

## REVIEW

Regarding the procedure 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, announced in StateGazette,issue17/26.02.2021.

Candidate – one: Dr.Antoniya Rumenova Kischeva, PhD, Assistant Professor at First Department of Internal Diseases - Educational Sector of Cardiology and Cardiologist at the Second Clinic of Cardiology at the University Hospital "St. Marina"- Varna.

Reviewer: Prof. Dr. Nikolay Yordanov Penkov, PhD, DSc, Executive Director of the Cardiology Hospital-Varna, Bulgarian Cardiac Institute.

**Dr. Kischeva** was born on 10.08.1974 in Varna. She graduated in Medicine in 1999 at Medical University-Varna. After graduating from 01.08.2001 until the end of 2001 she was working as a doctor in AGPPMP "ANIMATO", and from 01.01.2002 until 20.04.2008 in her own company as a General Practitioner. From 21.04.2008 to 12.03.2014 Dr. Kischeva was a resident physician at the Second Cardiology Clinic of the University Hospital- "St. Marina" at the beginning as a trainee, and later as a specialist cardiologist. After a successful competition on 13.03.2014, she was selected and appointed as an assistant professor in cardiology in the same clinic, and from 13.06.2018 until now she has been a senior assistant professor. Dr. Kischeva's total medical experience is 19 years and 4 months, of which approximately 13 years at the University Cardiology Clinic and approximately 7 years as a cardiologist.

**Dr. Kischeva** speaks two foreign languages - English and German.

**Acquired specialties.** She has two recognized specialties - "General Medicine" from 2007 and "Cardiology" from 2014.

**Postgraduate training and specializations:** She has specializations and certificates in Echocardiography- basic and expert level, since 2014 and 2017 respectively.

**Acquired scientific degree:**In 2017, Dr. Kisheva successfully defended a dissertation for the educational and scientific degree "DOCTOR" on the topic: "Role of fibrosis and blocking of mineralocorticoid receptors in atrial fibrillation".

**Membership and positions in scientific organizations:** She is a member of the Bulgarian Society of Cardiologists, the European Society of Cardiology, the Bulgarian Society of Echocardiography, the Heart-Lung Association - Varna, where she is a member of the Board and Executive Secretary of Heart-Lung Journal.

**Research activity:** Dr. Kisheva participates in the competition for the occupation of the academic position "ASSOCIATE PROFESSOR OF CARDIOLOGY" with a total of 73 scientific papers distributed as follows:

**Productions covering the minimum scientometric requirements for occupation of the academic position "ASSOCIATE PROFESSOR OF CARDIOLOGY":**

**Dissertation** for awarding a scientific and educational degree "DOCTOR" (1 Pc),

**Habilitation work** - monograph (1 pc),

**Publications in scientific journals**, referenced and indexed in world databases (7 pcs),

**Publications in unreferred journals** with scientific review or in collective volumes (9 pcs.). 264.07 p.

**Full-text publications** in scientific journals, outside the minimum scientometric requirements (1 pc.). 6.00 p.

**Scientific papers** used in occupation of academic degree "SENIOR ASSISTANT PROF" (7 pcs.)

**Publications** presented upon acquisition of the educational and scientific degree "DOCTOR" (4 pcs.).

**Publications** in journals with IF (3 pcs.) General IF 9.679

**Participation in National and international scientific forums** (40 pcs.).

In 4 of the presented works Dr. Kisheva is an individual author, in 46 - first, in 6 - second, and in the remaining 17 - third or subsequent. These data show that in the scientific production regarding the competition for academic degree "ASSOCIATE PROFESSOR" she has a decisive role.

**The scientific fields** in which Dr. Kisheva has worked and her scientific contributions are the following:

1. **Atrial fibrillation.** This is the main direction in the scientific research of Dr. Kisheva. The first study in Bulgaria was conducted to clarify the role of fibrosis in the development and maintenance of atrial fibrillation by monitoring a biomarker. Galectin-3 levels were checked and the use of spironolactone in patients with AF was prospectively examined. The role of hyperuricemia as a risk factor has been established and the relationship between coronary calcium score and Galectin-3 in patients with AF has been studied. The role of age, female gender and hypertension in the progression of AF was confirmed and it was confirmed that the baseline values of Galectin-3 in these patients were significantly higher compared to healthy individuals.
2. **Cardiac fibrosis.** The first study in Bulgaria was performed, revealing the role of Galectin-3 in cardiovascular diseases. The relationship between the values of Galectin-3 as a marker of fibrosis and gout has been established. The relationship between age, renal function, hypertension and Galectin-3 levels has been confirmed.
3. **Neurology.** A protocol for interaction between cardiologists and neurologists in the diagnosis and treatment of stroke patients has been proposed. A diagnostic cardiac algorithm for stroke patients has been developed and the role of risk factors for the occurrence of this severe neurological complication has been examined.
4. **Ultrasound diagnostics.** The role of contrast-enhanced transcranial Doppler for the diagnosis of right-left shunt has been studied.
5. **Heart failure.** The role of iron deficiency in the onset of heart failure and the therapeutic benefits of its correction were investigated.
6. **Atherosclerosis.** The role of coronary atherosclerosis as a risk for atrial fibrillation has been verified.

**Citations reflecting the candidate's scientific activity.** Dr. Kisheva has indicated a total of 8 citations of her scientific works. According to the submitted list, they concern 4 of her scientific works, evaluated with a total of 65 points.

**The candidate has active research profiles in:** Google Scholar, ResearchGate, Academia. edu and ORCID.

**Teaching.** According to data from the REPORT of MU-Varna № 112 -63/26. 03. 2021. Dr. Kisheva has 7 years of teaching experience, and her teaching load over the past 5 years has averaged 187. 4 hours per year.

**Participation in scientific projects.** In the period 2012-2016, Dr. Kisheva participated in the following project at the Medical Science Fund, Medical University of Varna: „Randomized clinical trial to evaluate the efficacy and safety of adding an aldosterone antagonist to therapy to reduce atrial fibrillation recurrences in patients with restored sinus rhythm”. She has also participated in several international multicenter studies.

**CONCLUSIONS.** Dr. Kisheva is a very well-trained doctor with two specialties - general medicine and cardiology with over 19 years of experience, of which over - 13 in the University Cardiology Clinic. She has the necessary qualifications and routinely uses almost all non-invasive cardiological methods in her daily work. She is a highly trained echocardiographer with considerable theoretical training and practical experience. Much of her daily medical activity is directly related to her scientific research and achievements concerning atrial fibrillation. This makes her a doctor with special training and practical experience in patients with this cardiac arrhythmia, often requiring quick and very precise solutions. In the current competition, the candidate participated with a total of 73 research papers, which were rated above the mandatory minimum for the position of Associate Professor. Her publications in journals with an impact factor carry a total of 9. 679. She is a member of the most popular Bulgarian and international scientific societies in the field of cardiology. She is a member of the Board of the Heart-Lung Association and of the Editorial Board of its journal. She has participated in a randomized clinical trial at the Medical Science Fund at MU-Varna and in several international multicenter studies. She is fluent in written and spoken German and English. Her teaching workload is sufficient in volume - she is involved in training students and interns. My personal impressions of Dr. Kisheva as a physician, teacher and researcher are excellent. In my opinion, she has the qualities to lead a scientific team and I believe that she fully meets all the requirements for the academic position of "ASSISTANT

PROFESSOR IN CARDIOLOGY". I will therefore vote in favour of this with a positive vote and recommend that the other members of the Scientific Jury do the same.

14.06.2021

Varna

Reviewer:

(Prof. Dr Nikolay Penkov, PhD, DSc)

A handwritten signature in blue ink, appearing to be 'N. Penkov', is written over the printed name of the reviewer.A horizontal line in blue ink is drawn above the signature.