Pfizer and Thermo Fisher Scientific increase access to advanced genomic testing

Next-generation sequencing has not been accessible to breast and lung-cancer patients requiring precision healthcare, that is until now.

Source: Pixabay

Due to an agreement signed between Pfizer and Thermo Fisher Scientific, lung- and breast-cancer patients in more than 30 countries across Latin America, Africa, the Middle East and Asia will have first-hand access to advanced genomic testing, which provides faster analysis of genes associated, and empowers healthcare providers to select the right therapy for that individual patient.

Cancer is a leading cause of death globally, accounting for nearly 10 million deaths in 2020, or around one in six deaths. Breast and lung cancer are the leading types of cancer diagnosed and are responsible for almost 4.5 million deaths worldwide.

In South Africa, it is forecast that the incidences of cancer will almost double by 2030, from 62,000 in 2019 to 121,000 cases. This prediction confirms that cancer is a growing public health problem in South Africa and highlights the need for increases in resources available for cancer services and the urgent implementation of cancer-prevention strategies to reduce the number of future cancer cases, and thereby reduce the burden on the health system.

By 2040, the global burden for cancer is expected to grow to 27.5 million new cancer cases and 16.3 million cancer deaths.

Equipping labs with infrastructure and staff

Under the agreement, Thermo Fisher will identify local labs that will be using the company's NGS technology and ensure they have the necessary infrastructure, trained staff, and quality-control measures to meet industry standards for NGS testing services for breast and lung cancer.

Pfizer will explore ways to enable affordable patient access for NGS testing for these types of cancer and work to raise healthcare-provider awareness regarding the benefits of advanced testing. The two companies will continue to evaluate opportunities to expand geographically and to expand testing for other types of cancer.

“Anyone facing a cancer diagnosis should have access to cutting-edge testing that can match them with an appropriate, optimised treatment plan and better inform their care. Today, we aim to bring rapid NGS testing to an increased number of decentralised labs, closer to where patients are treated,” said Gianluca Pettiti, executive vice president at Thermo Fisher Scientific.

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“We are moving one step closer to delivering precision insights to underserved patients so they can receive a more tailored path for their care no matter where they are in the world.

Better treatment journeys

“The more we understand the complex science behind cancer, the better we can treat it. Our experience has taught us that cancer cannot always be treated with a broad brush and often requires an individualised approach based on precise disease characteristics,” said Nick Lagunowich, Pfizer global president of emerging markets.

“In many parts of the world, access to next-generation sequencing may be limited or unaffordable for cancer patients. This programme aims to improve their treatment journey and help increase their chances for improved outcomes.”

Single gene testing has historically been used to match patients with appropriate targeted therapies. However, this can be a time-intensive process if sequential tests are needed and there may not be enough tissue to run every test – which may require additional biopsy procedures.

As more targeted therapies are available that can be matched through a broader set of genomic markers, next-generation sequencing is quickly replacing sequential, single biomarker tests. By screening a single tumor tissue or blood sample for multiple biomarkers simultaneously, NGS can provide clinical teams with rapid and actionable genomic insights to help inform precision oncology treatment decisions for eligible patients.

A retrospective observational real-world data study looked at newly diagnosed stage IV non-small cell lung cancer patients, and found outcomes such as apparent survival and time to next treatment were significantly compromised if actionable mutations were identified after systemic treatment was initiated, such as chemotherapy and immunotherapy.

However, when treatment was initiated based on molecular results, patients experienced better outcomes compared to patients who were treated prior to receiving molecular results, supporting the need for rapid molecular testing to inform better treatment decisions.