



STATEMENT

by Associate Professor Dimitar Simeonov Shalamanov, MD, PhD
to occupy an academic position "Associate Professor" at the NCIPD

The statement was prepared in accordance with Order No. 524 of December 19, 2022 of the Director of the NCIPD and in accordance with the announcement made in State Gazette No. 102 of December 23, 2022.

According to this procedure, documents from only candidate - *Dr. Maria Angelova Pishmisheva-Peleva, PhD*, Head of the Department of Infectious Diseases at the Multiprofile Hospital for Active Treatment, Pazardzhik, were submitted to the NCIPD within the established deadline.

General data about the candidate

Dr. Maria Pishmisheva-Peleva graduated medical education in 1989 at MU Plovdiv and started working as a general practitioner until 1992, when she started working at the Department of Infectious Diseases /Multiprofile Hospital for Active Treatment, Pazardzhik. Consecutively, she held the positions of resident physician in infectious diseases (until 1999), senior physician (from 1999 to 2013) and head of department (from 2013 to date). From 1997 she is an Infectious Diseases specialist. In 2019 she defended her dissertation on "Clinical-epidemiological aspects of acute hepatitis E infection" and gained the educational and scientific degree "Doctor" – (Doctor of Philosophy – PhD). He speaks German, Russian, English.

Analysis of research activity

Dr. Pishmisheva participated in the competition for the academic position "Associate Professor" with a total number of 110 scientific publications and scientific events participations – of which 41 publications and 14 participations /55 in total/ of them are after dissertation's defence.

11 have been published in international scientific journals and journals with an impact factor and impact rank, and 30 - in Bulgarian scientific papers. She is the independent author of a monograph published in 2022 on the topic "*Hepatitis E - exotic or silent existence*" and participates as a co-author in three other monographs with a clinical-epidemiological focus. In addition, she participated with 14 reports in scientific forums held in our country. They have been dedicated to Personalized Medicine, Viral Hepatitis, HIV/AIDS infection and co-infections, Microbiology and the COVID 19 pandemic. The main publications are related to the clinic of current transmissible, airborne, intestinal infectious diseases. This situation corresponds directly to the scientific discipline of epidemiology, which integrates knowledge from medico-biological, medico-clinical and medico-social disciplines; in this case – with the clinic of infectious diseases. Considering epidemiology is an interdisciplinary scientific field, the scientific works of Dr. Pishmisheva-Peleva successfully fit into the complex of knowledge that is useful for infectious epidemiology and enriches epidemiological studies in a unique way. The theory and practice of epidemiology abounds in numerous evidences of successful interaction and application of research methods from the three main scientific directions mentioned above.

Scientific contributions relevant to epidemiology

The scientific interest of Dr. Pishmisheva-Peleva is Hepatitis E. The disease is recently new to the medical community. The epidemic situation in Bulgaria and in the world is not fully understood, despite the observations of epidemiologists, virologists and clinicians in countries on all continents. In this regard, from an epidemiological point of view, the following contributions can be distinguished in the presented scientific developments:

1. An extended epidemiological study was carried out on the reservoir of the infection in the Pazardzhik region, and the carriers of the causative virus among the population were clarified. For this purpose, several populations were followed according to clinical and epidemiological criteria - patients with acute Hepatitis E who were hospitalized, contact persons, healthy persons closed communities.

The data are important in order to clarify the presence of the virus in the human population, respectively - allow to draw conclusions about its territorial distribution. They can be used when comparing the spread of the infection in our country with the range of the population of this

biopathogen in other countries and regions. The data for the fourth category are original and yet important because they reflect studies among male inmates serving prison terms. All research in this direction contributes to clarifying the sources of HEV-infection. The contribution is of a completely scientific nature.

2. The spread of the hepatitis E virus in pigs was studied. For this purpose, pigs of different age groups (1-6 months) from four different pig farms in the region were examined. Seropositive animals ranged from 16.6% to 66.6%. Research on this point is also original because it is the first in our country and focuses on the relationship/interaction of epidemiology with veterinary medicine. The contribution can be classified as scientific-methodical.

3. The established specific antibodies of the IgM class against the hepatitis E virus for a long period (24 months) in patients are an indicator of the persistence of acute hepatitis E; and from there – for potential infectious and epidemic risks for others for a longer time than the appearance of the disease. The contribution is also scientific and methodical.

4. The established comorbidity in patients with acute Hepatitis E (81.3 %) draws attention to the high probability of combining this infection with accompanying chronic diseases (for example, with Diabetes, 23 %), with other liver diseases or with harmful habits such as drug use of alcohol (32.4 %). The contribution is clinical-epidemiological, and it is closely related to the accurate registration of the infectious diseases in Bulgaria and therefore has an applied nature.

5. The presented diagnostic algorithm for acute hepatitis E mainly concerns the clinic, however, it can also be defined as an applied clinical-epidemiological one, and supports not only the diagnosis, but also the accurate registration of the disease.

In addition to Hepatitis E, Dr. Pishmisheva-Peleva's research has also focused on several other infectious diseases. Their contributions are:

1. *RNA* of the causative agent of Hemorrhagic fever with renal syndrome was isolated from a patient with HFRS – *Puumala hantavirus*. It is a matter of elucidating an etiology, and therefore the contribution is virological-epidemiological.

2. The anti-vaccine movements that activated during the corona virus immunization campaign are discussed. The contribution is directly related to immunoprophylaxis, which is one of the

powerful modern means of controlling the epidemic process in a number of infections; respectively, it is related to applied epidemiology.

3. Studies on viral load, specific antibodies and other pathogenetic aspects of SARS CoV2 infection are clinical as well as epidemiological. They elucidate the sources of infection and to some extent the mechanism of transmission.

4. The article about Healthcare history in Pazardzhik region is a contribution to social medicine, non-infectious epidemiology and public health of a methodical nature. By the appropriate use of the historical method, the development of the health system in this region of the country was studied.

Conclusion

The results obtained by Dr. Maria Pishmisheva-Peleva are significant, owing to the large number of publications that focus on the clinical course and epidemiology of current and socially significant infectious diseases. I highly appreciate the research and applied value of the candidate's scientific works.

The scientific production is fully sufficient in terms of volume, content, degree of innovation and scientific achievements to cover the requirements of the national regulatory documents for acquiring scientific degrees and occupying academic positions, specifically - for awarding the academic position "Associate Professor".

On these grounds, I give my positive vote and propose to the respected members of the Scientific Jury to vote positively for Dr. Maria Angelova Pishmisheva-Peleva, PhD, to take the academic position of "Associate Professor" at the NCIPD.

March 24, 2023

Prepared the statement

Associate Professor Dr. Dimitar Shalamanov, MD, PhD