



Nanoengineered Surfaces For Cancer Biomarker Capture

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The Invention

Described herein is cancer biomarker, e.g., a vesicle, capture surface that includes a substrate, a first plurality of nanoparticles attached to the substrate; a plurality of bifunctional tethers, wherein a first functionality of the bifunctional tethers is attached to at least a portion of the first plurality of nanoparticles; a second plurality of nanoparticles attached to a second functionality of at least a portion of the plurality of bifunctional tethers; a capture agent attached to at least a portion of the second plurality of nanoparticles; and a plurality of polymer brush molecules attached to the surface, wherein the polymer brush molecules have a lower molecular weight than the bifunctional tethers, and wherein the polymer brush molecules reduce nonspecific binding to the surface. Also described are method of capturing cancer biomarkers such as vesicles from a liquid biopsy sample.

Additional Information

For More Information About the Inventors

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Tech Fields

- [Diagnostics & Biomarkers : Biomarkers](#)
- [Therapeutics & Vaccines : Oncology](#)

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847