

## Review

In connection to the procedure for holding the academic position of "Associate Professor" in the field of higher education "Health and Sports" in the professional field "Medicine" and scientific specialty "Cardiology" for the needs of the Clinic of cardiology, National Heart Hospital, Sofia

Member of the Scientific Jury, who prepared the opinion - **Prof. Arman Snork Postadzhiyan, MD, PhD** Medical University Sofia, Cardiology Clinic Saint Anna University Hospital, Sofia

The contest for "Associate Professor" in the scientific specialty of cardiology for the needs of the Clinic of Cardiology at MHAT National Heart Hospital EAD has been announced in the State Gazette no. 52 of 09.06.2020

The scientific jury for the competition was appointed by order of the Executive Director of MHAT National Heart Hospital №272 / 17.07.2020.

The review was prepared in accordance with the Academic Staff Development Act (ACAS), the Regulations for the Implementation of the Academic Staff (PRASA) and the Regulations on the Terms and Conditions for Acquisition of Scientific Degrees and Occupation of Academic Positions (PURPNSZAD) at MHAT National Heart Hospital.

The presented set of materials on paper / electronic media is in accordance with the procedure for acquiring the academic position "Associate Professor" and the rules of the National Heart Hospital.

The only candidate is Dr. Lyubomir Emilov Baurenski, MD, Ph.D. assistant at MHAT National Cardiology Hospital

I declare the lack of joint work with the candidate, as well as the lack of conflict of interest in the preparation of this review.

When reviewing the scientific production of Dr. Baurenski, I do not find evidence of plagiarism in the preparation of scientific papers.

## Biographical data

Dr. Lubomir Baurenski was born in 1956. In 1975 he graduated from 114 English Language High School, Sofia. He completed his higher medical education in 1983 at the Medical Academy - Sofia, Diploma № 003544 (13.09.1983). Between 1983-1986 he started working as a resident doctor in the internal medicine department, Republic of Bulgaria, Isperih. Since 1986 started working initially at the National Center for Cardiovascular Diseases, later at the National Cardiology Hospital, Sofia. After winning competitions in the period 1986-1991, he was an assistant, since 1991 a senior assistant, and since 1993 he has been a chief assistant at the National Cardiology Hospital, Sofia. From 2003 to 2014 he was Head of the Cardiology Department at the Cardiology Clinic at the National Cardiology Hospital, Sofia

In 2017 Dr. Baurenski obtained a scientific and educational degree "Doctor" after defending a dissertation on "Behavior and treatment in patients with hypertensive crises and acute neurological symptoms (rapid transient or stroke), hospitalized in a neurological clinic" (diploma № 13 of 19.09.2017 - Scientific Council of the NCB).

In 2020, a monograph "Arterial hypertension and heart failure" was published.

He has acquired scientific specialties - 1990 - Specialty in Internal Medicine - Diploma № 36816 (01.01.1991), and in 1993 - Specialty in Cardiology - Diploma № 41738 (26.05.1993)

In the course of his professional development, Dr. Baurenski has a number of postgraduate trainings directly related to the scientific specialty of cardiology: specialization in epidemiology and CVD prevention at the National Center for CVD Osaka, Japan, cardiovascular prevention and epidemiology, Munich, Germany , Austria, as well as various specialized courses for advanced training in the field of diagnosis and treatment of arterial hypertension, heart failure, cardiomyopathies.

## Research activity

In the course of his research, Dr. Baurenski has made numerous scientific participations in international (12 in total) and national forums (10 in total), directly related to the scientific specialty and its practical application. Excerpts from the works are presented in a series of National Congresses of Cardiology, organized by the Society of Cardiologists in Bulgaria and at international forums organized by the European Society of Hypertension and the International Society of Hypertension

The documentation submitted by the applicant lacks data on implemented national research projects through medical universities or the Ministry of Education and Science. Notwithstanding the above, Dr. Baurenski has experience in the organization and conduct of clinical trials, as evidenced by his participation as a researcher in the studies: CONVINCENCE, EPHEUS, RELY, RELY-ABLE, CS 8635 - A - E30X, 1735. 20 TEAMSTA , CEPHEUS and Principal Investigator: BOREALIS - AF, CLEOPATRA. In addition, Dr. Baurenski has participated as a researcher in nationally representative studies in the epidemiology of cardiovascular diseases, such as the CINDI program and the control of cardiovascular risk factors after a EuroAspire III coronary event.

Dr. Baurenski participates in the competition with his scientific production including 61 scientific publications outside the dissertation for obtaining the educational and scientific degree "Doctor" and are subject to review. Their distribution is as follows: in foreign periodicals - a total of 2 publications published in international periodicals, referenced and indexed in world-famous databases with scientific information Lithuanian journal of cardiology and Meth. Find. Exp. Clin. Pharmacol. In Bulgarian periodicals - 59 publications, of which 40 are original articles (1 in a national journal with ISI impact factor (Comptes rendus de l'Academie bulgare des Sciences); 39 - in Bulgarian refereed and peer-reviewed editions); 19 review articles in Bulgarian peer-reviewed and peer-reviewed publications. Dr. Baurenski has also published 4 chapters in three specialized scientific journals - Pharmacotherapy in Cardiology, Drugs affecting the renin-angiotensin-

aldosterone system in the course of the cardiovascular continuum and Geriatric aspects of modern diagnostics and therapy. In 31 of all 59 publications outside the dissertation, Dr. Baurenski is the first author, in 8 - the second author, and in the rest - the third and subsequent author.

According to a reference provided by the Central Medical Library of the Medical University of Sofia, the total number of citations of Dr. Baurenski's publications (excluding self-citations) is 51 in national publications - articles, scientific books, dissertations, etc. : 26 citations in Scopus and 855 Web of Knowledge . In addition, seven of the applicant's abstracts were published in the Journal of Hypertension. In the documentation submitted by the applicant there is no information about general and individual impact factor of the publications or about h index.

Main accents in research

Dr. Baurenski's research is focused on the following main areas:

Risk factors and cardiovascular prophylaxis - The author presents current data on the prevalence of various cardiovascular risk factors in Bulgaria and other countries around the world, and current trends in primary and secondary cardiovascular prophylaxis, presents the results of cross-sectional study conducted in several major Bulgarian cities , discusses current trends in secondary cardiovascular prophylaxis in patients with realized cardiovascular disease (CVD).

Arterial hypertension - His developments are related to the current recommendations for the diagnostic and therapeutic approach in AH, including in cases of damage to the so-called. "Target organs" of AH; practical aspects regarding therapeutic behavior in treatment-resistant AH and hypertensive crisis; with main emphasis and originality are Dr. Baurenski's own developments regarding the dynamics of blood pressure in patients with ischemic and hemorrhagic stroke, as well as pharmacological activities conducted in one of the leading neurological clinics in the country.

Dr. Baurenski is conducting his own prospective studies examining the antihypertensive efficacy and safety profile of various drugs and drug combinations in patients with AH and varying degrees of cardiovascular risk.

- Multifocal atherosclerosis - Another group of candidate's publications focuses on early changes in the vascular tree in patients with hypertension and concomitant risk factors, as patients are examined using transesophageal echocardiography and modern possible duplex ultrasound

Dyslipidemias - Dr. Baurenski focuses on current recommendations for the diagnosis and treatment of dyslipidemias through the prism of the basic therapeutic goal in these patients: control of cardiovascular risk. He also conducts his own research in this field, which he publishes in the scientific community.

- Heart failure - Long-term AH, especially poorly controlled, usually leads to HF. Most patients with HF have pre-existing hypertension. Pressure loading causes remodeling of the heart, which is expressed in concentric left ventricular hypertrophy (LCH) and diastolic dysfunction (DD). When the tension load is constant, diastolic dysfunction progresses, the filling of the concentrically remodeled left ventricle (LC) decreases, resulting in CH with preserved ejection fraction (FI). Diastolic dysfunction and HF with preserved FI are the most common complications of hypertension. The final stage of hypertensive heart disease is the result of pressure and volume loading and is expressed in dilated cardiomyopathy with DD and reduced FI. Most antihypertensive classes of drugs slow the transition from AH to HF, although not all are equally effective. This is discussed in detail in Dr. Baurenski's monograph on hypertension and heart failure.

Teaching activity

The teaching activity of Dr. Baurenski as a senior assistant at the National Cardiology Hospital is related to participation in the training (theoretical, practical and methodological guidance) of medical students and postgraduate doctors specializing in cardiology.

The average workload for the last ten years is represented by 250 hours per year.

#### Diagnostic and therapeutic activity

Dr. Baurenski has over 37 years of experience and extensive experience in clinical cardiology and non-invasive cardiovascular diagnostics. His activity is mainly related to the primary and secondary prevention of cardiovascular diseases, where the candidate has a strong interest and nitrous experience. From the impressive number of studies and publications, it is obvious that he has a taste for research.

As a consequence of his professional realization, Dr. Baurenski is a member of a number of scientific organizations in the country and abroad - the Bulgarian Society of Cardiology, the Bulgarian League of Hypertension, the European Society of Cardiology, the European Society of Echocardiography.

#### Compliance with minimum national requirements

Dr. Baurenski presented a completed table according to PPZRASRB. The implementation of the minimum requirements by groups of indicators is as follows:

- Group A - completed 50 points.
- Group B - not required for AD "Associate Professor"
- Group B - the candidate has included a published monograph on a topic that differs from that of the dissertation, which covers the required minimum of 100 points.
- Group D - completed. The candidate estimates his / her sum of 240t from 8 independent publications in the point of publications and reports, published in unrefereed journals with scientific review or published in edited collective volumes. I calculate the actual sum of 495 points

(240 + 255 from unincluded publications), and the sum in group D exceeds the required 200 points.

- Group D - completed. The candidate presents 51 citations in Bulgarian magazines, with which he collects 255 points. Citation databases Scopus and Web of knowledge are not included here.

Thus, the actual number of points many times exceeds the required minimum of 50 points

- Group E- The candidate gains 110 points. from the recognized medical specialties and the teaching of specialists in the scientific specialty of the competition

In conclusion, the significance of the results obtained by Dr. Baurenski is essential given the large number of publications focused on epidemiology, prevalence and specific therapeutic behavior in common, socially significant diseases such as hypertension, dyslipidemia, response and secondary prevention of stroke and stroke. heart failure, basic classes of cardioprotective drugs, etc. Based on the above, I highly appreciate the research and applied value of the candidate's research papers.

In the competition, Dr. Baurenski presents himself as an exceptional specialist with sufficient medical, research and teaching experience. He has recognized specialties in internal medicine and cardiology, received a doctorate in medicine. He has moved up the academic ladder to chief assistant and has significant teaching, clinical and administrative experience. Dr. Baurenski is an established cardiologist, mastering and applying virtually all modern methods of preventive medicine and non-invasive cardiology.

Its scientific output is completely sufficient in volume and content, and in its significance, degree of novelty and justification of scientific achievements, meets the requirements of the Regulations on the terms and conditions for obtaining scientific degrees and holding academic positions and conditions and procedure for awarding the academic position of "Associate Professor" at the National Cardiology Hospital. The contribution of scientific production is significant, as evidenced

by the positive citations in medical journals. The candidate is a member of prestigious national and international societies in the field of cardiology.

On these grounds I give my positive vote and I suggest to the respected members of the Scientific Jury to vote positively Dr. Lyubomir Emilov Baurenski, MD to take the academic position of "Associate Professor" in Cardiology, for the needs of the Clinic of Cardiology at MHAT National Heart Hospital EAD

A handwritten signature in blue ink, appearing to read 'Arman Postadzhiyan'.

30.09.2020

Sofia

Prof. Arman Postadzhiyan, MD, Ph.D.

Member of the scientific jury