

Natural substance studied for future treatment of possibly incurable childhood cancer

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In a recent doctoral thesis submitted at Karlstad University, Christina Fjæraa Alfredsson shows how the substance ellagic acid found in red berries and nuts, for instance, can stop cell division in cultivated cells from the childhood cancer neuroblastoma and induce cell death.

In their laboratory experiments Christina Fjæraa Alfredsson and her colleagues have studied how ellagic [acid](#) affects the growth and survival of cultivated [neuroblastoma cells](#). An important discovery was that adding ellagic acid resulted in a so-called programmed [cell death](#).

"The number of tumour [cells](#) in our model system was drastically reduced after the addition of ellagic acid. The effect was dose dependent, so at the rate of reduced cell growth and cell adhesion, and thus less potential for growth, the number of cell deaths increased considerably," says Christina Fjæraa Alfredsson.

Research on cancer treatment

The results are expected to form the basis for further research on ellagic acid and the possibility to use the substance in the future as a complement to current treatments of neuroblastoma and other forms of cancer.

"Many years of research remain before we know if ellagic acid can be

used clinically," says Christina Fjæraa Alfredsson.

Strong antioxidant for use in future medicinal products

Ellagic acid is a naturally occurring substance and belongs to the group of phytochemicals, which are substances that can be extracted from plants. Pomegranates, raspberries, strawberries, and walnuts are rich in ellagic acid. Ellagic acid and similar substances are mostly known as strong antioxidants and therefore potentially effective against various diseases, but today researchers are also interested in how ellagic acid can be used in future medicinal products for treating cancer, for example.

The third most common childhood cancer disease

Neuroblastoma is the third most common [childhood cancer](#) type in children under the age of one. Aggressive neuroblastoma is a difficult cancer type to treat, and in spite of intensive research, the death rate for this type of neuroblastoma is still very high compared with other cancer types. It is therefore crucial to develop complementary alternatives to the current methods of treatment.

Provided by Expertsvar

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