

To the Chairman of the Scientific Jury,
Appointed by order P2142/21.06.2024
To the Deputy Rector of MU - Plovdiv

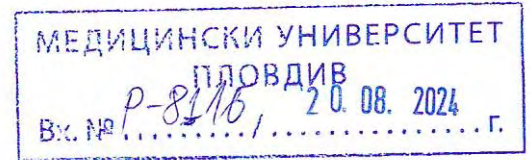
REVIEW

from

Prof. Dr. Penka Ilieva Perenovska, dm

UMHAT "ALEKSANDROVSKA" Jsc, Sofia

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About:

Competition for the academic position

"Associate Professor" - for teaching Bulgarian and English, in the medical specialty "Pediatrics" at the Department of Obstetrics and Gynaecology, Ministry of Health at the Medical University - Plovdiv, announced in the Government Gazette № 35 of 19.04.2024.

The review was prepared in compliance with Order No. P2142/21.06.2024. of the Deputy Rector of the MU Plovdiv and according to the decision of a meeting of the scientific jury. I have no conflict of interest as a member of the scientific jury.

General presentation of the procedure.

The set of materials presented by the candidate Dr. PENKA VASILEVA PETLESHKOVA - ANGELOVA is in accordance with the requirements. I have not found any gaps in the attached primary documentation. The requirements of LDASRB, RILDASRB and the Regulations for the terms and conditions for acquiring scientific degrees and occupying academic positions at MU-Plovdiv have been met.

Biographical data and presentation of the candidate:

From 03.12.2012 to the present day – Medical University Plovdiv - Assistant at the Department of Obstetrics and Gynaecology

From 01.02.2010 to the present day – University Multiprofile Hospital for Active Treatment "St. George" - Jsc, Plovdiv Obstetrics and Gynaecology Clinic, Neonatology Department, Doctor - Neonatologist

From 7.06.1993 to 31.01.2010 MHAT-Pazardzhik-Jsc Children's Polyclinic Department-1993-1995, Children's Department-1995-1998, Neonatology Department-1998-2010.

EDUCATION AND TRAINING

05.03.2020 High School in Agrobusiness and Development of the Regions - city of Plovdiv acquired specialty in "Health Management": diploma series BYAPP-2020, ID No. 320601; reg. № 2225

30.01.2012 Medical University - city of Plovdiv, acquired specialization in "Neonatology" - certificate series АП №001787 Plovdiv 31.01.2012. Reg. № 016388

10.07.2000 Sofia Medical University, acquired specialty in "Children's Diseases" - certificate series AC №007079 Sofia 07/10/2000. reg. № 005313,

10.1986-05.1993 Higher Medical Institute - city of Plovdiv, Master of Medicine - diploma series ПД №009599 city of Plovdiv 26.05.1993 Reg. № 10287

09.1983-06.1986 "Georgi Dimitrov" High School - Plovdiv

PERSONAL SKILLS AND COMPETENCES

The abovementioned actively participates in the educational and teaching activities of the department.

- She speaks English and Russian. Dr. Petleshkova has good communication skills.

Conferences	Certificates of the Bulgarian Pediatric Association; of the Bulgarian Association of Neonatology
Seminars	of the Bulgarian Pediatric Association; of the Bulgarian Association of Neonatology
Membership	Optimist Internet International Club - Plovdiv; Bulgarian Association of Neonatology; Union of Scientists - Plovdiv; Bulgarian Scientific Society of Public Health
Courses	Abdominal ultrasound; Transfontanel ultrasound; Salzburg-Columbia Seminar Neonatal Neurology; Maternal-fetal infections; Emergencies in neonatology; Problems of the intensive therapy of the newborn; New Headway Upper-Intermediate

Scientific research activity

Evaluation of publications

In the current competition, Dr. PETLESHKOVA participated with: a dissertation for the award of the educational science degree "Doctor" - on the topic "Procedural pain in full-term newborns - assessment and possibilities of influence with non-pharmacological means", a habilitation thesis monograph on the topic: "Current problems of the fetal and the neonatal pain." Publications - a total of 25, of which 14 are 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 journals with IF and their total IF is 6.29. She participated in congresses and conferences on various topics in Bulgaria. 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. She is the first author in 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 peer-reviewed journals or in edited collective volumes). Scopus Hirsh index – 3. Some of the candidate's publications are the result of work in author collectives. She is the second author in chapters of 2 collective

monographs. Dr. PETLESHKOVA's scientific developments are in various areas of pediatrics, mainly in the field of neonatology and pain.

They can be grouped by topic as follows:

Perinatology

Neonatology

Early childhood 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

Methodology of education

The topic of diagnosis, evaluation and treatment of neonatal pain is current and significant.

Knowledge, diagnosis, and assessment of neonatal pain is fundamental to pediatric pain prevention. It is a very common problem and there are efforts worldwide to improve the methods of its diagnosis and evaluation. The candidate's monograph and dissertation can serve as a basis for improving the treatment of pain in pediatrics and in particular in the neonatal age.

In recent years, more and more emphasis has been placed on the role of perinatal factors of the mother and the newborn on neonatal pathology and on the development of the child. 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-mucosal, non-neonatal sepsis, has been studied. It is proved that the impact of this maternal infection on the newborn depends on other predisposing factors. (publ. no. 12,13 of item 13). The significance of the exact etiological / microbiological / diagnosis has been established, observing the tendency to increase the frequency of non-albicans / resistant to therapy / mycotic infections in our country, which determines adequate therapeutic behavior. A lack of dependence of the colonization of newborns with maternal vulvovaginal candidiasis on the mechanism of birth was established. Candida strains were typified. The obtained results are part of the intra-university Project № HO-07/2014 on the topic: "Study on candida vulvovaginitis in pregnant women and candida colonization in newborns"

The influence of 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 are key factors about the development of the fetus, the outcome of pregnancy, postpartum adaptation and pathology. The results obtained by the author confirm the need for education and self-control in diabetes and pregnancy. (pub. no. 11 of item 13).

The birth of a small for gestational age (SGA) child is associated with many complications at different periods of life. In our country, there is a lack of sufficient information about the condition and an algorithm for tracking these children. "Program for timely detection and follow-up of full-term and premature children born with SGA " serves for early detection of full-term and premature SGA children, ensuring the timely diagnosis of syndromes and diseases associated with SGA birth and conducting additional, including genetic research. (pub. no. 3 of item 14).

Extrahepatic portal vein thrombosis (EHPVT) is a possible cause of portal hypertension in children. It has been shown that patients with systemic or local risk factors for EHPVT are indicated for proactive ultrasound screening for early diagnosis and timely treatment. (pub. no. 3 of item 13).

In a number of scientific studies, the quality of training during pre- and post-graduate training is analyzed. The research has a scientific-methodical contribution as an attempt to scientifically substantiate optimization of these stages of education with a view to forming and improving the professional competence of nurses. The role of the mentor in the pre-graduate internship process in this procedure has been studied and evaluated. (publ. no. 5,8,9,10 from item 13 and publ. no.10,11 from item 14).

A rare syndrome is presented, showing phenotypic variability, which enriches its clinical characterization. The two presented cases of right-sided Poland syndrome with true dextrocardia confirm that the associated features vary considerably among individuals. (pub. no. 5 of item 14). Esthesioneuroblastoma is a rare malignant, neuroectodermal tumor whose initial symptoms are usually diagnosed in later stages, and an important point for prognosis is early detection and timely treatment.

Participation in projects

Dr. Petleskova has participated in two educational intra-university projects. 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.

Dr. Petleskova is a member of the research team of a national joint project of the Bulgarian Association of Neonatology and the Varna Endocrinological Society Grants ID 64919053 "Program for timely detection and follow-up of full-term and premature children born small for their gestational age / SGA / which takes place at the national level – successfully completed the first stage in 2022; and the second stage (endocrinological) – in 2024.

Participation in Practical training under the "Student practices" project - Phase 2 and "Professional development of lecturers" under the "Omnia" project.

Over the years, Dr. PENKA PETLESHKOVA has established herself as a highly qualified doctor and scientist with established authority. Actively participates in:

1. Supervision of trainees: Supervisor of two trainees in neonatology from 2024.
2. Delivering lectures at conferences for postgraduate continuous qualification in children's diseases and neonatology.
3. Participation in examination commissions for admission to the specialty "Neonatology" and state examinations of midwives.

In the Table for self-evaluation according to mandatory minimum scientometric indicators for the field of medicine (medical-clinical disciplines), Dr. Petleshkova has 2072.6 points, which meets and exceeds the mandatory quantitative scientometric criteria for occupying the academic position "Associate Professor" at MU-Plovdiv / required minimum for the Academic position "Associated Professor" - 810 points/.

Citation of the candidate's publications

Dr. Petleshkova presents a reference from the National Centre for Information and Documentation for citations: in scientific publications, referenced and indexed in world-famous databases with scientific information (Scopus and Web of Science) or in monographs and collective volumes:

1. List of citations and/or reviews in scientific publications, referenced and indexed only in Scopus and/or Web of Science with evidentiary material from databases - 9 publications, cited a total of 40 times., such as the article Zisova LG, Chokoeva AA, Amaliev GI, Petleshkova PV, Miteva-Katrandzhieva T, Krasteva MB, Uchikova EH, Kouzmanov AH, Ivanova ZV. Vulvovaginal Candidiasis in pregnant women and its importance for Candida colonization of newborns. *Folia medica*. 2016 Apr 1;58(2): 108 was cited by 16 authors. Scopus Hirsh index – 3.

2. List of citations or reviews in non-refereed peer-reviewed journals - 50 citations of 17 publications.

Evaluation of the candidate's monograph

A significant scientific contribution is the independent monograph "Actual problems of fetal and neonatal pain" (Published by "Lax book" Ltd ISBN: 978-619-189-1) with reviewers Prof. Dr. Maya Krasteva - Vilmosh, MD and Prof. Dr. Iliana Pacheva, MD. This is the first and only monographic work on this topic in Bulgaria. Emphasis is placed on the fact generally accepted in modern medicine that newborns also experience pain and the need from an ethical point of view to minimize it in order to prevent its adverse consequences in the fetal and neonatal period, as well as childhood. Knowledge, diagnosis, and assessment of neonatal pain is fundamental to pediatric pain prevention. It is a very common problem and there are efforts worldwide to improve the methods of its diagnosis and evaluation, which will allow maximum impact on its adverse consequences in childhood and later. The monograph chapter "Fetal pain" can serve anatomists, neurophysiologists, specialists in fetal morphology and physiology to unravel the neurophysiology of pain in the fetus, and for new studies on the influence of pain and other harmful factors on the earliest development of the brain and its subsequent cognitive and behavioral reflection. Special attention in the monograph is also devoted to the influence of perinatal factors related to pregnancy and childbirth on the severity of procedural pain. In the monograph presented in the chapter "Influence of perinatal factors of pregnancy and childbirth on neonatal pain" results of own studies are given. The monographic work also presents the future possibilities through artificial intelligence for diagnosis and objective assessment of pain effects in newborns.

The literature reference is evidence of the author's good knowledge of the researched topic. The monograph is written in an academic style, systematized and understandable.

Scientific contributions of the CANDIDATE

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

Publications № 1,4,6,14 from Item 13

Publications №1,2,4,6 from Item 14

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. The publications present for the first time in Bulgaria the diagnosis and assessment of procedural pain with two established scales, the multimodal - Neonatal Infant Pain Scale (NIPS) and the unimodal - Neonatal Facial Coding System (NFCS) scale. For the first time in our country, changes in vital indicators - respiratory and heart rate, transcutaneous oxygen saturation and arterial blood pressure - have been studied and established as physiological markers for procedural pain.

An original scientific contribution is the proven correlation between the strength of pain, calculated by the corresponding scores of the scales and vital signs.

For the first time in our country, standard and non-standard methods of anesthetizing term newborns for procedural pain have been introduced into clinical practice. The confirmed analgesic effect of the standard method - oral intake of Sol.Glucosae 25% and the proven advantages of alternative non-pharmacological approaches make it possible to use them in clinical practice. An original contribution is the algorithm proposed and implemented in clinical practice for the diagnosis and treatment of procedural pain in full-term newborns (publ. no. 1,4,6 from item 13 and publ. 1,2,6 from item 14).

The dissertation work of Dr. PETLESHKOVA is the first systematized study of procedural pain in full-term newborns in Bulgaria with significant original and scientific-applied contributions (publ. №1,4,6 of item 13 and publ. №1,2,6 from item 14).

2. Scientific developments in the field of treatment of neonatal pain using non-pharmacological and homeopathic methods - of a practical-applied nature.

For the first time in our country, standard and non-standard methods of analgesia were applied in full-term newborns after procedural pain (heel prick) ((publ. №1,4,6 from item 13 and publ. №1,2,6 from item 14).

3. 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 (publ. no. 11,12,13 of item 13).

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, neonatal sepsis - has been studied.

The dynamic and rapid development of medicine and in particular assisted reproductive technology (ART) has opened a whole new range of possibilities for infertile couples around the world, but for some of them the only chance is surrogacy. It raises many legal and ethical issues. The investigation on this topic is limited, therefore the candidate's research done is a significant scientifically applied contribution and can serve in an eventual creation of the legislative foundations regarding this problem in our country. (pub. no. 9 of item 14).

4. Early childhood development

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 prematurely", introduced into clinical practice. The results will serve to create an algorithm for the follow-up and treatment of these children, which will benefit the clinical practice of neonatologists, general practitioners endocrinologists, pediatricians and other health specialists, as well as for the benefit of families, educators, psychologists, etc. (pub. no. 3 of item 14).

5. Publications in the field of Rare Diseases

For the first time, endonasal surgery was performed in our country with typical clinical and histopathological findings of olfactory neuroblastoma, and the possibility of radical surgery through endoscopic endonasal sinus surgery was discussed. (pub. no. 7 of item 14).

6. Pharmacology - A study was made with a scientific and confirmatory contribution to the necessary dose of yohimbine.

7. Contributions to medical education and training

An original contribution is the development of a complex model for a complete procedure of planning, organizing, monitoring and evaluating the pre-graduate internship of nurses at MU-Plovdiv, which can be used in the practical training of other specialties as well. (publ. no. 5,8,9 of item 13). For the first time in our country, the impact of distance learning on the application of modern methods of training medical specialists /in the context of the COVID-19 pandemic/ has been studied, which represents an original contribution to the methodology of education.

Teaching and learning activity

Attached is a reference from the Educational Department of the Medical University-Plovdiv regarding the study load of Dr. Petleshkova - a total of 499 points - covering and exceeding the required norms for a teacher. She actively participates in the training by leading practical exercises, seminars and selected lectures, exams of medical students, lectures with students from the Medical College, seminars and practical classes with trainee doctors and specialists. Dr. Penka Petleshkova is an experienced teacher.

I recommend the candidate to increase the number of her publications.

Conclusion

After summarizing all the data, I believe that Dr. PENKA PETLESHKOVA is an established teacher and highly qualified specialist in the field of pediatrics and neonatology. Her publications cover a variety of areas. The candidate possesses in-depth theoretical, clinical and professional skills.

Based on the above, in accordance with the LDASRB and the Regulations for occupying academic positions at the MU Plovdiv, I give a positive assessment and recommend the members of the Scientific Jury to vote for awarding Dr. PENKA VASILEVA PETLESHKOVA – ANGELOVA, dm to the Academic position of "Associate Professor" .

Date:.../.../2024

The present review is prepared by:

Prof. Dr. Penka Iliev Perenovska, dm

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Залчено на основание
Чл.5 §1, 6 "Б" Регламент (ЕС)2016/679

