



## WRITTEN STATEMENT

**By Assoc. prof. Oliana Boykinova, PhD, MD**  
Scientific specialty Infectious Diseases (03.01.33)  
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Заличено на основание  
Чл.5 §1, б. "В" Регламент (ЕС) 2016/679

**In a competition for the academic position "ASSOCIATE PROFESSOR"** in the field of higher education 7. "Health and sport", professional direction 7.1. "Medicine" in the scientific specialty "Epidemiology" for the needs of the "Department of Epidemiology and Disaster Medicine" at the Medical University of Plovdiv with the participation of **Vanya Rangelova Rangelova, MD, PhD** chief assistant professor at the relevant Department.

The competition was announced in due order, following a decision of the Academic Council of the MU - Plovdiv and was published in the "State Gazette" issue 83/03.10.2023. The documents I received for evaluation comply with the standards of MU-Plovdiv.

### **I. Analysis of the candidate's career profile:**

Dr. Vanya Rangelova was born in 1989. She completed her secondary education in 2008 in the Plovdiv Language High School with enhanced English language studies. Her career development began after completing a higher education in Medicine - EQD "Master" at Medical university - Plovdiv in 2014, starting as a doctor in the Emergency Internal Admission Department of UMHAT "St. George" - Plovdiv (2014-2016). After a successful competition in 2016 she was appointed to the position of "Assistant professor" in the Epidemiology section of the "Epidemiology and Medicine of Disaster Medicine" department, Faculty of Public Health, Medical University of Plovdiv. In 2020 Dr. Rangelova obtained her PhD degree as well as a specialty in "Epidemiology of Infectious Diseases". From 2021 until now she works as a chief assistant professor at the relevant department.

In the period from September 2020 to June 2023, Dr. Rangelova worked as an epidemiologist (consultant) at the National Center for Infectious and Parasitic Diseases, Sofia, supporting the activities of the employees of the Epidemiology Department in monitoring the spread of SARS-CoV-2. Currently, Dr. Rangelova is also working as a hospital epidemiologist at Saint Mina Hospital, Plovdiv.

## II. Scientific - research activity of the candidate:

In the announced competition for associate professor of "Epidemiology" at the Medical University-Plovdiv, Dr. Rangelova participates with a total of 37 publications, 2 monographs, 4 textbooks and study guides, and a total of 39 scientific communications at foreign and national forums. There are 11 articles published in journals with an Impact Factor. Dr. R. Rangelova is the first author of 41.9% of the scientific articles.

### Evaluation of the candidate's scientific works:

- Dissertation and works related to the dissertation 1 pc. dissertation 1 abstract and 3 publications (2 of them referenced in Scopus)
- Monographs – 2 issues
- Publications in scientific publications, referenced and indexed in world-famous databases (Scopus and Web of Science) – 20 issues, of which 11 with an IF.
- Publications in non-referenced peer-reviewed journals or published in edited collective volumes – 17 issues
- Participation in textbooks and study aids 4 pieces
- Scientific announcements from foreign forums – 17  
Scientific announcements at national forums in our country – 22

One of the main directions in Dr. Rangelova's scientific research are the publications related to **Healthcare-associated infections (HAIs)**. For the first time, a complete epidemiological and microbiological analysis of the results of a six-year ambispective study of the dynamics and trend of the epidemic process of HAIs in the neonatology intensive sector of one of the largest university hospitals in the country was carried out and the determinants for morbidity modeling were indicated. 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.

Another direction is: **Vaccine prophylaxis and vaccine-preventable diseases**. For the first time, a representative cross-sectional study was conducted to investigate the attitudes of general practitioners towards vaccines in the compulsory immunization schedule and to examine the factors that may serve as predictors of vaccine hesitancy. For the first time, an analysis of reported adverse events (local, systemic, allergic) after vaccination with vaccines against COVID-19 (vectored and mRNA-based) was performed and the associative relationship between the severity and duration of reactions with the characteristics of the studied respondents was investigated.

In the field of - **Viral hepatitis 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. The frequency of HBV and HCV viral infection among hemodialysis patients was assessed by initial screening of serological markers and subsequent application of a molecular method of detection.

### **Prevention and control of dental-related infections.**

#### **Disinfection, sterilization, disinsection and deratization**

**Transmissible infections:** 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.

**Airborne infections** - For the first time, a comprehensive analysis based on national data and covering a two-year period since the start of the COVID-19 pandemic has been carried out, assessing registered morbidity, mortality and lethality. The influence of demographic factors, premorbid background, provision of health resources in the country, the influence of different virus variants, vaccination coverage, etc. are reported. A multifactorial risk assessment was performed according to gender-age structure, regional differences and vaccination status.

**Psychiatry** - In co-authorship, a cross-sectional study was conducted among physicians practicing in Afghanistan to assess the level of depression using the validated Center for Epidemiologic Studies Depression Assessment Questionnaire (CES-D). The relationship between the socio-demographic characteristics of doctors in Afghanistan (monthly income, place of work, type of work) and symptoms of depression was studied.

In the presented monographic work, dedicated to the epidemiological analysis of COVID-19 in Bulgaria, multifaceted information is provided about the etiological agent /SARS-CoV-2/, the epidemiological characteristics and its dynamics, the health-demographic state of the population, the resources of the health system in Bulgaria, the diversity in the clinical manifestation of COVID-19, incl. and therapeutic options, analysis of morbidity and mortality, prevention /vaccination, vaccination status and post-vaccination complications/. The monograph is a very serious scientific work, with a significant contribution, useful both theoretically and with a certain practical orientation.

In most of the publications, the author collaborates successfully with teams from different units. The results of her research, related to the complex use of different approaches, are meaningful and accurate.

These data are an indicator of the versatile scientific interest covering all areas of epidemiology and the great activity of the candidate with an affinity for new trends. Dedicated to scientific research, the candidate conducts analytical and in-depth data analysis and uses modern methods.

### **III. Publication image (citations of the candidate in the national and foreign literature):**

Total number of cited articles - 10

Total number of citations - 36

Citations in scientific publications, referenced and indexed in world-famous databases (Scopus and Web of Science) – 24

Citations in non-referenced peer-reviewed journals – 12

**IF of articles cited: 86.114**

Reviews in scientific publications, referenced and indexed in world-renowned databases (Scopus and Web of Science) – 23 (**IF-58.6**)

The total impact factor of the articles published in international journals is **29.603**.

**IV. Evaluation of the candidate's study-methodical and teaching activities, including scientific guidance of students, trainee doctors, doctoral students:**

The educational and teaching activity of Dr. R. Rangelova, PhD, began in 2016. She has 7 years of teaching experience. The training includes practical classes in Bulgarian and in English for medical students, trainee doctors, dentistry, pharmacy, public health inspectors. For the last 3 years, she has had pedagogical activity by year as follows:

**Auditory employment:** varies between 360-459 hours of epidemiology exercises for medical and dental students (in Bulgarian and English), semester exams - between 76-130 hours.

Dr. Rangelova, PhD, actively participates in the publication of textbooks and study aids, tests and lecture courses, participates in examination committees for the taught discipline. Conducts pre-graduate training of interns.

The report and attestation sheet from the committee for attestation of the academic staff at MU-Plovdiv indicates 60 attestation points with an overall attestation grade: "**Very good**".

**IV. Participation in scientific projects:**

Dr. Rangelova is part of the team of 2 intra-university, 1 national scientific project, 1 national educational project and 4 international research projects:

- **Intra-university projects**

- HO-02/2020 Characteristics of hepatitis E virus infection in hospitalized acute hepatitis and immunocompromised groups of patients.
- KOV-07/2021 COVID-19 in dental practice - prevention and control.

- **National Science Project**

- No.KP-06-OIP03/15 "Childhood immunizations: a challenge for modern Bulgarian society (Research on communication problems between pediatricians and parents to identify adequate measures to improve immunization coverage in Bulgaria).

- **National Education Project**

- PROJECT No. BG05M2OP001-2.009-0025 "Doctoral studies at MU-Plovdiv for competence, creativity, originality, realization and academism in science and technology - 2 (DOCTORAL STUDENT-2).

International projects

- **International projects**

- Improving Influenza Program and Enhancing Influenza and other viral respiratory pathogens through integration of all existing surveillance systems and using one health surveillance approach 1NU51IP000905-01-00;

- Design and implementation of multinational surveillance systems using routinely collected electronic health records in EU/EEA -E-Sure EHR-SARI Specific contract No1- ECD. 13629 ID.24334;
- OJ/2021/DPR/12924 “Vaccine effectiveness, Burden and Impact Studies (VEBIS) of COVID-19 and Influenza; Specific Contract No 1 ECD.12616 ID12927 LOT1 Hospital Network for Vaccine Effectiveness, Burden and Impact Studies and for Surveillance of Severe Acute Respiratory Infections.
- OJ/2021/DPR/12924 “Vaccine effectiveness, Burden and Impact Studies (VEBIS) of COVID-19 and Influenza; Specific Contract No3 ECD.13350 ID24101 LOT1 Hospital Network for Vaccine Effectiveness, Burden and Impact Studies and for Surveillance of Severe Acute Respiratory Infections.

**VI. Membership in scientific organizations and study and qualification abroad:**

Dr. V. Rangelova is a member of:

- European society of clinical microbiology and infectious diseases
- Union of Scientists in Bulgaria
- Bulgarian Scientific Society of Public Health
- Bulgarian Scientific Society for Epidemiology of Infectious and Non-Infectious Diseases

Participates in the editorial board of the following medical journals:

- International Journal of Pediatrics, Neonatology and Primary Care
- Razi International Medical Journal
- International Journal of Infectious Diseases and Therapy

Dr. Vanya Rangelova is upgrading her knowledge and skills by participating in various trainings abroad (Weil Cornell Seminar – Infectious Diseases – 05.05-11.05.2019, Salzburg, Austria; Salzburg Institut Pasteur Seminar- Global Health: Viruses, Liver and Cancers – 19-23.07.2021, Salzburg, Austria; Training School on Bayesian Latent Class Models- 31.08-02.09.2022, Novi Sad, Serbia; ECDC Observership – 10-14.10.2022, Stockholm, Sweden; ). In the period 04-08.10.2021, Dr. Rangelova carried out mobility under the Erasmus+ program at Julius-Maximilians Universitat Wurzburg, Würzburg, Germany.

The candidate is an epidemiologist (consultant) at the National Center for Disease Control and Prevention. Participates in ECDC and WHO online meetings on current issues related to COVID-19 and influenza. Implementation of the activity Operational Contact Point for SARI surveillance and updated reporting protocol and NFPT Coordination Committee. Participates in the submission of data from the case-based surveillance module of severe acute respiratory diseases (SARS) in the European Surveillance System (Tessy).

Dr. Rangelova is fluent in English language level C1 and German language A2, as well as SPSS, Microsoft Office, Microsoft Excel worksheet, Classroom Office 365 Microsoft Office.

Dr. Rangelova works in a team when making decisions. Takes an active part in the development of programs and projects. Has excellent presentation skills (scientific presentations, teaching experience) and written communication skills (scientific reports and project preparation, correspondence with project partners).

Throughout her path of consistent career growth so far, Dr. Vanya Rangelova shows a desire for professional improvement and expansion of her knowledge in all areas of epidemiology and medicine. Proof of this is her diverse interests, reflected in her rich publication activity with a high publication image, as well as her continuous training and qualification abroad and in our country.

**Conclusion:**

Based on the above, I highly appreciate the scope and diverse activities of Dr. Vanya Rangelova as a university teacher. She possesses not only in-depth theoretical knowledge, but methodical and analytical capabilities and skills in the course of developing scientific problems. Demonstrates very good qualities for independent conduct of scientific research, as well as teamwork.

Dr. Vanya Rangelova can take the academic position of "**ASSOCIATE PROFESSOR**" according to the announced competition, meeting the qualitative and quantitative criteria for evaluating the educational and teaching activities of MU-Plovdiv.

21.02.2024г.

**Assoc. Prof. O. Boykinova, MD, PhD**

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