

To the honorable members of the Scientific Jury  
Designated by order No. 510/16.12.2019  
Of the Director of the National Center  
for Infectious and Parasitic Diseases  
Prof. Todor Kantardjiev, MD, DSc

## Statement of Opinion

**By Assoc. prof. Lyubka Yordanova Doumanova, PhD**  
Department of Virology in the Stephan Angeloff Institute of Virology,  
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**On the PhD thesis submitted by Silvia Emilova Voleva**  
for defense of the educational and scientific degree “Doctor” in the scientific specialty  
“Virology” in the professional field 4.3. Biological Sciences

**Title of the thesis:** “Serological and molecular genetic study of the prevalence of parvovirus B19V in pregnant women and women of childbearing age in Bulgaria”

The present PhD thesis refers a 5 year study which monitors through serologic and molecular genetic methods the circulation and spread, as well as the intensity and the clinical aspect of parvovirus B19 (B19V) infection among pregnant women, risk and pathological pregnancy included, women with fertility problems, and newborns, as well.

It is a well-known fact that, worldwide, viral infections in pregnant women are a major cause of complications and mortality, with B19V being one of the important but widely neglected viral agents. Therefore, the search for opportunities to introduce and promote screening programs and to develop modern approaches for the rapid and reliable diagnosis of infections with this important pathogen is a pressing issue. The topic is also a pragmatic one with a practical target for specialists in obstetrics, because one of the main author’s contributions is the development of a diagnostic algorithm for pregnancy monitoring when B19V infection is present.

The so formulated aim is informative, clearly and precisely combining the directions of the experimental work. To achieve the goal, five specific and relevant research tasks are assigned: (i) detecting B19V infection in the sera of different target groups of women; (ii) detecting B19V nucleic acid in clinical specimens and determining the etiological role of B19V in the development of certain clinical syndromes during pregnancy; (iii) performing genetic analysis of B19V sequences; (iv) comparing the results from the serologic and

