

## STATEMENT

**Prof. Dr. Vanya Alexandrova Gerova-Nankova, MD, PhD,**  
**Clinic of Gastroenterology, University Hospital "Tsaritsa Yoanna – ISUL", Sofia**

By order of the-109-263/ 15.05.2023 G. the rector of the Medical University " Prof.Dr. Paraskev Stoyanov " - Varna I have been appointed to participate in a scientific jury in connection with the acquisition of "Doctor" by **Dr. Mirela Radkova Moneva-Petrova** in the field of Higher Education: 7. Health and sports, professional field; 7.1 Medicine and doctoral program "Gastroenterology", with the topic of the dissertation "**Obesity in patients with chronic inflammatory bowel diseases**"

**Scientific Supervisor:** Assoc. Prof. Dr. Antonia Yordanova Atanasova, MD, DSc

At the first meeting of the scientific jury, I have been appointed to make a statement.

### **1. General presentation of the procedure and the doctoral student**

The set of materials provided to me in paper and electronic form is perfectly prepared in accordance with the requirements of the law in the Republic Of Bulgaria, the regulations for its application and the rules for development of the academic staff of MU-Varna.

### **2. Short biographical data for the PhD student**

Dr. Mirela Radkova Moneva – Petrova was born on 9 May 1991. in Fr. Varna. She completed her primary and secondary education in the town of Balchik with an excellent success. She graduated in "Medicine" in 2017 the Medical University " Prof. Dr. Paraskev Stoyanov " Varna. From 2018 she is a resident in the specialty " Gastroenterology“ at the clinic of Internal diseases in the University Hospital - Varna a department of MMA - Sofia. On 09.10.2020 she is enrolled as a PhD student in full-time education at the Second Department "Internal diseases" of the Medical University - Varna.

Dr. Moneva-Petrova has interests in the field of inflammatory bowel diseases, ultrasound and endoscopic diagnosis of the gastrointestinal tract. She is fluent in English and Russian. She is a member of the BMA and the Society of Gastroenterology, gastrointestinal endoscopy and abdominal ultrasound.

The clinical study was carried out after obtaining permission from the committee on research ethics at MU-Varna - protocol/decision apostille 100, meeting on 25.02.2021. All participants in the study signed informed consent.

The study was funded under a project of the "Science" Fund at the Medical University – Varna, project apostille 20002 "Metabolic syndrome in patients with inflammatory bowel diseases"

### **3. Scientific significance of the chosen topic and innovation**

The dissertation is dedicated to an important but neglected problem in modern medicine - the relationship between obesity and chronic inflammatory bowel diseases (HIVDC). Epidemiological studies in recent years have shown that the incidence of HDI increases in parallel with an increase in overweight and obesity among these patients. Contrary to popular belief, about 15-40% of patients with CVD are obese, and an additional 20-40% are overweight. Adipocytic hypertrophy of intra-abdominal adipose tissue leads to metainflammation, which induces multiple pro-inflammatory mediators and contributes to the progression of these diseases. The understanding of the effects of obesity on the severity of HIVDC, their natural course, the development of disease complications and various types of therapy is incomplete, with studies conducted to date showing conflicting results. This necessitates the introduction of modern and reliable biomarkers to reflect the activity of HDD, as well as metainflammation in cases of overweight and obesity. In the autumn of 2022, the first European recommendations were issued in relation to the comprehensive approach for overweight and obese patients in the HDI population. In Bulgaria, no systematic analysis of the problems of obesity among patients with HVD has been carried out so far, which makes the topic extremely relevant.

### **4. Knowledge of the problem**

The PhD student Dr. Mirela Moneva-Petrova knows perfectly the state of the problem and appreciates the creative literary material. This is evidenced by the comprehensive Literary Review, which is based on a total of 356 literary sources, 5 of which are in Cyrillic and 351 in Latin; over 20% of them are from the last five years and about 50% from the last ten.

### **5. Characterization and evaluation of the dissertation**

The dissertation work of Dr. Mirela Moneva-Petrova is structured according to the procedural requirements. It contains 180 standard pages and is illustrated with 36 tables and 92 figures. It is written competently, very clearly, in order, in good Bulgarian language. **Purpose and tasks.** The

goal is clearly stated and reflects the essence of the study: to evaluate obesity in patients with Cvdd - Crohn's disease (BK) and ulcerative colitis (CK). In order to achieve this goal, 5 tasks are formulated that explore the different aspects of the assessment of obesity and its role on the activity and effectiveness of the treatment. The objectives are logically derived from the objective. **Material and methods, design of studies.** The study was prospective, but carried out entirely in the context of the Apostille-COVID19 pandemic. It included 78 OHIM patients, divided into 2 groups, respectively 40 with BK (20 with active BK and 20 in remission) and 38 with CK (16 with active CK and 22 in remission), who went through the clinic of Gastroenterology at the University Hospital „St Marina " - Varna from 02.2021 to 11.2022. Anthropometric measurements were carried out in all participants and the level of mir serum expression was studied: hsa-miR-17-5p, hsa-miR-29A-5p, hsa-miR-146a-5p, hsa-miR-142-3p, hsa-miR-155-5p, control cel-miR-39-3p and Human Lipocalin 2/NGAL. All methods used are described in detail. An extremely good impression is made by the selection of this panel of original and innovative biomarkers, which are compared with classical anthropometric indicators. **The results** are presented on 81 pages and reflect the diverse statistical methods with which PhD student Mirela Radkova Moneva-Petrova works freely to accomplish the tasks set. **The discussion** reveals the possibilities of the doctoral student to freely analyze the data from the literary sources and to compare them with the achieved results of the dissertation work. It makes a good impression that Dr. Moneva-Petrova compares her results with those of another Bulgarian author, who works with miRNAs. **Conclusions** are the logical result of the tasks set. As a summary of the results, profiles of patients with CK and CK overweight and obese in disease activity and remission and the direction of expression of the study markers relative to patients with normal body mass index (BMI) are presented.

## 6. Main scientific contributions

The contributions of Dr. Moneva-Petrova's dissertation are systematized and divided into three groups: theoretical, practical - applied and original. The most interesting are the contributions of an original nature:

- For the first time in Bulgaria, the tested panel of miRNAs and human Lipocalin-2/NGAL for evaluation of patients with CVDI obesity.
- For the first time in Bulgaria, the expression of the studied miRNAs and human Lipocalin-2/NGAL compared to the applied therapy and BMI in patients with Cvdd is described

## **7. Evaluation of publications on the thesis**

Publications and participations in scientific forums are divided as follows: 4 full-text publications and 5 participations in scientific forums. In all, Dr. Moneva-Petrova is the first author.

## **8. Personal participation of the PhD student**

In my opinion, the personal participation of the PhD student in the conducted dissertation research is indisputable and the formulated contributions and the results obtained are a personal merit of Dr. Moneva-Petrova and the scientific manager Assoc. Dr. Antonia Atanasova, D.M.N.

## **9. Autoreferat**

The authorship of Dr. Mirela Moneva-Petrova is sufficiently detailed, prepared according to the procedural requirements and reflects the main results and scientific contributions in the dissertation work.

## **Conclusion**

The dissertation work of Dr. Mirela Moneva-Petrova contains results that represent an important contribution to science and meet all requirements of the ZASRB, the regulations for implementation of the ZASRB and the corresponding Regulations of MU-Varna. The presented materials and dissertation results fully comply with the specific requirements of MU-Varna. The dissertation work shows that the PhD student Dr. Moneva-Petrova has in-depth theoretical knowledge and demonstrates qualities and skills for conducting scientific research independently.

In view of the above, I strongly express my strong opinion on the defense of the dissertation "Obesity in patients with chronic inflammatory bowel diseases " and I take the liberty of inviting the honorable members of the scientific jury to vote for the award of the educational and scientific degree "doctor" to Dr. Mirela Radkova Moneva-Petrova.

Date: 29. 06. 2023

Sofia

Prepared the statement:

Prof. Dr. Vanya Gerova-Nankova, MD, PhD

