REVIEW

From prof. Dr. Snezhanka Tomova Tisheva-Gospodinova, MD, Head of the Department of Cardiology, Pulmonology and Endocrinology - Medical University Pleven and Head of the Clinic of Cardiology, University Hospital "Dr. Georgi Strranski" -Pleven

Concerning a competition for the award of the academic position of "Associate Professor" in the field of higher education, professional field 7.1 "in the scientific specialty "Cardiology", code 03.01.47 for the needs of the First Department of Internal Medicine at MU- Varna University Hospital "St. Marina" - Clinic of Cardiology, announced in the State Gazette, no. 17/26.02.2021, and Order of the Rector of MU-Varna№ 109-175/24. 04. 21. A scientific jury of seven habilitated persons was appointed by this order.

Candidate - one: Dr. Antonia Rumenova Kisheva, Ph.

In reviewing the documents, I have found no evidence of plagiarism. I have no conflict of interest with the candidate.

Dr. Antonia Rumenova Kisheva was born on 10.08.1974 in Varna. Her education went through the following stages: 1999. Higher education - medicine; In 2007 she has acquired a specialty in general medicine; 2014 Acquired specialty "Cardiology"; 2017 "Doctor" in specialty: "Cardiology". Qualification: Her development as a physician began from 2002 - 2007 General practitioner; 21.04.2008 - 21.02.2014 trainee in Cardiology, Hospital "St. Marina EAD - Varna; 21.02. 2014 - 12. 03. 2014 r. cardiologist at Hospital "St. Marina EAD - Varna; 12.03.2014 - 13. 06. 2018 r. physician- Assistant Prof "Cardiology"; St. Marina EAD - Varna, Medical University Varna; 13. 06. 2018 - and continues to be a Senior Assistant Prof. General "Cardiology" at St. Marina EAD - Varna, Medical University Varna 2014. Certidfcation in Echocardiography - fundamental level; add. qualification: 2017 - Echocardiography - expert level.

Doctoral student at the Department of Internal Medicine, specialty "Cardiology" - "Role of fibrosis and mineralocorticoid receptor blockade in atrial fibrillation".

In her consistent training and growth, Dr. Kisheva acquired the ability to independently perform the entire process of clinical and instrumental diagnosis of heart disease in adults.

She participated in the project "Randomized clinical trial to evaluate the efficacy and safety of adding an aldosterone antagonist to the therapy to reduce atrial fibrillation attacks with restored sinus rhythm" at the Medical Science Fund, Medical University - Varna 2012-2016.

Dr. Kisheva is fluent in English and German Member of the Board of Directors of the Heart-Lung Association and Responsible Secretary of the Heart-Lung Journal.

I. RESEARCH:

In the competition for "Associate Professor" in Cardiology for Dr. Kisheva participated with the following scientific production:

- A total of 18 scientific papers are listed.
- dissertation for the award of PhD 1 pc.,
- monograph 1 pc.,
- 7 articles, refereed and indexed in world-renowned databases (Scopus and Web of Science),
- 9 articles in peer-reviewed journals, unrefereed in world-renowned databases of scientific information.
- Outside the minimum requirements, one article is submitted to a Bulgarian peer-reviewed journal, not referenced in world-renowned databases of scientific information.

The presented scientific papers are published in Bulgarian (4 pcs.), English (9 pcs.) and in bilingual journals - Bulgarian and English (6 pcs.). Of these, 4 publications were in journals with impact factor - International Journal of stroke IF 4. 882 (2020), Journal of Hypertension IF 3. 076 (2017), Journal of Interventional Cardiac Electrophysiology IF 1. 75 (2018) and Anatolian Journal of Cardiology IF 1. 223.

A total of 40 papers were presented at conferences, of which 19 were printed in abstract form in English and 15 in Bulgarian.

The participation of Dr. Kisheva in the peer-reviewed scientific works and publications is as follows: independent author or first author - 10; subsequent author - 6.

As of 20.04.2021. Dr. Kisheva's scientific works have been cited over 100 times in scientific publications, monographs and collective volumes, refereed and indexed in world-renowned databases (Web of Science, Scopus), as well as in non-refereed journals.

Eight of these were used as evidence that met the minimum scientometric requirements for the position of Associate Professor. Citations in scientific journals, refereed and indexed in world-known databases with scientific information are 2, citations in monographs and collective volumes with scientific peer review are 1 and 5 are citations in non-refereed journals with scientific peer review. The author's individual h-index is 3 according to Google Scholar.

The scientific research and applied activity of Dr. Antonia Kisheva is focused on the following scientific areas:

- 1. Atrial fibrillation
- 2. Cardiac fibrosis
- 3. Neurology
- 4. Ultrasound diagnostics
- 5. Heart failure
- 6. Atherosclerosis

SCIENTIFIC CONTRIBUTIONS

- 1. Direction atrial fibrillation
- For the first time in Bulgaria, the role of fibrosis in the development and maintenance of AF was investigated by biomarker testing.
- For the first time in Bulgaria and one of the first worldwide studies of Galectin-3 in AF.
- For the first time in Bulgaria and one of the first studies in the world, the use of spironolactone in people with AF was prospectively investigated.
- One of the first studies demonstrating the role of gout as an independent risk factor for AF was conducted.
- For the first time in Bulgaria and one of the first studies in the world on the relationship between AF, coronary artery calcium scoring and Galectin-3.
- The influence of age, female sex and arterial hypertension (AH) on the progression of AF has been confirmed.
- Higher baseline Galectin-3 values have been confirmed in patients with AF compared to healthy subjects.
 - 2. Direction Cardiac fibrosis
- For the first time in Bulgaria the role of Galectin-3 in cardiovascular diseases was investigated.
- One of the first studies in the world linking Galectin-3 as a marker of fibrosis to CHA2DS2Vasc score.
- For the first time worldwide, an association between Galectin-3 levels as a marker of fibrosis and gout has been established.

- A positive association was found between AH and Galectin-3.
- The relationship between age, kidney function and Galectin-3 levels has been confirmed.
 - 3. Direction Neurology
- A diagnostic algorithm performed by cardiologists in patients with ischemic stroke with undetermined source (ESUS) was developed
- Developed a protocol for collaboration between cardiologists and neurologists in the diagnosis and treatment of stroke patients
- A study has been conducted on the role of risk factors for stroke, especially in patients with ESUS
 - 4. Direction Ultrasound diagnostics
- Transcranial Doppler with contrast is used for the first time in Bulgaria in a cardiology clinic for the diagnosis of right-left shunt
 - 5. Direction Heart failure
- One of the few studies in Bulgaria on the role of iron deficiency in heart failure
 - 6. Direction of Atherosclerosis
- One of the few studies in Bulgaria investigating the role of atherosclerosis in PM

Comparative analysis of the indicators against the Rules for the Academic Staff Development of MU- Varna

| Group if indicators | Content | Assos. Prof (minimum number of points) | Personal number of points Dr Kisheva | |
|---------------------|---------------------------------|---|--------------------------------------|--|
| A | Indicator 1 | 50 | 50 | |
| В | Indicators 3 or 4 | 100 | 100 | |
| Г | Sum of indicators from 5 to 9 | 200 | 264.07 | |
| Д | Sum of indicators from 10 to 12 | 50 | 65 | |
| | TOTAL points | 400 | 479.07 | |

II. TEACHING AND LEARNING

Dr. Antoniya Kisheva presents the following teaching load:

| Academic | Lectures in | Lectures in | Seminars | Seminars | Total |
|-----------|-------------|-------------|-----------|------------|-----------|
| year | Bulgarian | English | in | in English | hours for |
| | | | Bulgarian | | academic |
| | | | | | year |
| 2015/2016 | - | - | 180 | _ | 180 |
| 2016/2017 | _ | N= | 146 | - | 146 |
| 2017/2018 | - | _ | 212 | _ | 212 |
| 2018/2019 | - | 2 | 208 | _ | 210 |
| 2019/2020 | - | 2 | 187 | - | 189 |

Maintains excellent continuing medical education in the form of courses and participation in medical forums. She has prizes for both the best poster and the best clinical case. Her training in the field of general medicine and cardiology, her experience as a lecturer is of utmost importance for her future work as an associate professor with basic contribution to the training of students, trainees and postgraduates at MU-Varna.

III. DIAGNOSTING -TREATEMENT ACTIVITY

In the competition Dr. Antonia Kisheva presents herself as an accomplished specialist in general medicine and cardiology with a rich scientific, teaching and medical activity. He has a recognized specialty in general medicine and cardiology and certificates of qualification in the main diagnostic and therapeutic methods in cardiology. Presented diploma for the educational and scientific degree "Doctor" in the scientific specialty "Cardiology" 03.01.47 - 2017.

CONCLUSION

: Dr. Antoniya Rumenova Kisheva is a doctor with very good clinical experience. She is an excellent clinician, administrative leader and researcher. Dr. Kisheva has extensive clinical experience and teaching skills. The scientific works of Dr. Kisheva are devoted to contemporary and topical solved and unsolved problems in Cardiology, which determines their significance, originality and scientific and practical importance. Her publishing activity reaches the scientific quantitative and qualitative

their significance, originality and scientific and practical importance. Her publishing activity reaches the scientific quantitative and qualitative requirements for the academic position "Associate Professor" according to the Rules for the Academic Staff Development of MU-Varna. Based on the above, I give a very good assessment of Dr. Kisheva's research and clinical activities. I declare with conviction that there is every reason for Dr. Antonia Rumenova Kisheva to be elected Associate Professor and I recommend the members of the scientific jury to vote positively for her to be awarded the academic position of Associate Professor.

15.06.21

Prof. Dr Snejanka Tisheva,

DSc, FESC