REVIEW

by Prof. Nikolay Margaritov Runev, MD, PhD
Clinic of Propaedeutics of Internal Medicine
"Prof. Dr. St. Kirkovich", UMHAT "Aleksandrovska",
Medical University of Sofia

Subject: Competition for the academic position of "Associate Professor" in professional field 7.1. "Medicine" and scientific specialty "Cardiology", announced in the State Newspaper, issue 15/21.02.2025 for the needs of the First Department of Internal Medicine, section "Cardiology" for teaching Bulgarian and English on a part-time basis (4 hours) at Medical University – Plovdiv

Order No. P-2206/29.04.2025 of the Rector of MU - Plovdiv for the appointment of a Scientific Jury

One candidate has been admitted to the announced competition for "Associate Professor" in Cardiology - **Bistra Vladimirova Yatseva, MD, PhD,** Head Assistant Professor in section "Cardiology" of the First Department of Internal Medicine at MU - Plovdiv. She has presented all the documentation necessary for the preparation of the review, in accordance with the requirements.

1. Brief biographical data

Dr. Bistra Vladimirova Yatseva was born on 08.06.1964. In 1988, she graduated from the Faculty of Medicine - Plovdiv. She started working as a resident physician in the Ward of Internal Medicine at the Municipal Hospital - Panagyurishte in January 1989, and during the period 08.1992 - 12.1995, she was the Head of the Ward of Internal Medicine at the Third Municipal Hospital - Plovdiv. From January 1996 to October 2000 she was successively assistant, Senior and Head assistant at MU - Plovdiv based on the Cardiology Clinic of UMHAT "St. George". During the period 2001 - 2014 he was Head assistant, from 2015 to 2022 - assistant and from November 2024 to the present - again Head assistant in the section "Cardiology" of the First Department of Internal Medicine at MU - Plovdiv.

In 1993 he acquired a specialty "Internal Medicine" and in 1998 - "Cardiology". In July 2023 she defended a dissertation work on the topic "Contemporary profile of patients with infective endocarditis and prognostic indicators for in-hospital

death" and acquired the educational and scientific degree (ESD) "Doctor". She holds licenses for basic and expert level in "Echocardiography".

2. Scientific research activity

Dr. Yatseva has submitted an author's report for accordance and implementation of the mandatory minimum scientometric parameters (MMSP) for "Associate Professor" of MU-Plovdiv, including publications, citations and research activity:

✓ Dissertation for the acquisition of the ESD "Doctor" on the topic: "Contemporary profile of patients with infective endocarditis and prognostic indicators for in-hospital death" - 2023. **gr "A" = 50 points (MMSP - 50 points)**

✓ Habilitation work - monograph "Platelets - prognostic significance in cardiovascular diseases" - 2025, University Publishing House "Paisiy Hilendarski", ISBN 978-619-281-024-5 with reviewers: Prof. Emil Manov, MD, PhD and Prof. Vesselina Goranova-Marinova, MD, PhD:
gr. "C" = 100 points (MMSP – 100 points)

✓ Publications and reports in scientific editions, referenced and indexed in worldwide databases with scientific information: gr. "D7" = 168.7 points
✓ Publications and reports in non-peer-reviewed journals with scientific review or in edited collective volumes: gr. "D8" = 71.8 points
✓ Published chapters of a collective monograph: gr. "D9" = 1.25 points
Total number of points in gr. "D" = 241.75 points (MMSP – 200 points)

✓ Citations or reviews in scientific journals, referenced and indexed in worldwide databases with scientific information or in monographs and collective volumes: gr. "E10" = 450 points
✓ Citations in monographs and collective volumes with scientific review: gr. "E11" = 20 points
✓ Citations or reviews in non-peer-reviewed journals with scientific review: gr. "E12" = 80 points
Total number of points in group "E" = 550 points (MMSP – 100 points)

✓ Participation in an international scientific or educational project: 60 points
✓ Participation in a national scientific or educational project: 45 points
✓ Training of interns, postgraduates and doctoral students (seminars and practical classes): 30 points
✓ Acquired medical specialties: 80 points.
Total number of points in the group "F" = 215 points (MMSP - 60 points)

The main contributions of Dr. Yatseva's scientific works are in the following areas:

I. Infective endocarditis (IE)

For the first time in our country, a retrospective analysis of a large number (270) of patients diagnosed with IE for a period of 17 years was performed with an assessment of the Charlson Index Comorbidity as an independent predictor of in-hospital death;

✓ **Practical algorithms for risk stratification in IE** have been developed, which are particularly useful for:

(1) making a decision for early surgical intervention;

(2) monitoring laboratory indicators with prognostic value;

(3) directing attention to subgroups of patients with persistent inflammatory activity and serious comorbidities.

✓ **A change in** the epidemiological and microbiological **characteristics of IE** among the Bulgarian study population has been confirmed:

(1) an increase in cases of healthcare-associated IE and IE associated with implanted cardiac devices;

(2) a predominance of S. aureus, Enterococcus species and resistant strains;

(3) a reduction in rheumatic valve disease as a predisposing factor for IE to 4% of the cases.

II. Prognostic role of platelets in cardiovascular diseases. An extremely current interdisciplinary topic, to which a monographic work is dedicated. The main focuses in the monograph are:

(1) the relationship between platelet function/dysfunction and early atherosclerotic vascular changes;

(2) the importance of platelet indicators and indices for the prognosis in patients with coronary artery disease, atrial fibrillation, stroke, peripheral vascular disease;

(3) the relationship between the mean platelet volume and antiplatelet and lipid-lowering therapy;

(4) clinically significant relationships between the platelets/lymphocytes ratio and the evolution of coronary disease and chronic heart failure (CHF);

(5) analysis of changes in the platelet distribution width in acute and chronic coronary syndrome, heart failure, ischemic stroke;

(6) assessment of the prognostic value of platelets and their indices in IE with messages for clinical practice.

III. Physiology, pathophysiology and clinical significance of the response to physical exertion and physical training in patients with heart failure

✓ A comprehensive assessment and analysis of the cardiopulmonary functional reserve in patients with CHF at rest and during physical exertion was performed;

✓ A significant reduction in spirometric and diffusion indices was established in patients with CHF II and III FC during physical exertion;

✓ **The effects of a training program** in patients with systolic left ventricular dysfunction and CHF II and III FC were analyzed: significant increase of peak oxygen consumption and anaerobic threshold with improvement of ventilation indicators;

✓ The results show that carefully selected patients with moderate to severe CHF can significantly improve their physical capacity and quality of life with an appropriate physical exercise program.

IV. Cardiovascular (CV) risk and risk factors

✓ For the first time in our country, a study was conducted among individuals with high and very high CV risk from Plovdiv region on the prevalence of familial hypercholesterolemia (FH), the type of their lipid-lowering treatment and the degree of achievement of target LDL-C levels;

✓ The current data on the use of statins in patients after acute coronary syndrome are summarized with an analysis of the most common reasons for the low degree of adherence to therapy;

✓ The roles of non-valvular atrial fibrillation and left ventricular hypertrophy as predictors of subsequent vascular incidents in patients with a first episode of reversible ischemic neurological deficit are analyzed and a practical model with predictive value for recurrent events is developed.

V. Coronary disease

✓ The effects of trimetazidine in reducing myocardial ischemic-reperfusion injury after surgical intervention are studied;

✓ The results after use of drug-eluting balloon vs deployment of drug-eluting stent in patients with acute coronary syndrome with ST elevation have been evaluated.

VI. Others

✓ A retrospective cohort study was conducted with an analysis of the major predictors of mortality in 306 adult patients hospitalized with COVID-19 in the period August 2021 - April 2022;

✓ The role of artificial intelligence in improving diagnosis and treatment of ulcerative colitis and its complications was evaluated.

The quality of the presented publications fully meets the academic requirements.

3. Teaching and learning activities

The teaching and learning activities of Dr. Yatseva are significant. The following report on the academic workload in the First Department of Internal Medicine, section "Cardiology" at MU - Plovdiv for the last 2 academic years has been presented:

➢ 2022-2023 academic year (Faculty of Medicine):

✓ practical exercises/seminars with students and postgraduates - 322 teaching hours (t.h.)

✓ undergraduate internship of students - 53 t.h.

✓ participation in semester exams of students - 30 t.h.

Total for the year - 405 teaching hours = 202.5 points.

➢ 2023-2024 academic year (Faculty of Medicine):

✓ practical exercises/seminars with students and postgraduates - 332 t.h.

✓ undergraduate internship of students - 53 t.h.

✓ participation in semester exams of students - 30 t.h.

Total for the year – 415 teaching hours = 207.5 points

Academic position "Head Assistant" for 2 academic years - 200 points

Total for the last 2 academic years – 610 points (MMSP - 300 points).

4. Diagnostic and therapeutic activities

Dr. Yatseva is a very well-trained specialist in "Internal Medicine" and "Cardiology" with significant clinical experience accumulated as a resident physician, assistant, Senior and Head assistant at the Cardiology Clinic of the University Hospital "St. George" - Plovdiv.

She has an excellent command and applies daily in practice the main non-invasive diagnostic methods in cardiology with a particular interest in: diagnostic and therapeutic challenges of IE, CV risk stratification; assessment of the cardio-respiratory reserve; programs for rehabilitation and improvement of physical capacity in patients with CHF.

4. Conclusion

The volume of scientific production, the number of publications with IF, as well as the citations in foreign databases of Dr. Yatseva fulfill (and exceed) the mandatory minimum scientometric parameters of MU - Plovdiv in the professional field "Medicine - Medical-Clinical Area" for the competitive position.

I believe that with her scientific research, teaching, diagnostic and therapeutic activities she fully meets the requirements of the Regulations on the terms and conditions for acquiring scientific degrees and taking academic positions at MU - Plovdiv.

This gives me grounds **to vote in favour** and to suggest to the esteemed members of the Scientific jury to support the election of Bistra Vladimirova Yatseva, MD, PhD for "Associate Professor" in Cardiology for the needs of the First Department of Internal Medicine, section "Cardiology" at Medical University - Plovdiv.

Sofia, 14.05.2025 Signature:

Заличено на основание
Чл.5 §1, б."В" Регламент (ЕС)2016/679

Prof. Nikolay Runev, MD, PhD