Statement

by Assoc. Prof. Miglena Slavcheva Stamboliyska-Nikolova, MD, PhD Member of Scientific Jury pursuant to Order No R-109-326 from 1 August 2022 of the Rector of the Medical University – Varna

I have been elected as member of the Scientific Jury, pursuant to Order of the Rector of MU-Varna and on the basis of protocol No. 1 of 10.08.2022, I am determined to prepare a statement in Bulgarian and English in connection with the procedure for awarding the educational and scientific degree "Doctor", to candidate Dr. Pavlina Georgieva Boykova-Valcheva, at the Medical University of Varna. In accordance with Article 30 (3) of the requirements of Development of academic staff in the Republic of Bulgaria Act and implementing Regulation and the Rules for Development of Academic staff of Medical University Varna.

Re: PhD thesis of Dr. Pavlina Boykova, PhD student of independent training at the Second Department of Internal Medicine, section of Gastroenterology, Faculty of Medicine, MU-Varna. After preliminary discussion of an extended department counsil at the 2nd Department of Internal Medicine on 05Jul.2022, the dissertation is directed for public defense for the acquisition of the educational and scientific degree "Doctor of Philosophy" in professional field 7.1 Medicine and doctoral program "Gastroenterology" with scientific supervisor Prof. Iskren Kotzev, PhD, DSc.

Theme of PhD Thesis: "Screening, Diagnosis and Clinical Evaluation of Patients with Non-Alcoholic Fatty Liver Disease"

1. Choice of topic and importance:

Non-alcoholic fatty liver disease (NAFLD) and its management has been the subject of particular study in the last 10-15 years. However, this disease raises many unsolved problems. They are related to adequate clinical assessment, evolution, progression and above all screening with a view to quick, timely and reliable diagnosis of the disease and stopping the progression, through adequate measures. In this aspect, the topic of the dissertation work is very current and timely. NAFLD is a serious health problem worldwide, with an interdisciplinary nature and continues to excite: hepatologists, gastroenterologists, internists, endocrinologists, nutritionists, etc. Good knowledge of the literature on this issue, in recent years, related to a change in some concepts, regarding the severity and progression of the disease, has given the PhD student an advantage to focus on a completely modern and significant choice of topic.

2. Structure and content of the dissertation:

The dissertation is correct and well-structured as required. Contains an introduction, overview, objective, tasks, results, discussion, conclusions and bookwriting in correct distribution and ratio. Purpose and tasks are correctly formulated. The results and the resulting data are presented and well-illustrated with tables and figures (50 figures and 58 tables). The statistical processing of the data is modern enough, with well-chosen methods for evidentially and comparability. The interpretation and discussion are done in detail following the thesis compared to the literature data.

There is a summary with a conclusion. The conclusions are formulated and contain the answer to the set tasks. The literary overview is in sufficient volume, including 172 sources, of which only 9 are in Cyrillic and 163 are in Latin.

3. Evaluation of the dissertation:

The PhD student has set himself a very difficult and ambitious task, in a modern aspect, to develop a study dedicated to NAFLD, with the results of the study providing answers to unsolved questions, some of which are significant. A good knowledge of the current literature on this problem, as well as a high professional qualification of the doctoral student, are the starting points for the perfect conduct of the study. The doctoral student examines very thoroughly the possibilities of noninvasive methods, including a number of laboratory scores, indices, anthropometric indicators and imaging methods, with which patients with NAFLD can be reliably diagnosed and steatosis and fibrosis graded in routine practice. The merit of the work is, on the one hand, the proof of all risk factors and all components of the metabolic syndrome and their relationship with NAFLD. On the other hand is the definition of groups stratified according to the risk of disease progression. A strong point of the dissertation is the excellent choice of statistical methods, mainly correlational, with great evidence that allow to derive essential dependencies, associations, comparison of data and derivation of predictors and risks. The performance of the study, including the ultrasound examination and the transient elastography with fiberscan, is entirely the work of the doctoral student. An innovative highlight of the dissertation work is the study of SK18 keratin, for the first time in Bulgaria, as a biomarker for hepatoapoptosis and available inflammation, in cases of nonalcoholic steatohepatitis. The proposed algorithm for screening and diagnosis of NAFLD is quite detailed and consistent. It is the result of in-depth observation, practical experience, knowledge of the dissertation student, as well as the immediate results of the research and is a successful completion of the dissertation work. The conclusions are well argued and comprehensive. Contributions are correctly valued and presented. Most contributions have a scientific-applied nature and are valuable for daily clinical practice. Two of the contributions have an original scientific character and add to the value and significance of the work.

I suggest that, in connection with the scientifically applicable nature of this work, all the information should find a place in the publication of a teaching aid or manual for screening diagnostics and clinical evaluation of patients with NAFLD.

In conclusion:

The presented dissertation work is a very well developed scientific treatise on some unsolved problems of NAFLD. The work is valuable and is a modern comprehensive, multi-layered research, for which PhD student Pavlina Boykova deserves congratulations.

The author has attached a list of 4 periodical publications thematically related to the dissertation work. The author's reference is in accordance with the national required minimum points by indicators. My recommendation to Dr. Hristov is to expand his publications and to target the articles in academic journals indexed in global scientific databases like Web of Science and Scopus.

I fully positively evaluate the presented dissertation work, which is in line with the requirements.

The PhD candidate fulfill all the necessary criterias that gives me the reason for a positive statement and I am pleased to give my positive vote for awarding the educational and scientific degree "Doctor of Philosophy" to to Dr. Pavlina Georgieva Boykova-Valcheva.

I recommend to the esteemed members of Scientific jury to positive vote in favor for Dr. Pavlina Boykova.

25 September 2022 City of Varna