

## OPINION

**of the scientific publications and scientific contributions of Dr. Elena Svetlozarova Dimitrova from National Heart Hospital**

**On her participation in the contest for the academic position “Associate Professor” of Cardiology for the needs of the Department of Cardiology at National Heart Hospital.**

**From Tzvetana Katova, Professor of Cardiology, National Heart Hospital**

The contest for associate professor of cardiology has been announced in State Gazette, issue 45 from May 28, 2021 for the needs of the Department of Cardiology. Dr. Elena Svetlozarova Dimitrova is the sole candidate in the contest.

The review was prepared in accordance with the Academic Staff Development Act, the Regulations for application of the Academic Staff Development Act and the Regulations for the conditions and the procedure for holding academic positions at National Heart Hospital – Sofia. The presented set of materials and documents is in accordance with the requirements of the Academic Staff Development Act and the Regulations for its application.

### **1. Brief biographical data**

Dr. Elena Svetlozarova Dimitrova was born on February 14, 1984 in Sofia. She graduated from First English Language School in Sofia. In 2008 she graduated medicine at Medical University - Sofia with honors. In 2009 she started cardiology residency at the Clinic of Cardiology at University Hospital Saint Anna. In 2003 Dr. Dimitrova was enrolled as a doctoral student of cardiology at the Department of General Medicine at Medical University – Sofia. In 2013 after successfully passing a state exam, Dr. Dimitrova acquired a degree in cardiology. Since 2014 she has been working at the Intensive Cardiac Care Unit at National Heart Hospital. In 2017 she successfully defended a dissertation and acquired the title PhD. Since 2019 after a contest she has served as a chief assistant at the Department of Cardiology. She is certified for echocardiography – fundamental level. She has participated in international registries and clinical trials. Dr. Dimitrova is a member of Bulgarian Society of Cardiology and European Society of Cardiology.

## **2. Research activity**

### *Publications in scientific medical journals*

Total number of publications and abstracts – 44, 26 of them in referred and indexed scientific journals (10 publications and 16 abstracts) and 18 in non-referred journals with scientific review. In 14 of them Dr. Dimitrova is the first author.

- 1 abstract of dissertation
- 19 publications in Bulgarian and international scientific journals and 25 participations in congresses as an author and co-author 8 of which presented at national congresses and 17 presented at international congresses.

Citations - 43 citations in indexed scientific journals and 15 citations by other authors in Bulgarian sources.

Dr Dimitrova's individual impact factor from publications is 8.184.

## **3. Scientific interests**

Dr. Dimitrova's scientific interests are focused in the following fields:

### 1. Pulmonary hypertension and pulmonary embolism

In her dissertation 'Prospective follow-up of patients with pulmonary arterial hypertension and assessment of the effect of specific therapy on the functional class and clinical course of the disease following a specific protocol for follow-up and escalation of therapy" Dr. Dimitrova creates a diagnostic and therapeutic algorithm useful for early diagnosis and treatment of this disease entity.

Dr. Dimitrova has deepened her interests in the field with observations and publications about the combination of congenital heart disease and pulmonary arterial hypertension, as well as the common pulmonary hypertension associated with chronic lung disease. The contemporary review of the application of various biomarkers in patients with pulmonary embolism and pulmonary arterial hypertension is useful for practice. The review of pulmonary hypertension associated with anticancer therapy is up-to-date.

### 2. Coronary artery disease and acute coronary syndrome

In a series of publications and abstracts the prognostic role of anaemia, hyperglycaemia, age, female gender and inflammatory markers in a cohort of patients treated in National Heart Hospital is assessed.

Dr. Dimitrova is involved in a study of genetic polymorphisms in 200 patients with angiographically proven coronary artery disease seeking to find an association with multifocal atherosclerosis. In this study an association with the DD genotype of ACE and II genotype of ET-1 was found.

She emphasizes the role of prolonged antiplatelet therapy in patients with acute coronary syndrome beyond 12 months after the percutaneous coronary intervention.

She also presents an up-to-date analysis of the impact of the COVID-19 pandemic on the number of patients hospitalized with acute myocardial infarction, their specific characteristics and disease course compared with the same period in the previous year.

### 3. Atrial fibrillation, electrical cardioversion and cardiac pacing

Dr. Dimitrova has participated in the BALKAN-AF registry and in the registry of patients with atrial fibrillation/flutter scheduled for elective electrical cardioversion at National Heart Hospital.

In a series of publications the author presents data on the efficacy and safety of a protocol with non-escalating energy compared to standard protocols, as well as a protocol for elective electrical cardioversion tailored to body surface area.

A contribution is the analysis showing the high efficacy and safety of biphasic impulses for cardioversion of atrial fibrillation.

4. Some of the author's publications are dedicated to the therapeutic role of colchicine in acute coronary syndromes, clopidogrel and some considerations concerning the choice and duration of triple therapy after percutaneous coronary interventions. The published clinical cases are also of interest.

### **4. Teaching activity**

According to the provided reference Dr. Dimitrova covers the necessary tuition hours.

**In conclusion:**

Dr. Dimitrova is an excellently trained cardiologist with very successful professional development during 12 years of work at university clinics, the last 7 years at National Heart Hospital. She is a doctor with strong empathy for patients, high work ethic and precision in the execution of her medical and teaching duties. Dr. Dimitrova's scientific production is sufficient, the publications are reviewed in Bulgarian and foreign journals, the number of citations meets the requirements of the Academic Staff Development Act and the minimal requirements of National Heart Hospital for occupying the academic position "Associate Professor".

Dr. Elena Svetlozarova Dimitrova's teaching activity, successful medical practice and scientific realization give me grounds to support her election as associate professor and to recommend to the distinguished members of the scientific jury to vote positively for her election.

**Tzvetana Marinova Katova**

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**Professor of Cardiology  
National Heart Hospital**