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Korea announces groundbreaking AI-based liquid biopsy technology for multi-cancer early detection

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To lay the groundwork for accurate cell free DNA-based cancer diagnosis at early stages



South Korea-based GC Genome Corporation has announced the publication of a new study in *Nature Communications*, showcasing the company's novel artificial intelligence (AI)-based liquid biopsy technology.

The study highlights the unprecedented accuracy of the technology for cancer early detection and tissue-of-origin localisation utilising advanced AI algorithms to analyse mutation density and patterns of cell-free DNA (cfDNA) and epigenomes in collaboration with the Korea Advanced Institute of Science and Technology (KAIST).

de novo detection of cancer, especially at early stages, remains challenging and the solution for this urgent need is being actively pursued by using cfDNA-based noninvasive cancer screening for Multi-Cancer Early Detection (MCED) and localisation of cancer.

Noninvasive screening by cfDNA holds great promise for multi-cancer early detection. The technology has demonstrated promising results in detecting multiple types of cancer at an early stage. The technology has shown exceptional sensitivity, achieving a 91.1% performance rate based on a 95% specificity and a high level of accuracy, with an 81.7% success rate in predicting both the presence and type of cancer.