

Vela Diagnostics, NCCS to refine novel cancer therapy in Singapore

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Aims to refine the therapeutic management of cancer to improve clinical outcomes



Vela Diagnostics has announced a collaboration with the National Cancer Centre of Singapore (NCCS) to develop a molecular diagnostic assay to predict individual patients' responses to a cancer therapy called Epidermal Growth Factor Receptor (EGFR) tyrosine kinase inhibitors (TKIs).

Being able to predict an individual's response will help clinicians determine if EGFR-TKIs are a suitable therapeutic option for the patient.

The partnership between Vela Diagnostics and NCCS aims to refine the therapeutic management of cancer to improve clinical outcomes.

EGFR is an oncogene with potential to cause cancer. Non-small cell lung cancer (NSCLC) has specific mutations in EGFR which makes them susceptible to treatment with EGFR-TKIs.

However, these mutations are uncommon in other cancers so there are no established biomarkers for predicting a patient's response to these drugs in cancers arising in the head, neck and oesophagus.

A study published in *Nature Medicine* in 2017, led by NCCS' Professor Gopal Iyer and Associate Professor Daniel Tan, reported how a silent single-nucleotide polymorphism (SNP) in EGFR confers sensitivity to EGFR-TKIs in patients with head and neck cancers.

The discovery has provided new avenues to identify previously unknown biomarkers of existing targeted therapies, with considerable potential for immediate repurposing and clinical impact.

The next phase of the collaboration will evaluate the efficacy of the assay through a clinical trial to test the response of patients to EGFR-TKIs. These will include patients with head and neck cancers based on the original discovery, and also other similar types of cancers arising from the lung, oesophagus, bladder and cervix.