

To

The Chairman of the Scientific Jury,

Appointed by Order# 109-263/ 15.05.2023

of the Rector of Medical University "Prof. Paraskev Stoyanov"

Varna

OPINION

By Prof. Dr. Anton Bozhidarov Tonchev

internal member for MU-Varna, habilitated in professional field 7.1 Medicine,

Medical University – Varna

of a dissertation paper with a title

"Obesity in patients with chronic inflammatory bowel diseases".

For acquiring the educational and scientific degree "Doctor"

doctoral Program "Gastroenterology"

field of Higher Education:7.Health and Sport, Professional field 7.1 Medicine

Author: Dr. Mirela Radkova Moneva-Petrova

doctoral student at the Second Department of Internal Diseases

Faculty of Medicine, MU-Varna

Scientific Officer: Prof. Antonia Yordanova Atanasova, PhD, PhD

1. Review procedure

By Order No R-109-263/15.05.2023 of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov" – Varna, on the basis of a decision of the Faculty Council of the Faculty of Medicine at the Medical University "Prof. Dr. Paraskev Stoyanov" – Varna on the **basis of Article 71(1)(2) and (4)** of the Rules for the Development of Academic Staff at the Medical University – Varna, I was appointed to present a summary on the dissertation work of Dr. **Mirela Radkova Moneva-Petrova** on the subject: "**Obesity in patients with chronic inflammatory bowel diseases**", to acquire the educational and scientific degree "Doctor" under the doctoral program "Gastroenterology" in the field of higher education 7. Health & Sports, Professional field 7.1 Medicine.

Dr. Moneva-Petrova is a medical doctor at CSMP Varna, Affiliate Dolni Chiflik, a doctor in a mobile emergency team and a doctor specializing in gastroenterology at the Clinic of Internal Diseases at the Medical Hospital of Varna, VMA – Sofia.

The materials presented by the applicant for the preparation of a review, as well as a paper dissertation and autoreferate are in accordance with the requirements of ZRASRB and the Rules for the conditions and procedure for obtaining academic degrees and holding academic positions at the Medical University "Prof. Paraskev Stoyanov" Varna.

2. Short biographical data of the applicant

Mirela Moneva was born in 1991 in Varna. He graduated from primary and secondary education in Balchik. He graduated from the Medical University "Prof. Dr. Paraskev Stoyanov" – Varna in the specialty "Medicine" in 2017.

Since 2018 she has been a graduate in Gastroenterology at the Clinic of Internal Diseases at the Hospital of Hospital – Varna at the Military Medical Academy – Sofia. On 9.10.2020 she was enrolled as a PhD student in full-time training at the Second Department of 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. He speaks English and Russian. He is a member of Bulgarian Medical Society and the Society of Gastroenterology, Gastrointestinal Endoscopy and Abdominal Echography.

3. Structure of the dissertation

The thesis is written in 180 pages: introduction 2 pages, literature review 41 pages, purpose, tasks and hypothesis 1 page, material and methods 7 pages, results 79 pages, discussion of results 12 pages, conclusions 2 pages-14, conclusion 2 pages, contributions 6 in number, 2 with a theoretical nature, 2 with a practical and applied nature and 2 with an original character, a bibliography of 356 literary sources. The work is illustrated with 92 figures and 36 tables. The clinical study was conducted following clearance by the Scientific Research Ethics Committee at MU-Varna – Protocol/Decision No 100, meeting on 25 February 2021. All participants in the study had signed informed consent. The study was funded by a project of the Science Fund at the Medical University of Varna, Project No 20002 ‘Metabolic syndrome in patients with inflammatory bowel diseases’.

4. Relevance of the dissertation

The topic is topical due to the increasing incidence of overweight and obesity among patients with inflammatory bowel diseases from the Bulgarian

population. This creates the need for a study of this comorbidity, which until recently was left neglected. The use of classical anthropometric assessment scales such as body mass index, waist circumference, waist circumference, and caliperomere abdominal fold measurement are not sufficient to convey the complex clinical picture of excess weight and dehydration in these patients, nor can they reveal the multifaceted effects on the phenotypic manifestation of Crohn's disease or Ulcerative colitis, the activity of these diseases. It is unclear how these classical methods of evaluation of dehydration affect non-invasive biomarkers C-reactive protein, faecal calprotectin, assessment scales such as CDAI, Mayo, which measure the normally achieved remission and the effectiveness of treatment. The selected miRNAs panel, as well as the levels of human Lipocalin-2/NGAL, which change in the course of activity and remission of both diseases under different therapeutic regimens, are innovative, useful biomarkers that open up new perspectives in monitoring these diseases.

5. Objectives and Methodology of the Study

The criteria for selecting the participants in the study are clearly presented. Laboratory techniques and statistical methods are described in detail. Pre-sampling positive ethical assessment information is available.

Conclusion: The materials and methods are described in such a way as to allow the experiments to be repeated by other researchers.

The goal is correctly defined and the tasks are well systematized. The conclusions are synchronized with the tasks and prove that the goal has been achieved.

6. Evaluation of results

The results span 79 standard pages, which contain the bulk of a total of 96 figures and 36 tables of dissertation. The figures are of very good quality and clearly visualize the thesis of the thesis.

Conclusion: the results presented support the thesis of the dissertation.

7. Contributions and importance of development for science and practice

The current dissertation paper examines for the first time in Bulgaria a panel of miRNAs and human Lipocalin-2/NGAL to evaluate patients with inflammatory intestinal diseases with obesity. For the first time in Bulgaria, the expression of the studied miRNAs and human Lipocalin-2/NGAL against the applied therapy and BMI in patients with inflammatory intestinal diseases was described. Threshold values are defined to distinguish miRNAs and human Lipocalin - 2/NGAL expression according to BMI, CRP, FCP, CDAI, Mayo score. A specific profile of patients with Crohn's disease and ulcerative colitis with obesity was prepared based on the expression of miRNAs and human Lipocalin-2/NGAL.

8. Evaluation of publications on dissertation

The thesis of Dr. **Moneva-Petrova includes** 4 scientific publications related to the topic of the dissertation – in national journals as first author, 5 participations in national forums also as first author.

9. Personal involvement of the author

Based on the provided thesis papers and publications, I believe that the personal participation of the applicant in the conducted research is **central**.

10. Autoreferate

The autoreferate presented together with the dissertation correctly reflects the main results achieved in the dissertation.

CONCLUSION

The dissertation work for the award of an educational and scientific degree “Doctor” in the field of higher education 7. Health and sport, professional field 7.1. Medicine, doctoral program “Gastroenterology” by Dr. **Mirela Radkova Moneva-Petrova complies with the ZRAS of the Republic of Bulgaria and the Regulations of MU-Varna for the acquisition of the degree “Doctor”/PhD. I will therefore vote positively** and allow myself to recommend the same to the other members of the Scientific Jury.



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Department of Anatomy and Cell Biology

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Varna, 4.7.2023