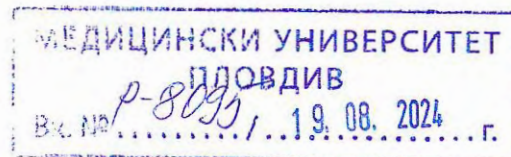


**TO THE CHAIRMAN OF THE SCIENTIFIC JURY,  
ANNOUNCED BY ORDER No. R-2142 OF 21.06.2024  
OF THE DEPUTY RECTOR OF THE MEDICAL UNIVERSITY OF  
PLOVDIV**

**STANDPOINT**



**by Associate Professor Dr. Krasimira Ivanova Koleva, d.m.**

**UMBAL "St. Marina" - Varna**

**Subject:** Competition for the academic position "**Docent**"

in the field of higher education 7. Health care and sports, professional direction 7.1. Medicine and scientific specialty "**Pediatrics**" for the needs of the Department of Obstetrics and Gynecology at the Faculty of Medicine at the Medical University - Plovdiv and at UMBAL "St. Georgi" - the city of Plovdiv according to the order of Deputy. Rector of MU - Plovdiv

According to the order of the Deputy Rector of the Medical University - city of Plovdiv, I have been elected as an external member of the Scientific Jury under the procedure for occupying the academic position "Docent" at the Medical University - city of Plovdiv. Plovdiv and I am assigned to prepare an opinion on the competition. The only candidate is Dr. Penka Vasileva Petleshkova-Angelova, MD.

The documents provided to me are in accordance with the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations for its application and meet the requirements of the Regulations on the terms and conditions for acquiring scientific degrees and for occupying academic positions at the Medical University - Plovdiv. No procedural violations were found.

I declare that I have no conflict of interest within the meaning of Art. 4, para. 5 of Law on the Development of the Academic Staff of the Republic of Bulgaria.

## **I. BRIEF BIOGRAPHICAL DATA AND CAREER DEVELOPMENT**

Dr. Penka Vasileva Petleshkova-Angelova was born on August 28, 1968. She graduated from the Medical University in the city of Plovdiv in 1993. Dr. Penka Petleshkova began her work experience as a doctor in the MBAL - Pazardzhik. Since 2010, she has been appointed as a neonatologist at the AG Clinic of UMBAL "St. Georgi" EAD-Plovdiv, and since 2012 she is an assistant in the Department of Obstetrics and Gynecology of the Medical University of Plovdiv. Acquired specialty in pediatric diseases in 2000, specialty in neonatology in 2012. and major in health management in 2020. In the period between 2016 and 2017, she was a doctoral student of independent training at the Department of Pediatrics and Medical Genetics of the Medical University of Plovdiv and successfully defended a dissertation for the acquisition of the educational and scientific degree "doctor" on the topic "Procedural pain in full-term newborns - assessment and opportunities for non-pharmacological intervention'.

## **II. SCIENTIFIC RESEARCH ACTIVITY**

Dr. Penka Petleshkova, MD, participated in the current competition with the following scientific works:

Dissertation work for obtaining the educational and scientific degree "doctor" - 1 pc.

Stand-alone monograph entitled "Current Issues in Fetal and Neonatal Pain".

Publications and reports published in scientific publications, referenced and indexed in world-renowned databases with scientific information (Scopus and Web of Science) (in two Bulgarian journals) - a total of 25, of which 14 were published in scientific publications, referenced and indexed in world-renowned databases of scientific information (only Scopus and Web of science), and 7 of them are in IF journals with a total IF of 6.29.

Dr. Penka Petleshkova, PhD, is the first author of 8 of the scientific works (3 in journals with IF, 1 in refereed journals in Scopus and Web of science, and 4 in non-refereed journals with scientific review or in edited collective volumes) . Scopus Hirsh index – 3. Second author in chapters of 2 collective monographs.

There are participations with scientific messages in 16 international congresses or conferences with printed abstracts, and 1 message (abstract) has been published in impact factor journals, which has been cited.

Dr. Penka Petleshkova, MD, is a participant in two research projects at Medical University - Plovdiv. The first is associated with candida colonization in the newborn in mothers with vulvovaginitis. The results of this project have been presented as a poster and oral presentation at national and international forums. The publications are in scientific editions, referenced and indexed in world-famous databases with scientific information (Scopus and Web of Science). The second project is aimed at managing stress in obstetric emergencies in a clinical and simulation environment. No results published yet.

The publications presented by Dr. Penka Petleshkova, MD, for participation in the competition fully correspond to the recommended quantitative criteria for holding the academic position "Associate Professor" at the Medical University - Plovdiv according to the Regulations on the Terms and Conditions for the Acquisition of Scientific Degrees and for occupying academic positions at the University.

### **III. CHARACTERISTICS AND CONTRIBUTIONS OF SCIENTIFIC PUBLICATIONS**

The research activity of Dr. Penka Petleshkova, MD, is based on her clinical treatment and diagnostic work as a pediatrician and neonatologist with authority among the Bulgarian scientific community. The studies carried out are up-to-date, original and correspond to the trends in medicine and public health, both in our country and internationally.

The theoretical, applied and original contributions in the scientific works of Dr. Penka Petleshkova, MD, are in the following main thematic areas: perinatology, neonatology, early child development, pain - procedural pain, neonatal and fetal pain, pharmacology, alternative methods of treatment, fetal medicine, neuroanatomy and neurophysiology of the fetus and newborn, rare diseases and syndromes, medical education, educational methodology.

## **I. Contributions related to scientific activity**

### **1. Contributions to the diagnosis, assessment and treatment of fetal and neonatal pain**

Through the scientific developments in this section, original contributions are made in a scientific-confirmatory and practical-applied aspect at the national and international level.

I would like to especially emphasize the relevance and importance of research on the diagnosis, assessment and treatment of neonatal pain. The dissertation is the first systematized study of procedural pain in full-term newborns in Bulgaria with significant original and applied scientific contributions. The clinical applicability of the two scales, the multimodal - Neonatal Infant Pain Scale (NIPS) and the unimodal - Neonatal Facial Coding System (NFCS) have been confirmed. scale in Bulgarian conditions by proving with modern statistical methods their reliability and validity, which is a significant original contribution.

An original scientific contribution is also the proven correlation between the severity of pain calculated through the corresponding scores of the scales and vital indicators: breathing, heart rate, oxygen saturation and arterial pressure.

An original contribution is the algorithm proposed and implemented in clinical practice for the diagnosis and treatment of procedural pain in full-term newborns.

A significant scientific contribution is the independent monograph "Actual problems of fetal and neonatal pain. This is the first and only monographic work on this topic in Bulgaria. Knowledge, diagnosis, and assessment of neonatal pain is fundamental to pediatric pain prevention. The monograph and dissertation can serve as a basis for improving the treatment of pain in pediatrics and in particular in the neonatal age through the modern understanding of pain mechanisms, improvement of assessment methods and use of alternative treatment methods.

The monographic work also presents the future possibilities through artificial intelligence for diagnosis and objective assessment of pain effects in newborns.

Several publications are devoted to scientific developments in the field of:

1. The treatment of neonatal pain using non-pharmacological and homeopathic methods - of a practical-applied nature. Their inclusion in an algorithm for procedural pain relief in full-term neonates enables the choice of analgesia by the neonatologist.

2. Studies of the influence of perinatal factors /from the mother and the child/ on the outcome of the pregnancy and postpartum pathology bring out contributions of a scientific and confirmatory nature at the national and world level. In the presented publications, for the first time in our country, the relationship between maternal vulvovaginal candidiasis and the colonization of newborns from mothers with this pathology, in the first days of life, as a risk factor for a clinical form of manifestation in the neonatal period - skin-mucous, non-neonatal sepsis - has been studied.

Special attention in the monograph is also given to the influence of perinatal factors related to pregnancy and childbirth on the severity of procedural pain.

The contributions of the articles on maternal nutrition and physical activity and the adequate treatment and control of comorbidities during pregnancy, e.g. good glycemic control in expectant mothers with pregestational and gestational diabetes.

Many legal and ethical issues related to surrogacy and the limited research on this topic have been discussed. The research done by Dr. Petleshkova and her team is a significant scientifically applied contribution and can serve to create surrogate motherhood legislative foundations regarding this problem in our country.

A significant scientific-applied contribution to early child development is the "Program for timely detection and follow-up of full-term and premature children, born at term birth" introduced into clinical practice under the auspices of the Varna Society of Pediatric Endocrinology and the Bulgarian Association of Neonatology.

The research on extrahepatic portal vein thrombosis (EHPVT), which is a possible cause of portal hypertension in children, is of a scientific and applied nature.

Two cases of a rare syndrome are presented: 1. Poland syndrome with real dextrocardia and phenotypic variability. 2. Estesioneuroblastoma is a rare malignant, neuroectodermal tumor, for the removal of which, for the first time in our country, an endonasal operation was performed.

Of interest are publications on the quality of training during pre- and post-graduate internships, the impact of distance learning on the application of modern training methods for medical specialists.

#### **IV. EDUCATIONAL AND TEACHING ACTIVITY**

Dr. Penka Petleshkova, MD, has been involved in the education of medical students in the discipline "Neonatology" at the Department of Obstetrics and Gynecology of the MU - Plovdiv for 12 years. She participates in the lecture course with teaching in English. Trains specialists in neonatology and participates in midwives exams from the Health Department of MU Plovdiv. The annual study load of the candidate for the last three years is: for the academic year 2020/2021 - 457 hours; 2021/2022 - 379 hours; 2022/2023 - 499 hours, of which 349 hours – training of students, interns and specialists and 150 hours of scientific work.

#### **V. MEMBERSHIPS IN SCIENTIFIC SOCIETIES AND ORGANIZATIONS**

Dr. Penka Petleshkova, MD, is a member of several scientific societies and organizations:

#### **CONCLUSION**

On the basis of the candidate's scientific works submitted to me for review and analysis, I can confidently state that I vote positively for the election of Dr. Penka Petleshkova-Angelova, MD, to occupy the academic position "Docent" in the scientific specialty "Pediatrics" " at Medical University - Plovdiv.

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

08/08/2024

Assoc.Prof Dr. Krasimira Koleva, MD