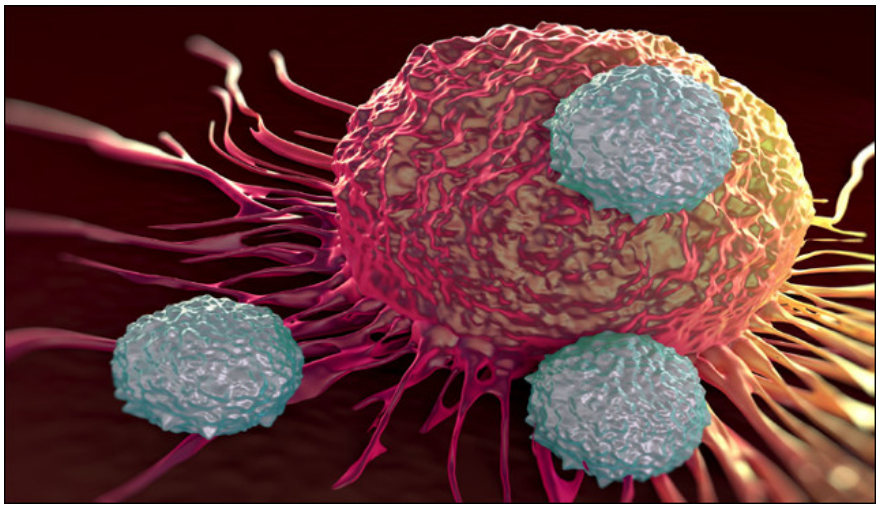
Dealing with cancer can become easier with self-correcting nanoparticles

In a groundbreaking study, London scientists have invented smart nanoparticles that have high warming potential to kill cancer cells.

In a groundbreaking study, London scientists invented "smart" nanoparticles that have a high enough heating potential to kill cancer cells.

These particles can adjust the temperature and cool themselves before any effect on healthy tissues.

These smart nanoparticles may soon be used as part of hyperthermic tropical therapy to treat cancer patients.



Heat therapy has long been used as a cancer treatment but it is difficult to treat patients without harming other healthy cells.

However, tumor cells can be weakened or destroyed without affecting normal tissue if the temperature can be precisely controlled within the range of 42 ° C to 45 ° C.

The new "Zn-Co-Cr ferit" nanoparticles were self-corrected, meaning that they stopped warming themselves when reaching temperatures above 45 degrees Celsius, the researchers noted this finding in a journal article. Nanoscale.

"If we can maintain cancer treatment at temperatures high enough to kill cancer, while low enough to prevent healthy tissue protection, it will prevent some of the serious side effects in at treatment ". - Ravi Silva, Professor at Surrey University, he said in a statement.

More importantly, nanoparticles are also of low toxicity and do not cause permanent damage to the body.