

## OPINION

by

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Member of the Scientific Jury, designated by Order No. R-109-175 / April 23, 2021 by Prof. Dr. Valentin Ignatov, MD, PhD - Rector of Medical University Prof. Dr. Paraskev Stoyanov, Varna.

Subject: Competition for the occupation of the academic position Associate Professor in the field of higher education 7 Health and Sports, in the professional field 7.1 Medicine and scientific specialty "Cardiology" for the needs of the First Department of Internal Diseases, Faculty of Medicine at the Medical University of Varna and for the Second Clinic of Cardiology at the University Hospital "St. Marina" - Varna.

### **Brief information about the competition**

By order No. R-109-175/23.04.2021 of the Rector of the Medical University-Varna I was appointed to prepare an opinion. The competition was announced in the State Gazette No. 17/26 Feb 2021. Dr. Antonia Rumenova Kischeva is the only candidate. The procedure for announcing the competition is in accordance with the requirements of the Law for the Development of the Academic Staff in the Republic of Bulgaria / 05.05.2018 and with the Rules for the Development of the Academic Staff in the Medical University-Varna / 28.01.2021.

### **Short details of the applicant**

Dr. Antonia Kischeva completed her higher education in medicine in 1999 at the Medical University of Varna with very good marks. She started working as a general practitioner in Varna in 2002, and in 2008 consecutively worked as a resident-general medicine, resident-cardiologist until 03.2014 in First and Second Cardiology Clinics of UMHAT Sv. Marina in Varna. Since 2014 she was appointed an assistant professor, chief assistant professor in MU and in UMHAT Sv Marina, Varna. Dr. Kischeva has an excellent command of German and English languages.

### **Specialties acquired and postgraduate qualifications**

Dr. Antonia Kischeva has acquired specialties in General Medicine - 2007 and Cardiology - 2014.

### **Specializations:**

Qualification for Highly Specialized Activity Echocardiography – fundamental level 2014.  
Qualification for Highly Specialized Activity Echocardiography – expert level 2017.  
Specialization in Messina, Italy in echocardiography and transcranial Doppler in 2013.

### **Projects:**

She participated in a project financed by Medical Science Fund of MU-Varna in 2012-2016 on the topic: “Randomized clinical trial to evaluate the efficacy and safety of the addition to therapy of an aldosterone antagonist to reduce atrial fibrillation with restored sinus rhythm”. She has also participated in several clinical trials in Cardiology.

### **Professional Experience**

Dr. Antonyia Kisheva has devoted her interest for a long time in the internal medicine and Cardiology in particular, and she has now near 13 years dedicated to treating patients with heart diseases.

In terms of professional qualification, she fulfills the requirements for habilitation.

### **Research activity**

Dr. Antonyia Kisheva received her PhD degree in 2017 after successfully defending her dissertation on the topic: "Role of fibrosis and mineralocorticoid receptors blocking in atrial fibrillation".

In this competition, the applicant presented the following scientific data – 18 scientific publications ( of 68 in total):

- a monography work with a total volume of 192 pages on the topic: "Stroke through the eyes of a cardiologist" - 2020, 100 points.

- Publications:

A. To cover the minimum state requirements by the Law from 2018 and the Rules of MU-Varna / 2021: **264,07 points**.

o In scientific publications, abstracted or indexed by world famous databases WOS or Scopus: in full text – 4, abstracts in scientific journals – 3, **total 7**. Of them, with Impact Factor are 4, total IF 9,678.

o In non-refereed scientific peer-reviewed journals or in published collective volumes: full text – 7, abstracts in scientific journals – 2, **totally 9**.

o Chapter in a collective monograph - 0.

B. Articles in non-refereed journals with scientific review beyond the required minimum state requirements - 1.

- Publications participating in previous contests which are not reviewed - 11.
- Participation in international scientific events – 19, national and regional scientific events - 21.

Number of citations: total **8**: 2 in abstracted or indexed by world famous databases scientific journals, 1 in monography or peer-reviewed collective volumes, 5 in peer-reviewed non-referred: **65 points in total**.

Dr. Kischeva is an individual author in 4 publications, first author in 10, second author in 2 and third and subsequent in 3 of all scientific papers.

Thus, the publication activity on this indicator fulfills the minimum state requirements of the Law and of the Regulations of the Medical University of Varna for acquiring the academic position of Associate Professor.

### **Scientific achievements and contributions**

Dr. Kischeva's main scientific interests are in the field of Cardiology and Neurology in 6 major directions.

1. Atrial fibrillation. (A1, D7.1-3, D7.5-6, D8.3, D8.6) Contributions are in the identification of risk factors for the development of AF - female gender, hypertension, hyperuricemia, the latter being one of the few in the world. The role of fibrosis in the development of AF is evaluated by studying a specific biomarker Galectin 3. For the first time in Bulgaria, Galectin 3 is studied in patients with such a disease and one of the few in the world, establishing higher levels compared to healthy. A link between Galectin 3, AF and coronary calcium score is sought. For the first time, the effect of the mineralocorticoid receptor antagonist spironolactone on the frequency and recurrence of AF was experimentally tested.

2. Cardiac fibrosis (G8.1-2, G8.5) For the first time in Bulgaria, the role of the biomarker for fibrosis Galectin 3 was studied. It has been studied in connection with a number of other factors, such as hypertension, age, sex, gout, renal function. For the first time in the world, a link between the levels of Galectin 3 and the CHA2DS2-VaSc score in patients with AF has been sought. The effect of spironolactone on Galectin 3 levels was also monitored.

3. Neurology and stroke. (B3, D7.7, D8.4, D8.9) An algorithm has been developed for cardiologists to diagnose ischemic stroke of non-deterministic origin, as well as a protocol for joint cooperation of cardiologists and neurologists in the diagnosis and treatment of stroke. Risk factors for stroke of non-determined origin have also been studied.

4. Ultrasound diagnostics (G8.7, G8.8) - for the first time in the cardiology practice in our country, TCD with contrast is used for diagnosis of right-to-left shunt.

5. Heart failure - one of the first studies in our country to clarify the prevalence and role of iron deficiency in patients with heart failure.

6. Atherosclerosis (G7.4). The role of atherosclerosis in the development of AF is studied.

Dr. Kisheva has been awarded twice for her scientific searches: the best clinical case and for best poster presentation at scientific events in Bulgaria. She is a member of the Board and Secretary of Association Heart-Lung

**Educational and teaching activities:**

Dr. Antonyia Kisheva was selected as a full-time Assistant Professor at the Department of Internal Medicine of the Medical University of Varna, in 2014, and since 2018 she is a Chief Assistant Professor in the First Department of Internal Diseases, MU-Varna. For some time, she served as an administrative Asst. Prof of Educational Sector Cardiology in the First Department of Internal Diseases.

A record of teaching workload over the last 5 years indicates mean teaching load 187 hours (between 146 and 212 hours) of practical training and lectures with Bulgarian-language and English-language medical students, as well as in theoretical education of specializing physicians in Cardiology.

According to this indicator, Dr. Kisheva fulfills and exceeds the required minimum according to the Law and the Regulations for Academic Development of MU-Varna.

**Conclusions:**

Dr. Antonyia Kisheva is an established professional in the field of internal diseases and cardiology, with extensive knowledge and skills especially in the field of atrial fibrillation and stroke and of echocardiography, with excellent professional training and proven skills. She has accumulated teaching experience and is loved and respected by her students and colleagues. Her scientific output is sufficient in volume, covers the minimum state requirements and shows a variety of interests, publications are in different journals. It complies with the requirements of the Academic Staff Development Act in the Republic of Bulgaria and the Rules for the Academic Staff Development in the Medical University of Varna. This gives me reason to recommend to the honorable members of the scientific jury to vote positively for of the academic position of Associate Professor to Dr. Antonyia Rumenova Kisheva, MD.

15.06.2021

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/Prof. Dr Yoto Trifonov Yotov, PhD/