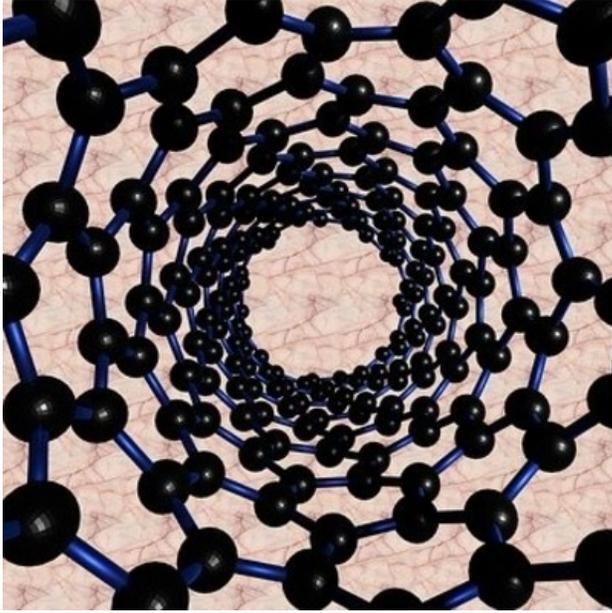


A Nano-Solution For Breast Cancer?

Printed from <https://www.cancerquest.org/newsroom/2020/10/nano-solution-breast-cancer> on 05/27/2026



A team of researchers from Duke University, Case Western Reserve Medical School, and the Cleveland clinic lead by Efstathios Karathanasis, an associate professor of biomedical engineering, have developed a new treatment for breast cancer that combines immunotherapy (using one's immune system to fight disease) and nanotechnology. The technique, which is currently being tested in mice, works by injecting tiny (nano) particles to locate tumors. These nanoparticles activate immune cells within the tumor.

Metastatic breast cancer is difficult to detect because the tumors often cannot be detected until the cancer is very advanced. The tumors remain quiet, laying still or growing slowly, until they finally emerge. Unfortunately, doctors have not had the best success treating this type of breast cancer with immunotherapy because tumor does not alert the immune system that there is any danger. The new technique avoids this problem. The nanotechnology shows great promise, because is able to locate dormant tumors and activate the immune system.

Source

<https://thedaily.case.edu/fighting-breast-cancer-with-nanotech-immunotherapy/>

Learn More

[Learn More About Cancer Immunotherapy](#)