Chair and Department of Traumatology and Emergency Medicine
20-081 Lublin, ul. Staszica 16,☎i fax:(0-81)532 18 54
Head of the Chair:
Prof. dr hab. med. Adam Nogalski
e-mail:chirurgia.urazowa@umlub.pl

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REVIEW BY THE SCIENTIFIC ADVISOR
of the dissertation work by SEYTEKOVA AYZHAN NURLANOVNA
on the topic "Assessment of the post-reperfusion state of the myocardium in patients with excess body weight at different stages of rehabilitation"
Specialization: 8D10100 – Medicine

After completing her doctoral studies in 2023, Aizhan Seitekova continued to work at the Department of Family Medicine in Karaganda medical university and is currently an assistant professor at this department. She successfully combines teaching activities with scientific work and the completion of her dissertation project. As a result of the analytical work conducted to review the literature, we arrived at logical conclusions regarding the relevance and novelty of the scientific hypothesis about the significant role of patients' excess body weight in the rehabilitation processes following surgical interventions that restore blood flow in the coronary arteries of the heart.

The dissertation candidate thought through the objectives of this study quite thoroughly and discussed them appropriately with her academic advisors, among whom I was one. I would like to note Aizhan's good preparation during her doctoral studies, her skills in formulating the goals of scientific research, and her ability to logically justify the design of a scientific project. The candidate strictly adhered to the principles of scientific research ethics. She communicated directly with patients and provided them with detailed information about the specifics of the diagnostic process. After these detailed conversations, she obtained the patients' informed consent to participate in the study.

She personally personally conducted ultrasound examinations: measured geometric parameters, assessed the functional state of the heart, and calculated the thickness of the epicardial fat and the mass of the ventricular myocardium.

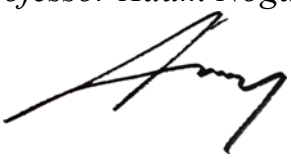
Aizhan Seitekova did not limit herself to clinical observations and echocardiography. She went further and, together with her colleagues, biochemists, began studying global cellular changes at the level of metabolism in blood plasma, as well as detecting cellular damage through the identification of extracellular nucleic acids and neutrophilic traps.

This enabled the dissertation author to develop a hypothetical model of post-reperfusion changes in patients with excess body weight. This model convincingly describes the mechanisms underlying the development of cellular metabolic disorders after coronary artery bypass surgery in patients who have disorders of fat metabolism along with excess body weight, but do not yet have obesity. The methods for diagnosing and predicting the risks of post-reperfusion disorders are protected by copyright certificates.

The dissertator, A.N. Seitekova, is well-educated and honest in her research and presentation of results. She interacts conscientiously with the editorial boards of scientific journals. She is able to accept critical comments and work diligently to eliminate shortcomings.

Seitekova Aizhan Nurlanovna has established herself as a scientist with great potential for further professional development. Aizhan Seitekova's dissertation meets the criteria for a completed scientific work and can be submitted for public defense. The author of the dissertation deserves to be awarded a Doctor of Philosophy degree.

Professor Adam Nogalski,



Medical University of Lublin