The Ministry of Education and Science reported that scientists of the Mari State University and the Ufa Federal Research Center of the Russian Academy of Sciences synthesized a new chemical compound, which could form the basis of promising antitumor drugs. Studies were conducted as part of the Priority 2030 program.

The developed substance has the ability to selectively affect tumor cells, minimally affecting healthy tissues. Its molecule combines a phenotiasin fragment with a triphenylphosphony group, which allows it to accurately find mitochondria – energy centers of cancer cells – and violate their functions.

Laboratory tests demonstrated the effectiveness of the connection against various types of malignant cells, including liver cancer, lung adenocarcinum, colorectal cancer and leukemia. The activity of the substance is observed already at low concentrations, which increases its therapeutic potential.

An additional advantage of development is the relative ease of synthesis.