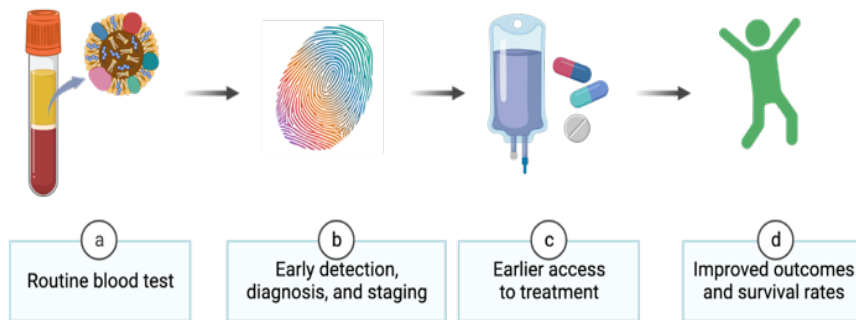


New method for cancer diagnosis

Fingerprinting Cancer and Beyond



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Cancer diagnosis, cancer progression, lipoprotein nanoparticles

Intellectual Property

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Description

Cancer diagnosis has been a longstanding challenge in the field of medicine, often relying on invasive procedures and complex testing methods. These approaches are costly, time-consuming, and suffer from limitations related to false negatives and to need for advanced facilities.

Here we present a novel method for cancer diagnosis through the analysis of cholesterol-rich lipoprotein nanoparticles in a patient's blood sample. By examining the size distribution or fractogram of these nanoparticles, comparisons can be made with those from healthy subjects or predetermined standard distributions. Deviations in size distribution indicate the presence of cancer, offering a reliable, non-invasive diagnostic tool.

Advantages

- **Non-Invasive:** The method only requires a blood sample, making it less stressful for patients and reducing the risk of complications.
- **High Sensitivity:** The technology offers exceptional sensitivity, capable of detecting cancer at an early stage when treatment is most effective.

- **Speed and Efficiency:** The analysis is performed quickly, enabling rapid diagnosis and timely intervention.

- **Accuracy:** The method provides highly accurate results, minimizing the risk of false positives and negatives.

- **Multiple Cancer Types:** By comparing the size distribution to predetermined standards, the technology can identify the specific type of cancer present in the patient.

- **Early Detection:** The technology can identify cancer at an early stage, offering a higher likelihood of successful treatment and improved patient outcomes.

- **Disease Progression Monitoring:** The technology enables precise monitoring of cancer progression, allowing for personalized treatment plans and timely interventions.

- **Prognosis:** The method allows for the prognosis of a treatment efficacy.

Applications

- Early cancer diagnosis
- Prognosis of treatment efficacy
- Disease progression monitoring