



To the members of the scientific jury  
determined by Order No. 521/15.12.2022  
of the Director of the NCIPD

## OPINION

from

Associate Professor Viktoria Stefanova Levterova , MD , Head Department "Microbiology"  
and NRL "Molecular Microbiology",  
NCIPD

**Regarding:** Competition for filling the academic position of "ASSOCIATE PROFESSOR", in the scientific specialty "Microbiology", for the needs of the Department of Microbiology of the NCIPD, announced in SG no. 87 of 01.11.2022 with a single candidate chief assistant Iva Petrova Trifonova, dm.

One candidate participated in the announced competition - Iva Petrova Trifonova, dm, ch. assistant in the Department of "Microbiology" at the NCIPD - Sofia. The precisely prepared documents submitted by the candidate for the competition are in accordance with the requirements of the law of the development of the academic staff in the republic of Bulgaria, the Rules and Appendix 1 of the NCIPD - Sofia.

The following procedure for determining the composition of the scientific jury was also followed.

I declare that I have no conflict of interest, including co-authorship with the candidate.

### CAREER DEVELOPMENT

Iva Petrova Trifonova completed her higher education at Sofia University "St. Kliment Ohridski" - Faculty of Biology in 2007. In 2005 he graduated as a " Bachelor in Molecular Biology" and in 2007 he also graduated as a " master's degree in Molecular Virology".

From 2008 to 2010 she is a full-time doctoral student at the National Center for Microbiology, Department of Microbiology, the national reference laboratory " Tick-Vector

Transmitted Infections, Leptospira and Listeria".

In 2010 the candidate begins work in NRL " Tick-vector transmitted infections, leptospira and listeria", dept Microbiology at the *NCIPD* – Sofia as a biologist.

In 2011, she successfully defended her dissertation and obtained the educational and scientific degree of Doctor of Microbiology with her studies on optimization of serological diagnostics and studies on the pathogenesis of Lyme borreliosis with recombinant *B. burgdorferi* antigens.

In 2012 I. Trifonova won a competition for chief assistant in the NRL " Tick- borne - vector-borne infections, leptospira and listeria ", Department of Microbiology at the National Center for Infectious and Parasitic Diseases - Sofia.

In 2017, she majored in Microbiology.

In 2020 Ms. Trifonova is already leading the national reference laboratory " Tick-Vector Transmitted Infections, Leptospira and Listeria ".

Continuing her education, she begins a second one in 2021, specializing in clinical virology.

She began her teaching career in the "Microbiology" department of the National Center for Infectious and Parasitic Diseases.

She also carries out her scientific activities at the National Institute of Medical Research, where she is in the team of Professor I. Hristova, focusing on research on the diagnosis and pathogenesis of vector-borne bacterial and viral pathogens of infectious diseases.

Since 2010 until 2022, the candidate conducts numerous courses, workshops and qualifications in the country and abroad in connection with vector-borne infections, whole genome sequencing, etc. In 2010 she is majoring in Aristotle University of Thessaloniki, Thessaloniki, Greece. The specialization is in Molecular methods for the diagnosis of viral transmissible infections. In 2017 I. Trifonova is majoring in the Istituto Superiore di Sanita, Rome, Italy for surveillance and molecular diagnosis of vector-borne viruses: flaviviruses.

Iva Trifonova is a member of the prestigious scientific and social organization - Bulgarian Association of Microbiology (BAM).

The defense of her dissertation and the acquisition of the title "Doctor", her growth to chief assistant, specializations and reaching the position of head of NRL, are indicators of the upward professional development and achieving to expand the candidate's knowledge in microbiology and virology, as sciences.

## **RESEARCH ACTIVITY**

Iva Trifonova presented 48 scientific papers and 107 participations in scientific forums

for the competition, distributed as follows:

- Scientific articles in international journals and magazines with impact factor and impact rank are 22 with a total impact factor of 35.211 ;
- A book chapter in the field of research on COVID -19, namely “Viral load, dynamics of specific antibodies and levels of major cytokines according to the severity of COVID-19. In: COVID-19 in 2020-2021" edited by Prof. I. Hristova and Assoc. N. Yancheva. It was published by scientific specialized publishing house Arbilis in 2022.
- 27 reports and posters presented at congresses and scientific conferences abroad;
- 80 reports and poster presentations presented at congresses and scientific conferences in the country.

This is proof of systematicity and persistence in research activity with good methodical and professional preparation, significant scientific activity and is an expression of upward career development.

The personal contribution of the author is evidenced by the fact that Ch. As. Iva Trifonova is first author in 7 publications and second author also in 7 publications. From the author reference submitted for the competition, 73 citations of 15 of the articles were noted in prestigious international publications. This exceeds many times the required 20 citations according to the Rules of the NCIPD for this academic position. It is noteworthy that most of the citations are in foreign publications - 68, and the remaining 5 - in Bulgarian sources. This shows that a large part of the articles have gained international fame and recognition from many author collectives, published in various prestigious journals from all over the world. This is also proof of the interest of the international scientific community in the developed problems and the achieved results.

## **MAIN SCIENTIFIC DIRECTIONS AND CONTRIBUTIONS**

The main directions in the research activity of ch. as. Iva Trifonova are six:

1. Ecological - epidemiological studies on rodents;
2. Pioneering studies for the country on vectors of viral and bacterial transmissible infections;
3. Pioneering seroepidemiological studies on the spread of viral hemorrhagic fevers and vector-transmissible infections in the country;
4. Studies on leptospirosis in Bulgaria;



5. First studies in the country on the antibody response against synthetic peptides in Lyme borreliosis;
6. Pioneering country studies on viral load in patients with COVID-19 infection.

The candidate's contributions can be summarized as follows:

In the scientific works of Ch. As. Iva Trifonova, the results of systematic studies of the causative agents, vectors and reservoirs of the main vector-transmissible bacterial and viral zoonoses in our country are reflected. Most of the studies are pioneer for the country. These studies are related to the introduction of a number of new research methods, such as different variants of Polymerase chain reaction (Real time RT-PCR, nested PCR), as well as sequencing of the genome of some viruses.

The complex examination of the research done on each of the participants in the natural chains of transmission of the various diseases contributes to clarifying the current state of these diseases in our country, which is a huge contribution.

## **PARTICIPATION IN SCIENTIFIC RESEARCH PROJECTS**

Ch. as. Iva Trifonova has participated in 10 research projects. She has participated in the research teams of four internationally funded projects, six funded by the National Research Foundation and one national program.

## **EDUCATIONAL AND TEACHING ACTIVITY**

The educational and teaching activities of the candidate began in the "Microbiology" department of the National Center for Infectious and Parasitic Diseases, where she still works. The lectures and exercises are in the field of the causative agents, vectors and reservoirs of the main vector-transmissible bacterial and viral zoonoses in our country, as well as the methods of their research.

## **CONCLUSION**

Ch. As. Iva Trifonova, MD is a teacher and scientist in the field of clinical microbiology and virology. Her research and developments have been published in renowned scientific journals. Most of them concern unexplored problems and contain significant scientific and scientific-applied contributions. The total number of points from the scientometrics and

indicators with which the candidate participates in the competition is 795 points, with the minimum required for the academic position "Associate Professor" - 400.

Taking into account the scientometric and indicators, her contributions, her participation in scientific research projects and the commitment to educational and teaching activities, I can confidently state that they fully satisfy the criteria of law on the development of the academic staff in the republic of Bulgaria, the Regulations for its application and the Regulations of the NCIPD for occupying the academic position "associate professor".

Based on all of the abovementioned, I recommend to the respected members of the scientific jury to support the candidacy and to propose to the Scientific Council of the NCIPD ch. as. Iva Trifonova to be elected to the academic position of "ASSOCIATE PROFESSOR" in the scientific specialty "MICROBIOLOGY" for the needs of the Department of "Microbiology" at the National Center for Infectious and Parasitic Diseases.

27.01.2023



Associate Professor Viktoria Stefanova Levterova, MD