

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
КАФЕДРА ІНОЗЕМНИХ МОВ
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР

МАТЕРІАЛИ ІХ МІЖВУЗІВСЬКОЇ
НАУКОВО-ПРАКТИЧНОЇ КОНФЕРЕНЦІЇ
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ
КАФЕДРИ ІНОЗЕМНИХ МОВ

“TO MAKE THE WORLD SMARTER AND SAFER”

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The ninth scientific practical student`s, postgraduate`s and teacher`s
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CANCER TREATING NANOTHREAD

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The problem of cancer has become very relevant. Unfortunately this disease affects many people of all nationalities, genders, and ages. Scientists of different countries are looking for a universal medicine and treatment methods of this disease.

The word *nano* frequently appears in the headlines reporting another scientific bombshell. Japanese National Institute for Materials Science has invented an innovative cancer treatment technology. They created the so-called "grid", a unique thread made of nanofibers 500 nm thick. Placing this thread on the surface of malignant tumours with the help of a special drug it completely destroys cancer cells. The effectiveness of chemotherapy has increased by 7%.

This thread should be placed in a special capsule. The drug is sutured into the body close to the expected tumor. The capsule is good dissolving. The nanothread which defines pathological cells comes from the capsule. The nanothread is put on the cancer tissue and covers it. It starts the work with destroying the cancer cell structure. It is of high importance that nanothread does not induce immune response, since it is placed in a capsule with the pre-human (patient's) leukocytes T-helper cells.

Now the scientists work on creating nanothread frameworks to induce regeneration of bones and cartilages due to built-in vitamin D and stem cells due to built-in vitamin A.

The new method promises to improve the delivery of the medicine directly to the target tissue when treating cancer, cardiovascular diseases, Alzheimer's disease, regenerating tissues, bones and cartilages. Moreover this innovative technology finds its application not only in medicine, but in microprocessor industry when creating thin and high-performance microprocessors for computers and other electronics.