

AI-powered, vertically-integrated IVD certified technology for accurate fast & affordable diagnosis of genetic disorders & beyond

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Background: With the right method, genetic predisposition to hereditary cancer could be detected early and thus prevent the manifestation. Life Sciences have made great progress by adding DNA sequencing technologies to discover hereditary predispositions for cancer. However, these techniques are rather costly and time-consuming. This together with the lack of trained personnel and difficulty of interpreting variants of uncertain significance are the main reasons why they are not in wide use.

Methods & Results: We have developed an AI-powered, vertically-integrated IVD certified technology for accurate, real time & affordable diagnosis of genetic disorders including point mutations related to cancer. Moreover, our technology is automated, reducing the experimental errors & costs. This improves accessibility and has a potential to revolutionise genetic analysis. In this poster we will describe how we managed to correctly identify mutations at genes SMN1, SMN2 and CFTR. We will also describe our experimentation with cfDNA, a useful biomarker for a multitude of diseases, including cancer.

Conclusion: There is an opportunity to substitute prevailing screening tools with our technology helping the early detection of genetic disorders, including cancer.