

STATEMENT

On the procedure for taking up the academic position of "Associate Professor" in the scientific specialty "Pediatric Cardiology" for the needs of the Clinic of Pediatric Cardiology at

MBAL "NKB" EAD, Sofia

Member of the Scientific Jury who prepared the statement: Prof. Elena Kinova, DM, MU – Sofia, MF, Clinic of Cardiology, University Hospital "Tsaritsa Yoanna – ISUL", Sofia

1. Brief information about the competition

The competition for the academic position "Associate Professor" in the scientific specialty "Pediatric Cardiology" for the needs of the Clinic of Pediatric Cardiology at MBAL "National Cardiology Hospital" EAD was announced in the "State Gazette", issue 91 of 08.10.2024. The Scientific Jury for the competition was appointed by order of the Executive Director of MBAL "NKB" EAD No. 447/30.10.2024. This statement is prepared in accordance with the Law on the Development of the Academic Staff (ZRAS), the Regulations for the application of ZRAS (PRZRAS), and the Rules for the conditions and procedure for acquiring scientific degrees and occupying academic positions (PURPNSZAD) at MBAL "NKB". The submitted set of materials on paper/electronic media is in accordance with the procedure for acquiring the academic position of "Associate Professor" and the regulations of MBAL "NKB". The only candidate for the competition is Dr. Zornitsa Nikolova Vasileva, DM, chief assistant at the Clinic of Pediatric Cardiology at MBAL "NKB". There is no conflict of interest in preparing the statement for the competition. A review of Dr. Vasileva's scientific publications did not reveal any data on plagiarism in the preparation of the scientific works.

2. Brief data about the candidate

Acquired specialties and postgraduate qualifications

Dr. Vasileva graduated in medicine from the Faculty of Medicine at the Medical University of Sofia in 2005. She has acquired specialties in Pediatrics from 2011 and Pediatric Cardiology from 2017, a European certificate "Echocardiography in Congenital Heart Disease" from 2016, and a certificate "Advanced Fetal Echocardiography" from the University of Barcelona in 2018. She has specialized at MBAL "NKB" and Pediatric Cardiology at the University Hospital in Ghent. In 2016, she received a certificate in "Echocardiography in Childhood," and in 2021, a certificate in "Fetal Echocardiography" from the Medical University of Sofia.

Scientific degree

In 2023, Dr. Vasileva successfully defended her doctorate on "Preoperative Echocardiographic Diagnosis of Complete Atrioventricular Septal Defect."

Membership in scientific organizations

- Bulgarian Medical Association (BLS)
- Bulgarian Pediatric Association
- Society of Cardiologists in Bulgaria
- European Society of Cardiology

- European Association of Cardiovascular Imaging (EACVI)
- Orde der Geneesheren – Flemish Medical Association, Belgium
- European Association of Pediatric Cardiology (AEPC)
- Fetal Heart Society

3. Scientific research activity In the competition, Dr. Vasileva presented the following publication activity after obtaining her doctoral degree:

- A total of 88 full-text publications, most of which she is the first author. They are distributed as follows: 25 in editions indexed and referenced in global databases (8 with impact factor, highest IF 3.569 from 2021); 21 in editions from the National Reference List, and 42 in other editions. Five abstracts are published in journals with impact factor, and two abstracts in journals indexed and referenced in global databases. She has participated in many international training courses and congresses on pediatric cardiology and has been a lecturer at 20 national congresses on pediatric diseases, cardiology, cardiac surgery, neonatology, obstetrics, and gynecology.
- Author of the monograph "Atrioventricular Septal Defect – Embryology, Prenatal Diagnosis, Hemodynamics, Anatomical Characteristics, Natural and Postoperative Evolution, Echocardiographic Assessment." "Arbilis" LLC, Sofia, Bulgaria, 2024. ISBN: 978-619-7063-77-6 (Print), 978-619-7063-78-3 (e-Book)
- Participation in clinical trials as a researcher: MEDLEY, NPCarriage Study.
- According to the reference provided by the Central Medical Library of the Medical University of Sofia, the total number of citations of Dr. Vasileva's publications (excluding self-citations) is 8 in national editions – articles, scientific books, dissertations, 3 citations in Scopus, 9 Web of Knowledge, and 4 in other foreign freely accessible online sources.

Main areas of scientific research

Dr. Zornitsa Vasileva's scientific works cover a wide range of diseases. The scientific contributions include both original developments (first-of-their-kind analyses and created diagnostic tools) and practical guidelines for improving the diagnosis and treatment of cardiac diseases in children and adults. The scientific contributions of the author are related to:

I. Congenital heart defects

A. Atrioventricular Septal Defect (AVSD) Scientific-theoretical contributions:

- First systematic analysis in Bulgaria of patients with AVSD undergoing surgical treatment.
- Detailed echocardiographic measurements to distinguish balanced and unbalanced forms.
- Analysis of the correlation between the echographic type of defect, surgical strategy, and clinical outcome.

Scientific-practical contributions:

- A scoring system for AVSD classification based on four echocardiographic measurements has been developed.
- The importance of accurate diagnosis for therapeutic strategy selection has been confirmed.
- The sensitivity and specificity of the system for prognosis have been evaluated.

Monographic contribution:

- Detailed analysis of embryology, prenatal diagnosis, hemodynamics, anatomy, clinical manifestation, and treatment of AVSD.
- Includes personal experience with the diagnosis and surgery of patients with this defect.
- Richly illustrated echocardiographic images for clinical reference and training.

B. Diagnostic approach to other congenital malformations

- The anatomical and hemodynamic features in tetralogy of Fallot, cardiopathies in trisomy 21, and other congenital heart defects are described.
- Indications for magnetic resonance imaging and intracardiac studies are reviewed.
- Guidelines for clinicians on diagnosis and treatment are presented.

C. Congenital heart defects in adults

- Guidelines for managing adults with congenital heart defects are analyzed.
- Diagnostic and therapeutic challenges in patients with AVSD in adulthood are reviewed.

II. Fetal cardiology

- The percentage of prenatally diagnosed critical congenital heart defects in Bulgaria (below 20%, compared to 60% in developed countries) is evaluated.
- Barriers to access to fetal echocardiography and the need for more specialists are indicated.
- Recommendations for improving prenatal diagnosis and screening are outlined.

III. Infective endocarditis in childhood

- Analysis of 20 cases of infective endocarditis in children with congenital heart defects.
- Risk factors such as late diagnosis and delayed surgical treatment are identified.
- The main causative agents (staphylococci, streptococci) and complications are described.

IV. Cardiological involvement in COVID-19 in children

- Cases of multisystem inflammatory syndrome (MIS-C) are analyzed.
- Clinical manifestations such as fever, heart failure, and gastrointestinal symptoms are indicated.

- It is established that the pathogenesis is immunologically determined, not due to active viral infection.
- Recommendations for the diagnosis, treatment, and follow-up of these patients are presented.

The candidate has significant contributions both in theoretical and practical aspects, focusing on improving the diagnosis and treatment of congenital heart defects and cardiovascular diseases in childhood. The presented data show the broad scientific scope and high achievements of Dr. Vasileva's scientific production.

3. Teaching activity

Dr. Vasileva's teaching activity started in 2006 when she was a medical assistant at SBALDB EAD, Sofia, until 2012, and then continued from 2019 as a medical assistant at the Clinic of Pediatric Cardiology at MBAL "NKB". Since 2023, she has been a chief assistant at the clinic. She participates in the training of medical students (both Bulgarian and English-speaking), pediatrics, and pediatric cardiology trainees. She is a lecturer in an ultrasound training course for neonatologists and cardiology trainees. She is a scientific supervisor of two pediatric cardiology trainees.

4. Diagnostic and treatment activity

Dr. Vasileva has over 20 years of professional experience and rich experience in pediatric cardiology and echocardiographic cardiovascular diagnosis. She has worked consecutively at the Clinic of Rheumatology and Cardiology at SBALDB in Sofia, Belgium – at the Clinic of Pediatric Diseases at the University Hospital in Ghent, AZ Lokeren in Lokeren, and the Specialized Children's Hospital "Queen Paola" in Antwerp, and the Clinic of Pediatric Cardiology at NKB, Sofia. Dr. Vasileva has presented a filled table according to the PRZRASRB. The fulfillment of the minimum requirements by group indicators is as follows:

Group "A": Dissertation for awarding the educational and scientific degree "Doctor", 50 points.

Group „B“: Not required for the academic position of "Associate Professor"

Group „B“: Monograph, 100 points.

Group „Г“:

- Publications and reports published in scientific journals, indexed and referenced in world-famous scientific information databases, 557.5 points.
- Publications and reports published in non-refereed journals with scientific review or published in edited collective volumes, 394.4 points.

Group „Д“:

- Citations in monographs and collective volumes with scientific review, 60 points.
- Citations or reviews in non-refereed journals with scientific review, 15 points.

The total number of points is 1076.89.

Conclusion

Dr. Zornitsa Vasileva, DM, is an established specialist in pediatric cardiology with extensive clinical experience, including in renowned clinics abroad, and skills in the field of echocardiography. Her wide-ranging clinical interests are represented through her publications and doctoral dissertation. Dr. Vasileva's scientific production is characterized by significant depth and is published in peer-reviewed national and international journals, with the necessary citations. She has passed the required academic development stages as per the law and has sufficient teaching experience. Dr. Zornitsa Vasileva's scientometric indicators exceed the minimum requirements necessary for the academic position of "Associate Proffesor".

The overall activity and fulfilled requirements and criteria according to the Law on the Development of the Academic Staff and the rules for its application give me reason to support Dr. Zornitsa Vasileva in her selection as "Associate Professor" and to propose to the esteemed members of the Scientific Jury to vote positively for her to occupy the academic position of "Associate Professor" for the needs of the Clinic of Pediatric Cardiology at MBAL "NKB" EAD, Sofia.

February 27, 2025

Prof. Elena Kinova

