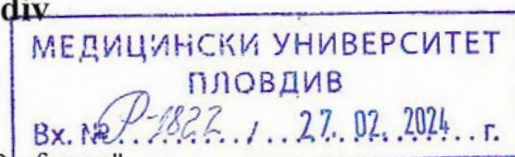


**To the Chairman
of the Scientific Jury,
determined by Order
No. R-247/12.01.2024
of the Rector, of MU-Plovdiv
15A V. Aprilov Blvd
4002 Plovdiv**



Attached I present: Review

according to a competition for 1 academic position "Associate Professor",
in the scientific specialty "Epidemiology",
professional direction 7.1 "Medicine",
field of higher education 7. "Health and sport",
announced for the needs of the Medical University of Plovdiv, Department of "Epidemiology
and Disaster Medicine", at the Faculty of Public Health,
published in the State Gazette No. 83/03.10.2023

Reviewer: Prof. Dr. Irena Atanasova Mladenova-Hristova, PhD,

Scientific specialty: Epidemiology

Institution: Faculty of Medicine, Trakia University Stara Zagora, Head of the Department
"Hygiene, Epidemiology, Microbiology, Parasitology and Infectious Diseases"

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The review was compiled in accordance with the requirements of the Law on the Development
of the Academic Staff of the Republic of Bulgaria and the Regulations for its implementation.

REVIEW

According to the announced competition for the occupation of 1 academic position "Associate Professor", in the scientific specialty "Epidemiology", documents were submitted by 1 candidate - chief assistant professor Vanya Rangelova Rangelova, MD, PhD, from the Department of Epidemiology and Disaster Medicine, at the Faculty of Public Health, of the Medical University of Plovdiv.

There are no violations of the competition procedure.

I. Analysis of the candidate's career profile ch. assistant professor Vanya Rangelova Rangelova, MD, PhD.

Dr. Vanya Rangelova was born on March 28, 1989. in the city of Plovdiv. She received her secondary education with honors at the Plovdiv Language School. She graduated in medicine, in 2014, at the Medical University - Plovdiv, with excellent results, from the studies and the state exams. From November 2014 until August 2016, she worked as a doctor in the Emergency Admission Department, UMHAT "St. George", Plovdiv.

After winning a competition, Dr. Rangelova was appointed as an assistant professor in Epidemiology, in the Department of Epidemiology and Disaster Medicine, Faculty of Public Health, at the Medical University of Plovdiv, in 2016.

She has been awarded the educational and scientific degree "Doctor" after defending a dissertation with a title "Clinical-epidemiological, microbiological, and financial aspects of healthcare-associated infections (HAIs) in the neonatal period" in 2020. Following her participation in a competition, she was promoted to chief assistant professor in the aforementioned department beginning in 2021.

Since December 2020, Dr. Rangelova is a specialist in Epidemiology of infectious diseases. She commenced her pursuit of a master's degree in health management in 2023.

II. General description of the submitted materials for the competition:

The submitted documents, by Dr. Vanya Rangelova Rangelova, PhD., meet the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the Rules for its implementation, for occupying the academic position "Associate

Professor" (administrative documents for participation in the competition, monographic work, copies of scientific publications, participations in scientific forums, etc., on electronic media), with sufficient material according to all assessment criteria and minimum requirements, according to groups of indicators, for the academic position "Associate Professor"

III. Evaluation of the scientific works of the candidate for the overall academic development.

General characteristics of scientific production and publication activity

The general publication activity of chief assistant professor Vanya Rangelova consists of **46 scientific works** as evidentiary material, in the report on the fulfillment of the minimum requirements for occupying the academic position "Associate Professor", according to the Law on the Development of the Academic Staff of the Republic of Bulgaria, author's abstract of a dissertation work; 1 monograph (presented as a habilitation thesis); 1 monograph, which is not presented as the main habilitation thesis; 1 book based on a defended dissertation work; co-authorship in textbooks and study aids - 3 in Bulgarian and 1 in English. There are 37 full-text articles and 2 abstracts in impact factor journals.

Outside of this competition, a list of 7 publications is attached, for ESD "Doctor" and Academic position "Chief Assistant Professor".

Dr. Rangelova has participated in 2 national, 2 intra-university (mainly on immunizations, viral hepatitis and COVID-19) and 5 international projects, in collaboration with ECDC (on the system for epidemiological surveillance of influenza, COVID-19 and other respiratory pathogens), on 3 of which he is the lead researcher.

The scientific interests and developments of Dr. Vanya Rangelova are in a wide range - healthcare-associated infections (HAI), immunoprophylaxis and epidemiology of vaccine-preventable infections, viral hepatitis, airborne infections, transmissible infections, epidemiological surveillance, epidemiology of non-communicable diseases diseases.

Dr. Rangelova speaks English and German.

IV. Evaluation of the monographic work and publications submitted for participation in the competition for academic position "Associate Professor" by the candidate.

Chief assistant professor Vanya Rangelova Rangelova, Ph.D., participated in the competition for the academic position "Associate Professor" with the following scientific works:

Monograph /Habilitation thesis/ - Vanya Rangelova Rangelova. "Vaccine hesitancy and attitudes towards influenza vaccination among different population groups", Paisii Hilendarski University Publishing House, 2023; ISBN 978-619-202-921-0.

In the monograph, the attitudes towards vaccination, with influenza vaccines, among different population groups, and the predictors of vaccination were investigated in a multifaceted manner.

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, Paisii Hilendarski University Publishing House, 2023, ISBN 978-619-202-922-7

Publications in scientific journals, referenced and indexed in world-famous databases with scientific information (*Scopus and/or Web of Science*) - 20 items, with an extremely high overall Impact Factor (IF-29.603): Human Vaccines & Immunotherapeutics, Healthcare, Life, BMC psychology, Frontiers in Pediatrics, Journal of Infection in Developing Countries, Journal of IMAB, etc.

2 abstracts with an impact factor (IF-1.612) in journals referenced in Scopus /WoS (no scoring);

Co-authorship in 4 university textbooks: 3 - in Bulgarian language: "Handbook of the specialist in prevention and control of HAI", "Hospital epidemiology", "Neonatology", and 1 - in English: "Beyond the clinical cases in the field of infectology".

Reviews of articles abroad: 23 (IF-58.6)

Publications in non-referenced journals, with scientific review, or published in edited collective volumes - 17

Participation in national and international scientific forums - 39

From a total of 43 scientific works:

-first/independent author- 18 pcs. incl. monograph, monograph chapters, abstract, book;

- second author - 6 pcs;

-third/next author- 19 pcs.

Distribution of scientific works in different areas of epidemiology:

Healthcare-associated infections

HAI surveillance

- from list 9 (author's abstract of a dissertation work for ESD "Doctor"): **No1**
- from list 12 (book based on defended dissertation work): **No 1**
- from list 13 (publications referenced in Scopus and/or Web of Science): **No7, No13**
- from list 14 (list of publications in non-refereed journals): **No15, No1**

Indicator HAIs (etiological, clinical-epidemiological, financial aspects and risk factors)

- from list 9 (author's abstract of a dissertation work for ONS "Doctor"): **No1**
- from list 12 (book based on defended dissertation work): **No1**
- from list 13 (publications referenced in Scopus and/or Web of Science): **No7, No8, No13**
- from list 14 (list of publications in non-refereed journals): **No13, No14**

Prevention and control of HAI

- from list 9 (author's abstract of a dissertation work for ONS "Doctor"): **No1**
- from list 12 (book based on defended dissertation work): **No1**
- from list 13 (publications referenced in Scopus and/or Web of Science): **No7**

Immunoprophylaxis

Vaccination with mandatory vaccines

- from list 13 (publications referenced in Scopus and/or Web of Science): **No1**
- from list 14 (list of publications in non-refereed journals): **No8**

Vaccination with recommended vaccines

- from list 10 (habilitation thesis - monograph): **No1**
- from list 13 (publications referenced in Scopus and/or Web of Science): **No9, No15, No19, No20**
- from list 14 (list of publications in non-refereed journals): **No2, No6, No10**
- from list 32 (other documents / 2-related to NID / e-summary with IF): **No2**

Adverse events after vaccination

- from list 13 (publications referenced in Scopus and/or Web of Science): **No9**
- from list 14 (list of publications in non-refereed journals): **No6, No10**

Vaccination Attitudes and Communication Styles of Communicating Vaccines

- from list 10 (habilitation thesis - monograph): **No1**
- from list 13 (publications referenced in Scopus and/or Web of Science): **No1, No2, No19**
- from list 14 (list of publications in non-referenced journals): **No3, No12**
- from list 32 (other documents / 2-related to scientific development / abstracts with IF): **No1**

Viral hepatitis

Clinico-epidemiological and molecular characterization of acute HEV infection

- from list 13 (publications referenced in Scopus and/or Web of Science): **No3, No4, No10**

Trends in the prevalence of hepatitis E among different population groups

- from list 13 (publications referenced in Scopus and/or Web of Science): **No3, No4, No10**

Seroepidemiological prevalence studies of HBV and HCV among hemodialysis patients

- from list 13 (publications referenced in Scopus and/or Web of Science): **No3, No4, No10**

Prospects for hepatitis C elimination

- from list 13 (publications referenced in Scopus and/or Web of Science): **No12**

Airborne infections

Epidemiology of COVID-19, influenza, scarlet fever, varicella

- From list 11 (published monograph that is not a major habilitation thesis) **No1**
- from list 13 (publications referenced in Scopus and/or Web of Science): **No6, No18**
- from list 14 (list of publications in non-referenced journals): **No1, No11**

Diagnosis of COVID-19

- from list 13 (publications referenced in Scopus and/or Web of Science): **No14**

Transmissible infections

Crimean-Congo hemorrhagic fever

- from list 13 (publications referenced in Scopus and/or Web of Science): **No16**

Dengue

- from list 13 (publications referenced in Scopus and/or Web of Science): **No20**

Decontamination/Sterilization

- from list 13 (publications referenced in Scopus and/or Web of Science): **No17**

Epidemiological surveillance

- from list 13 (publications referenced in Scopus and/or Web of Science): **No11**

The original scientific contributions of Chief Assistant Professor Dr. Vanya Rangelova Rangelova, PhD, are mainly related to hospital-, immunoprophylaxis and the epidemiology of vaccine-preventable infections; viral hepatitis, airborne infections, transmissible infections, epidemiological surveillance.

For the first time, a comprehensive epidemiological and microbiological analysis of the results, from a six-year study, of the dynamics of the epidemic process of HAI, in a neonatological intensive sector, in one of the largest university hospitals, was performed and the determinants for morbidity modeling were indicated.

For the first time, a representative cross-sectional study was conducted to investigate the attitudes of general practitioners towards vaccines, from the mandatory immunization schedule, and to examine the factors that may serve as predictors of vaccine hesitancy. Attitudes toward vaccination with influenza and COVID-19 vaccines among different population groups were studied and predictors of vaccination were identified. An analysis of reported adverse events (local, systemic, allergic) after vaccination with vaccines against COVID-19 (vector-based and mRNA-based) was performed and the association between the severity and duration of reactions with the characteristics of the study respondents was investigated.

On the basis of the analyzed intensive and extensive epidemiological indicators, in patients with HAI, a model for surveillance in a neonatal intensive care unit is proposed, 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 has been supplemented, giving direction in the formation of antibiotic policy in the neonatal intensive care unit. Recommendations for the prevention of neonatal HAIs have been systematized - general and specific for indicator infections, and for the latter, package measures for prevention (bundles) have been defined.

Examining extra- and intradialysis risk factors confirmed the role of vascular access and duration of dialysis treatment over 5 years as predictors significantly associated with increased risk for HEV IgG positivity and consumption of bottled water, with lower levels of HEV IgG seroprevalence among hemodialysis patients. The incidence 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. Gender and age trends in the prevalence of anti-HEV IgG, as a marker of past HEV infection, and anti-HEV IgM, as a marker of recent/current HEV infection, in 7 patient subpopulations were assessed. An algorithm for the investigation of markers for hepatitis E virus infection in immunocompetent and immunocompromised patients is presented and systematized. The data on the prevalent genotypes and subgenotypes of HEV in the country, based on molecular studies among a heterogeneous population of patients, have been supplemented.

V. Citations of the candidate's publications in the national and foreign literature (publication image).

Dr. Rangelova's scientific works have 36 positive citations, in national and international databases (Scopus and/or Web of Science), with a total **IF=86.114**, in the prestigious scientific journals: **Frontiers in Public Health, Journal of Infection in Developing Countries , Journal of Clinical Medicine, Children, MDPI, Frontiers in Psychology, etc.**

h-index = 3 /Scopus/; h-index= 4 /ResearchGate/; h-index =4 /Google Scholar/.

VI. Comprehensive, qualitative evaluation of the teaching-methodical and teaching activity, incl. scientific guidance of students, doctoral students, specialists.

Dr. Vanya Rangelova, MD, PhD teaches epidemiology of infectious diseases to students of medicine, dentistry, pharmacy, interns - medical inspectors of public health, as well as

participates in the conduct of the relevant semester exams at the MU-Plovdiv. She has a total scientific and teaching experience of 7 years.

For the 2020/2021 academic year, Dr. Rangelova has 453 hours. auditorium occupancy. In 2021/2022, the study load is 582 hours, and for 2022/2023 – 535 hours, with a mandatory norm of 360 hours.

VII. Critical notes and recommendations.

I recommend, on chief assistant professor Dr. Vanya Rangelova, to continue to publish her valuable scientific works, to work with the same enthusiasm in educational activities as well as in the Scientific Society for Epidemiology of Infectious and Non-Infectious Diseases, as a member of the Management Board, to raise the authority of the science of epidemiology.

VIII. General assessment of the applicant's compliance with the minimum national requirements under Art. 2b, para. 2 and 3, respectively, to the requirements under Art. 2b, para. 5 of the Law on the Development of the Academic Staff of the Republic of Bulgaria and the specific requirements for MU - Plovdiv, by direction and for units with/without clinical activity, defined in the Regulations for Academic Development at the Medical University - Plovdiv.

Summary table for self-assessment by MANDATORY MINIMUM SCIENTOMETRIC INDICATORS OF MU-PLOVDIV FOR FIELD 7.1. MEDICINE (medico-biological) and 7.4. PUBLIC HEALTH

Group of Indicators	Content	Associate Professor	Ch. Ass. Prof. Vanya Rangelova, MD, PhD
A	Indicator 1	50	50
B	Indicator 2	-	-
C	Indicators 3 or 4	100	100
D	Sum of indicators 5 to 9	220 points 15 articles, of which 10 in journals referenced in Scopus and/or Web of Science, incl. 5 articles with IF	697.2
E	Sum of indicator 10 to 12	200 points 10 citations in journals referenced in Scopus and/or Web of Science	765

F	Sum of indicators 13 to 22	80 points - 2 scientific projects (incl. Intra-university projects) - acquired specialty	308.02
G	Sum of the indicators: Teaching activity	350	655.5
Oveall		1000	2575.72

IX. Conclusion

The scientific-research and teaching activities of Ch. Ass. Prof. Vanya Rangelova Rangelova PhD, meets and exceeds the mandatory minimum national requirements, for scientific and teaching activities, for occupying the academic position "Associate Professor", according to the present Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation and the Regulations for occupying the academic position, adopted in the Regulations for the structure and operation of the MU-Plovdiv.

I will vote in favour of the the candidacy of Ch. assistant professor Vanya Rangelova Rangelova, PhD, for the occupation of the academic position "Docent", in the scientific specialty "Epidemiology", professional direction 7.1. "Medicine", field of higher education 7. "Health and sport", at the department of "Epidemiology and Disaster Medicine", at the Faculty of Public Health, of the Medical University of Plovdiv.

26.02.2024

Stara Zagora

Signature:



Prof. Dr. Irena Mladenova-Hristova, PhD