



**TO
MEMBERS OF THE SCIENTIFIC JURY
DETERMINED BY ORDER No.
521/15.12.2022. OF THE DIRECTOR OF
NCIPD**

STATEMENT

on competition for the selection of "Associate Professor" in the field of higher education 4. Natural sciences, mathematics and informatics, professional direction 4.3 Biological sciences, "Microbiology", for the needs of the "Microbiology" department NCIPD, announced in the State Gazette no. 87/01.11.2022 with participant Ch. Assistant Professor Iva Trifonova, PhD from the Department of Microbiology, National Center for Infectious and Parasitic Diseases.

Written by: Assoc. Prof. Ivan Nikolaev Ivanov, head of the National Reference Laboratory for Control and Monitoring of Antimicrobial Resistance, dept. Microbiology, NCIPD

I declare that I have no conflict of interest with the candidate and I am not a related person, in the sense of § 1, item 2a and item 5 of the additional provisions of the DASRBA, as well as that I have no co-authored publications from the attached list.

General assessment of the procedure documentation

The presented application documents have been prepared correctly and in accordance with the Act on Development of the Academic Staff in the Republic of Bulgaria and the regulations for its implementation at the NCIPD. The documentation for the competition is structured according to the requirements and makes it possible to follow the research, applied-research and teaching activities of the candidate, according to the adopted qualitative and quantitative criteria. No plagiarism alerts were registered.

Brief biographical data and professional development

Ch. assistant professor Iva Trifonova graduated with a MSc degree in the Faculty of Biology of the "St. Kliment Ohridski" majoring in "Molecular Biology" in 2007. She began her

professional development as a full-time doctoral student at the "NRL Tick borne and Vector-Transmitted Infections, Leptospire and Listeria" in the Department of Microbiology of the National Center for Disease Control and Prevention, where later, after a successful defense, she rose to the position of chief assistant and currently lead. In 2017, she acquired a Microbiology specialty.

The candidate has completed two specializations abroad, concerning molecular biological techniques for diagnosis of vector-borne infections and a number of other. She has participated in numerous postgraduate courses in microbiology. She is fluent in English and has excellent computer skills. She is a member of the Bulgarian Association of Microbiologists (BAM).

Research activity

The scientific interests of Ch. Associate Professor Trifonova are in the field of modern molecular and serological diagnostics and typing of vector-borne bacterial and viral pathogens.

The candidate participated in the competition with a total of 48 scientific publications. Of the 37 published after the defense of her dissertation work, the articles indexed in SCOPUS are 27 with a total impact factor of 35.211. There are four publications with an impact rank of Q1 and four with Q2. She a co-authored one book chapter.

A total of 107 participations in scientific forums are presented, of which 80 in Bulgarian and 27 in international ones. The number of citations listed without self-citations is 73, but my SCOPUS check showed that they are actually 89, resulting the candidate's h-index at 5 (7 with self-citations included).

The number of research projects in which the candidate has participated is also substantial - 10 funded by international institutions, NSF as well as in a National programme.

The fundamental and applied research contributions are grouped in various areas such as (1) Ecological-epidemiological studies; (2) Studies on vectors of viral and bacterial transmissible infections; (3) Studies on viral transmissible infections; (4) Studies on viral hemorrhagic fevers; (5) Sero-epidemiological studies on the spread of viral hemorrhagic fevers and vector-transmissible infections in the country; (6) Studies on leptospirosis in Bulgaria; (7) Listeriosis serotyping; (8) Studies on the antibody response to synthetic peptides in Lyme disease; (9) Viral load studies in patients with COVID-19 infection.

The contributions of the overall work can be summarized as follows:

1. By means of molecular genetic methods, the reservoirs of the causative agents of Lyme borreliosis and human granulocytic anaplasmosis have been established and studied. The reservoirs of the main zoonoses were also studied in our country.
2. For the first time, conventional and Real-time RT-PCR systems were introduced in the country for detection of viruses causing transmissible infections (DOBV and PUUV).
3. Pioneering are the studies carried with molecular genetic methods for detection of vectors of viral and bacterial transmissible infections. The circulation of genetic lineage 2 of the West Nile virus in the country has been confirmed.
4. The diagnostic capabilities of various serological tests have been investigated to detect viral hemorrhagic fevers and the etiology of cases with fevers of unknown origin.
5. The first large-scale seroepidemiological studies on the spread of viral and vector hemorrhagic fevers infections in the country are performed.
6. Diagnostic methods for leptospirosis have been improved.
7. Serotyping of *Listeria monocytogenes* directly from clinical specimens was done.
8. The antibody response was studied in patients with various manifestations of Lyme disease to four synthetic C6 peptide antigens.
9. The viral load in patients with COVID-19 infection was found to be inversely related to the serum antibody response. A correlation was found between severe clinical forms and higher viral load, higher levels of IgA-antibodies and cytokines IL-1p, IL-10 and IL-18.

Teaching and expert activity

Ch. Assistant Professor Trifonova conducts lectures, exercises and seminars, in accordance with the programme of the National Center for Postgraduate Education. She is engaged in consulting, methodological and experimental-organizational activities of enrolled specialists, graduates and doctoral students and specialists continuing their qualification, as evidenced by her average annual teaching workload of 23.8 hours (94.9 in total) for the last 5 years.

In conclusion, according to the submitted reference for agreement with the minimum national criteria, the candidate shows a result almost twice exceeding the criteria for the academic position "Associated Professor". Based on the presented scientometric indicators and the volume of teaching and organizational activity, I believe Ch. Assistant Professor Iva Trifonova fully fulfills the criteria for acquiring the academic position "Associate Professor" at the NCIPD and I suggest to the esteemed jury to support her candidacy.

Date: 30/01/2023



/ Assoc. Prof Ivan Ivanov/