

# Krasnoyarsk researchers to develop leukaemia test kit for the Ministry of Healthcare of Russia

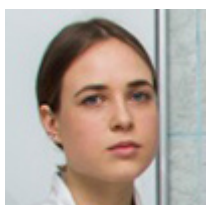
Scholars from Siberian Federal University, Krasnoyarsk Research Centre (SB RAS), the National Medical Research Centre of Haematology have presented an acute leukaemia diagnosis kit for detecting up to 18 mutations in a hematoblast. The kit proved to be a success, and so the research team received a state order from the Ministry of Healthcare of the Russian Federation to develop the technology and conduct clinical trials among patients from different regions of Russia.



The scholars conducted the pilot study within Umnik (lit.: Know-all) contest held by the Innovation Promotion Fund, represented by Krasnoyarsk Regional Innovation and Technology Business Incubator (KRITBI).

In 2017, Ksenia Tabakova, a student of Siberian Federal University, took first place at the competition. Four years later, the project advanced as the research team managed to improve the set of reagents and significantly expand the number of genetic disorders they are able to detect and typical for acute leukaemia.

Today, regional clinical hospitals successfully apply this diagnostic method in cancer patients, both adults and children. Every patient with suspected leukaemia is subjected to a free-of-charge high-tech test at the first step of diagnosis.



*"By means of prompt test, a haematologist gets a complete assessment of the genetic portrait of the tumour cell. So, there is no need to send samples to federal centres and wait for the results. A doctor can promptly diagnose the disease and urgently prescribe treatment. For a patient with acute leukaemia, this is of paramount importance, because for effective treatment of blood cancer, it is critical to timely detect the disease,"* said **Ksenia Tabakova**,

master's degree student at the School of Fundamental Biology and Biotechnology, SibFU.

We emphasize that the project is relevant for many regions where there are still no opportunities to carry out molecular genetic studies of oncogenic mutations. Currently, SibFU students Elizaveta Plechko and Ekaterina Tkachenko work on DBS cards for the study of dry blood spots of a patient. Further development of the project will enable patients to do without visiting a treatment room as they may simply apply their blood sample directly to the card and then send it by mail to a medical laboratory.

*"Umnik contest is a perfect take-off for any researcher to get their first funding. The fact that the student work could grow into a large-scale project relevant for the whole county shows that the region has all the resources for starting and implementing R&D projects,"* notes **Sergey Basisty**, KRITBI CEO.

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