



## OPINION

from

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in Epidemiology, living in the city of Varna 7056626,*

Member of a scientific jury under Order No.P-247 of 12.01.2024 of the Rector of the Medical University-Plovdiv

REGARDING: Announced competition published in the State Gazette no. 83 of 03.10.2023, for the occupation of the academic position "Associate professor" in the specialty "Epidemiology" field of higher education 7. Health care and sports, professional direction 7.1. Medicine, for the teaching of Bulgarian and English in the discipline "Epidemiology" in the Department of "Epidemiology and Disaster Medicine" at the Medical University of Plovdiv, with candidate Dr. Vanya Rangelova Rangelova, MD. The candidate has submitted all the required documents specified in the Regulations for the Development of the Academic Staff of MU-Plovdiv. The documents were prepared in accordance with the Law on the Development of the Academic Staff in the Republic of Bulgaria and the Rules for its Implementation at the MU - Plovdiv.

### **I. Brief biographical data about the candidate:**

Dr. Vanya Rangelova was born in Plovdiv. She finished her secondary education at English Language School Plovdiv in 2008. In 2014, she obtained a master's degree in medicine at the Medical University (MU) - Plovdiv, graduating with honors.

In the period 2014-2016, Dr. Rangelova started working as a physician in the emergency internal department of University Hospital "St. George". After successfully passing the competitive exam in 2016, she was appointed the position of assistant professor at the MU-Plovdiv, and from 2021 she was promoted to the position of chief assistant professor at the Department of "Epidemiology and Disaster Medicine". From 2020 she works as a hospital epidemiologist at St. Mina Hospital, Plovdiv. She was appointed as an epidemiologist (consultant) at the National Center for Infectious and Parasitic Diseases - Sofia for the period 2020-2023. She works as a freelance translator of

medical documentation.

Dr. Rangelova acquired a specialty in Epidemiology of Infectious Diseases in 2020. In the same year, as a doctoral student of independent training at the Department of "Epidemiology and Disaster Medicine", she obtained the scientific and educational degree "Doctor" in the scientific specialty "Epidemiology" with the topic of her dissertation: " Clinical-epidemiological, microbiological and financial aspects of hospital-acquired infections in the neonatal period'. From 2023, she is studying in a master's program in Health Management at the Medical University-Plovdiv.

Dr. Vanya Rangelova is a member of the Bulgarian Medical Union, Bulgarian Scientific Society for Epidemiology of Infectious and Non-Infectious Diseases, Union of Scientists in Bulgaria, Bulgarian Scientific Society for Public Health, European society of clinical microbiology and infectious diseases.

## **II. Scientific - research activity of the candidate - assessment of quantitative and qualitative indicators:**

In fulfillment of the minimum requirements for this competition, Dr. Vanya Rangelova presents the following scientific production:

**Criterion A.1.** Dissertation for the award of an educational and scientific degree "doctor" on the topic: " Clinical-epidemiological , microbiological and financial aspects of hospital-acquired infections (HAIs) in the neonatal period" (2020) - *50 points* .

**Criterion C.3.** Habilitation work - monograph

- Rangelova V. Hesitancy and attitudes towards influenza vaccination among different population groups, "Paisiy Hilendarski" University Publishing House, 2023; ISBN 978-619-202-921-0 (2023) – *100 points*

**Criterion D.5.** A published monograph that is not submitted as a major habilitation thesis

- Ani Kevorkyan , Kostadin Kostadinov, Vanya Rangelova, Ralitsa Raycheva, COVID-19 in Bulgaria. Epidemiological analysis, Paisij Hilendarski University Publishing House, 2023, ISBN 978-619-202-922-7 (2023) - *100 points*.

**Criterion D.6.** Published book on the basis of a defended dissertation work for the award of the educational and scientific degree "Doctor":

- V. Rangelova Healthcare-associated infections (HAIs) in the neonatal period. Lax book Plovdiv, 2023 ISBN-978-619-189-228-0 (2023) – *40 points*.

**Criterion D.7.** Scientific publications in publications referenced and indexed in world-renowned databases (Web of Science and Scopus) - (Appendix

13) - 20 publications in referenced and indexed in world-renowned databases with scientific information (only Scopus reviews and Web of Science), of them 11 (eleven) with IF (=29.603) - *281.1 points*

**Criterion D .8.** List of publications in non-referenced peer-reviewed journals or published in edited collective volumes (Appendix 14) - 17 publications - *276.1 points*.

**Criterion D.10.** Citations or reviews in scientific publications, referenced and indexed in world-famous databases with scientific information or in monographs and collective volumes - 24 citations of 9 articles (IF: 86.114); 23 reviews (IF: 58.6) – *705 points*.

**Criterion D.12.** List of citations and/or reviews in non-referenced journals with scientific review - 12 citations - *60 points*.

**Criterion E.15.** Acquired specialties - Epidemiology of infectious diseases (2020) – *40 points*.

**Criterion E.16.** Participation in a national scientific or educational project (including intra-university research projects) - 1 national scientific project, 1 national educational project, 2 intra-university projects - *60 points*.

**Criterion E.17.** Participation in an international scientific or educational project - 2 international projects - *40 points*.

**Criterion E.19.** Management of international scientific or educational projects - 3 international projects - *120 points*.

**Criterion E.20.** Published university textbook - 4 textbooks - *18.02 points*.

**Criterion G.** Teaching activity (auditory, scientific and non-auditory activity) - chief assistant from 2021 - *655.5 points*

- academic year 2020/2021: 609 hours
- academic year 2021/2022: 905 hours
- academic year 2022/2023: 953 hours

The total number of participations of the candidate in scientific forums in the entire professional career is 39. In foreign scientific forums 17 of them and 22 in national forums.

Dr. Vanya Rangelova has received the following citation indexes from scientific platforms: *h-index* = 3 / Scopus /; *h-index* = 4 / ResearchGate /; *h-index* = 4 / Google Scholar /.

The mandatory minimum scientometric indicators of the MU-Plovdiv are **1000 points** for holding the academic position "Associate professor". In the competition, Dr. Vanya Rangelova participated with a sum of the indicators of **2575.72 points** , which is ~2.5 times higher than the required minimum.

### **III. Scientific directions and thematic areas in which the candidate worked, represented in the scientific works :**

- **Epidemiology of healthcare-associated infections.**
- **Immunoprophylaxis**
- **Viral hepatitis**
- **Airborne infections**
- **Transmissible infections**
- **Decontamination / sterilization**
- **Epidemiological surveillance**
- **Epidemiology of non-communicable diseases in the field of Psychiatry**

### **IV. Scientific and applied contributions:**

Based on the presented scientific works, the following more significant contributions are indicated (Appendix 27):

1. **Contributions with an original character for the country** - 10 pieces most important of which are:
  - For the first time, a comprehensive analysis based on national data and covering a two-year period since the beginning of the COVID-19 pandemic was performed, assessing the registered morbidity, mortality and lethality. The influence of demographic factors, premorbid background, provision of health resources in the country, the influence of different viral variants, vaccination coverage, etc. are reported. A multifactorial risk assessment was performed according to gender-age structure, regional differences and vaccination status.
  - Three different approaches (passive surveillance, prospective and cross-sectional study) were applied in a comparative plan to determine the level of healthcare-associated infections (HAIs) in neonatology practice.
  - For the first time, a financial analysis of the direct costs of treating newborns diagnosed with VAP during an intensive care stay has been performed.
  - A combination of serological and molecular methods for the detection of the Hepatitis E virus was applied for the first time among a large group of hemodialysis patients in southern Bulgaria.
2. **Contributions of a scientific and applied nature** – 11 numbers, of which of high practical value as follows are:
  - The analyzed intensive and extensive epidemiological indicators in patients with HAIs allow to propose a model for surveillance in a neonatal intensive

care unit (NICU), based on the WHO concept of constant monitoring of HAI in high-risk clinics.

- Based on evidence-based medicine, the knowledge of the etiological agents of the leading HAIs and their antibiotic resistance, giving direction in the formation of the antibiotic policy in the neonatal intensive care unit.
  - 4 types of communication styles of general practitioners are presented and discussed in relation to immunization with vaccines from the mandatory immunization schedule.
  - An analysis of data on patients with Crimean-Congo hemorrhagic fever with an atypical clinical picture (absence of bleeding) was performed and recommendations were made for the diagnosis of the disease.
3. **Contributions enriching existing knowledge** - 9 numbers, the most significant of which are:
- The knowledge about the most common etiological causes of ventilator-associated pneumonia among newborns and the risk factors associated with its occurrence has been supplemented.
  - An overview of adverse events associated with the administration of vaccines based on technology using a viral vector and messenger RNA for the prevention of COVID-19 is presented.
  - The data on the prevalence have been added HEV genotypes and subgenotypes in the country based on molecular studies among a heterogeneous patient population.

## **V. Educational - teaching activity**

According to the presented certificate No. P-2807/15.11.2023, Dr. Vanya Rangelova has 7 years of teaching experience with an average study load in the last 3 academic years of more than 800 hours (References for study load - Criterion G). According to this indicator, it fulfills and exceeds the minimum requirements according to the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulation for its implementation in MU - Plovdiv.

As a university teacher, Dr. Vanya Rangelova teaches students of medicine (Bulgarian and English language training), dentistry (Bulgarian and English language training), public health inspectors. Participates in the development and systematic updating of the curricula for theoretical and practical training in all disciplines with teaching "Epidemiology of Infectious Diseases". Over the years, she improved her knowledge by attending numerous postgraduate training

courses in the country and abroad. She speaks proficiently English and basic level of German. Has excellent computer literacy.

**In conclusion:** Dr. Vanya Rangelova is a recognised expert in the field of infectious disease epidemiology. Her exceptional professional qualifications and practical expertise as a hospital epidemiologist and consultant at the National Centre for Disease Control and Prevention enhance the learning experience in the subjects she teaches. Acquiring theoretical knowledge in an academic setting assists the development and confirmation of skills, essential for success as a hospital epidemiologist at "St. Mina" in Plovdiv. Dr. Vanya Rangelova, a teacher at Medical University - Plovdiv, is well regarded by her students and colleagues in the epidemiology field nationally and internationally. She received prestigious awards in the discipline of Epidemiology.

The documents presented in the competition fully meet the mandatory and specific requirements and scientometric criteria according to the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Regulations for its implementation at the MU-Plovdiv. This, together with the candidate's personal qualities, give me the reason to propose to the respected members of the Scientific Jury to vote positively and confirm the awarding of the academic position "Associate Professor" to Dr. Vanya Rangelova Rangelova, DM. .

I declare that I have no conflict of interest with the candidate!

23.02.2024

Varna

Prepared the opinion :

Prof. Dr. Tsonko Paunov, MD



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

