



Fund “Nauka” Project № 23002 Resume – Competition-Based Session 2023:

“Investigation of modern biomarkers in non-alcoholic fatty liver disease”

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Non-alcoholic fatty liver disease (NAFLD) is considered the hepatic manifestation of the metabolic syndrome and is characterized by the accumulation of triglycerides in the cytoplasm of hepatocytes. NAFLD is the most common chronic liver disease, with an estimated global prevalence of about 25%. The majority of patients with NAFLD will never develop liver-related complications, but in 5-10% of patients, NAFLD will progress to cirrhosis, end-stage liver disease, or hepatocellular carcinoma. NAFLD patients with advanced fibrosis are at the highest risk of developing cardiovascular, renal, and cirrhosis-related complications. Currently, liver biopsy is considered the reference method for evaluating liver steatosis and fibrosis stage, but due to its invasive nature, it is often the reason for informed refusal. This delays diagnosis, delays treatment and necessitates the search for non-invasive methods.

The expected results of the implementation of the project are related to the creation of an algorithm for the application of innovative non-invasive methods for modern diagnosis of non-alcoholic fatty liver disease. In addition, the data from the project will be included in a PhD thesis, which will contribute to the career growth of a member of the team.