

Scientists of SibFU proposed to use Siberian plants for treatment of serious diseases

Scientists of Siberian Federal University found possible sources of medicinal and antimicrobial drugs. The results of the study of unique medicinal properties of the microorganisms living within the plant — endosymbionts, are published in the scientific journal *Frontiers of Biology*. The news of the discovery was published by the scientific portal [TASS](#).



According to **Svetlana Prudnikova**, a professor of the basic biotechnology department of SibFU, one of the authors of the research, these properties can be used to create new drugs for treatment of serious diseases.



"Plants are closely related to microorganisms — this influence is mutual. Microorganisms play a big role in the life of plants, and plants in turn have an effect on microbes. As a result, not only the plants themselves have medicinal properties, but the microorganisms that inhabit them too. The substances released by them can be used as sources of antimicrobial agents for the treatment, for example, of resistant strains of diseases," — she said.

According to Svetlana, the peculiarities of the interaction of Siberian plants and microorganisms inhabiting them have not been studied scientifically. At the same time, such studies are actively carried out, for example, in such countries as India and China, traditionally famous for their medicinal herbs.

Scientists from SibFU became the first to study Siberian plants, which are actively used to treat various diseases. Specialists of SibFU collected samples of plants to study the properties of microorganisms inhabiting them in the green zone near the city of Krasnoyarsk.

*"Endosymbionts are typical microorganisms, many have the same species, genera, the same representatives of the genus *Bacillus*. For example, we found that the foalfoot has a number of new species of bacilli that were recently identified by other scientists. They show good antimicrobial properties," — **Svetlana Prudnikova** said, adding that in the future these microorganisms can be used in the production of drugs for the treatment of infectious diseases.*

In addition to medicine, according to the representative of SibFU, the study of endosymbionts is important for the development of agriculture. For example, if you understand the mechanism of production of active substances by symbionts, in the future it can lead to the development of drugs to stimulate the growth of plants or to protect them from various diseases.

The SibFU Professor Tatyana Volova and the postdoc of SibFU Sayed Baker (India) are the authors of the publication too.

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