



**Fund “Nauka” Project № 22001 Resume – Competition-Based Session 2022:**  
“Role of selected plasma microRNAs as diagnostic and prognostic biomarkers in  
myelodysplastic syndrome”

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MicroRNAs have a key role in the regulation of hematopoiesis and it has been established that there is correlation between their different expression in myelodysplastic syndrome (MDS) and the clinical course of the disease and its transformation into acute myeloid leukemia (AML).

The aim of this research is to determine how specific plasma microRNAs influence the diagnosis and prognosis of patients with different forms and risk groups of myelodysplastic syndrome. Similar studies in foreign literature are scarce, and in Bulgaria – absent.

Patients over 18 years of age, diagnosed with MDS according to the 2016 WHO diagnostic criteria as well as healthy controls will be included in the study. Risk will be determined according to the revised International Prognostic Scoring System (IPSS-R) and patients will be divided into two groups: high-risk MDS, including the categories of very high and high risk, and low-risk MDS, including the categories of very low, low, and intermediate risk.

The aim of the study is to determine the expression levels of some plasma microRNAs in MDS patients compared to healthy individuals and to establish their role as non-invasive biomarkers with diagnostic and prognostic value.