

"Sticky" nanochip allows for better measure of metastatic activity.

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The majority of cancer-related deaths are caused by metastasis, a process in which cancer cells leave the primary tumor site and grow in other parts of the body. The bloodstream functions like a highway for many metastases, and physicians face the difficult task of monitoring the spread of the cancer cells. A recent article published in *Angewandte Chemie* reveals an exciting new tool for trapping and measuring these circulating tumor cells (CTC). A silicon chip is covered with nanoparticles that interact with small projections (microvilli) on the surface of CTCs. The interactions cause the two to stick together, trapping the CTCs. The technique allows physicians to obtain a "liquid biopsy." The chip also contains microfluidic channels, which increases the interaction with the blood and thus the effectiveness of this diagnostic procedure. This development offers the potential for better diagnoses and thus a more informed approach to cancer treatment.

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