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Microchip Provides One-Hour Tumor Diagnosis at Patient's Bedside

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Photo Courtesy - Getty Images

(BOSTON) - Facebook Twitter hows that a microchip developed I be plugged into smartphones and provide an accurate diagnosis of cancerous tumors within an hour, according to the journal *Science Translational Medicine*.

The microNMR chip requires only small amounts of the patient's tissue and measures proteins and other chemical compounds in tumors using magnetic nanoparticles to make the diagnosis.

Researchers in the study were pleased to find that the less-invasive chip detection proved to be both fast and accurate.

"It was a nice surprise just how well it worked with all the protein markers. One of our big goals was not only to be able to tell patients they have cancer as accurately as possible, but as quickly as possible," said study co-author Jered B. Haun, a postdoctoral researcher at Massachusetts General Hospital in Boston.

Researchers say that, in contrast, the standard methods for pathology typically take up to three or more days to produce a diagnosis with only 84-percent accuracy.

Haun expects that the chip will also be inexpensive to produce.

"Like cell phones in general, the more you make the cheaper they get," he said. "It's not an expensive device at all."

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