mircheva, MD.

The review was prepared in accordance with the requirements of the Law and the Regulations for the Development of the Academic Staff in the Republic of Belarus and the Regulations for the Development of the Academic Staff of the BU- "Prof. Dr. Asen Zlatarov" for the terms and conditions for holding the AD" Docent.

When reviewing the submitted documents, I declare that I have no conflict of interest with respect to the candidates who submitted the documents. No gaps were found in the tender documentation and the materials submitted to me for an opinion.

### **Brief biographical details of the applicant**

Dr. Konstantin Mihailov Kostov was born in 1986 in Pleven. In 2009, he graduated with a bachelor's degree at Michigan State University, USA, majoring in "Human Physiology", and in 2015 completed a master's degree in "Medicine" at the "Medical University - Pleven, (diploma N 248028/2015). In 2015 begins specialization in the specialty "Cardiology" at UMBAL "Dr. G. Stranski" - the city of Pleven, which he successfully acquired in 2020 (diploma N 094190) In 2021 successfully defended a dissertation on the topic "Comorbidity, risk profile and biomarkers in hospitalized patients with heart failure" In the period after graduation, he engaged in scientific and clinical work, as well as teaching activities at UMBAL "G. Stranski".

Dr. Lilyana Georgieva Mircheva graduated in medicine in 2004 in MU of Varna. In 2013 acquired the specialty "Cardiology", and in 2017 scientific and educational degree medical doctor on the topic: "Optimization of care of patients with heart failure after discharge". In the period 2013-2022, she was an assistant in Cardiology at the Department of Internal Medicine of the Medical University of Varna.

### **Scientific and teaching activity**

Dr. Kostov participated in the current competition with:

1. 11 publications in scientific journals that are indexed in global databases. The publications with which Dr. Kostov defended his dissertation are not included in the current competition.
2. 25 publications and reports in peer-reviewed journals.
3. 1 participation in a scientific forum abroad

4. 2 participations in scientific forums in our country
5. 4 participations in scientific projects in our country.
6. 4 participations in scientific conferences in our country
7. Citations in databases Web of Science and Scopus 10556
8. Dr. Kostov has a study load of 1544.4 hours for the period 2016-2022.
9. The candidate's H-index is 2.

Dr. Mircheva participated in the current competition with:

1. 8 author publications in full text indexed in Scopus and Web of science databases
2. 1 monographic work
3. 3 chapters of a collective monograph
4. 14 publications and reports published in non-refereed peer-reviewed journals
5. Has not participated in scientific research projects
6. Does not provide a CMB reference
7. Dr. Mircheva has a general work experience as an assistant and chief assistant at the First Department of Internal Medicine at the Medical University of Varna for 9 years and 1 month. In 2021, she was elected as an associate professor in the scientific specialty "Cardiology" at the First Department of Internal Diseases, Department of Cardiology at the Medical University - Varna.

#### **Main scientific interests and contributions:**

Dr. K. Kostov's dissertation on the topic: "Comorbidity, risk profile and biomarkers in hospitalized patients with heart failure" is a study in which Dr. Kostov touches on the importance of non-cardiac comorbidities and their role in the course of heart failure. For the first time in Bulgaria, he studied IL-18 in patients with HF, as well as an inflammatory marker and a marker for cardiomyocyte apoptosis. Also, his own original contribution was the definition of a threshold value of IL-18, above which the frequency of rehospitalizations increases.

A large part of scientific publications are related to HF, arterial hypertension, as well as DM and metabolic syndrome - regarding the frequency and classification of metabolic syndrome among clinically healthy people.

Publications related to the analysis of the risk profile, comorbidity and prognosis in patients with HF with preserved, intermediately reduced and reduced EF are also important in relation to HF, analyzed the levels of ana NT-proBNP, in patients with heart failure and preserved LV function, IL-18, as a prognostic biomarker in HF patients, cystatin C, as a marker of kidney damage.

Publications related to the analysis of the exchange of elastin, collagen, matrix metalloproteinase-12, matrix metalloproteinase-3 inhibitor and the analysis of the imbalance of angiotensin-2 in patients with DM and AH are of contributing importance in relation to AH.

Dr. Mircheva's contributions can be divided into several areas:

1. Heart failure;
2. Cardio-oncology
3. Hyperuricemia
4. Iron deficiency
5. Valve diseases
6. Imaging diagnosis of ischemic heart disease
7. Pulmonary thromboembolism
8. Infective endocarditis

In the field of HF Dr. Mircheva's interests are focused on diagnosis, treatment, follow-up and the reasons for hospitalization in patients with HF.

In the field of "Cardio-oncology", the candidate pays attention to the cardiotoxic effect of chemotherapeutic agents.

Dr. Mircheva's scientific interests in the field of "Infective Endocarditis" are mainly focused on the follow-up and treatment of this type of patient.

In the "Hyperuricemia" direction, it mainly deals with the increased cardiovascular risk in patients with hyperuricemia.

In the "Iron Deficiency" direction, Dr. Mircheva discusses the role of iron deficiency in terms of deterioration and prognosis in patients with HF.

In the field of "Valvular Diseases", Dr. Mircheva makes a brief outline of the diseases of the mitral valve.

In the section "Imaging diagnosis of CHD" and "Pulmonary thromboembolism", the candidate has only one publication, which also applies to the areas "iron deficiency and valvular diseases".

Fulfillment of the minimum requirements for occupying AD "Docent" of the Ministry of the Interior

1. Dr. Konstantin Mihailov Kostov Ph.D has 595.56 t. according to the minimum scientometric criteria
2. Lilyana Georgieva Mircheva, Ph.D has 643.74t according to the minimum scientometric criteria.

**Critical notes:**

From the documents presented to me for review by Dr. Kostov, it can be seen that he is a young scientist with potential for development. His research interests are mainly in the field of cardiac damage markers. With recommendations for broadening the scope of scientific interests. Doctor Kostov has been busy in recent years as a holding AD "assistant" and "chief assistant". From the reference from the CMB it is clear that the candidate has 10556 citations in databases. Personal h-index 2.

From Dr. Mircheva's documents, I get the impression that she could definitely be called an established professional. I hope she will expand her scientific interests in the future. As a critical note and a significant omission in the candidate's documents is the absence of a reference from a central medical library.

**Conclusion:**

Dr. Kostov can be characterized as a young scientist with a future in the field of cardiology, the good start of his career makes a good impression.

Dr. Mircheva is an established scientist and doctor with extensive practical experience in the field of Cardiology, her scientific interests are in the field of heart failure and the factors affecting the worsening of cardiac pathology, in support of this statement there is a monographic work on the topic: "Congestion and cardiac deficiency".

Given the above I will vote positively for awarding the academic position "Associate Professor" to Dr. Lilyana Georgieva Mircheva, MD in the field of higher education "Health and Sports", professional direction 7.1, "Medicine", in the scientific specialty "Cardiology" with code 03.01. 47, for the needs of the University "Prof. Asen Zlatarov".

24.11.2022.

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(prof. Bozov Hr., PhD)