BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Engine Biosciences and Experimental Drug Development Centre partner to advance cancer therapies

08 April 2025 | News

The partnership will advance the development of first-in-class precision therapeutics for multiple cancer types that are highly prevalent in Singapore and globally, including breast, liver, kidney and prostate cancers.

Engine Biosciences (Engine), a Singapore- and Silicon Valley-based biotechnology company pioneering precision medicine for cancer, announced a new partnership with the Experimental Drug Development Centre (EDDC), Singapore's national platform for drug discovery and development hosted by the Agency for Science, Technology and Research (A*STAR).

This first-of-its-kind collaboration unites Engine's NetMAPPR platform and proprietary oncology intellectual property with EDDC's drug discovery and development expertise to create first-in-class precision cancer treatments.

The first project under this partnership focuses on ENB-871, a novel pairing of a drug target and patient selection biomarkers discovered through Engine's NetMAPPR platform. This platform combines AI, computation, biology, and chemistry to identify, validate, and prioritise drug targets with strong clinical and commercial potential, driving the development of new therapies that exploit specific vulnerabilities in tumours.

This program shows significant promise for treating tumours with particular genetic mutations that predict sensitivity to the ENB-871 targeted therapy, including breast, liver, kidney and prostate cancers – diseases afflicting large and growing patient populations in Singapore and worldwide. In total, the potential addressable population exceeds 500,000 patients per year.

The teams will collaborate to develop small molecule degraders targeting ENB-871, including demonstration of *in vivo* efficacy. By bringing together Engine's proprietary technology and deep translational insights with EDDC's strengths in designing and developing therapies, this partnership aims to create targeted cancer treatments tailored to patients' specific profiles, improving treatment effectiveness and outcomes. Engine and EDDC may also identify additional drug targets and research programs for collaboration during the partnership.

"We're excited by the synergies created by bringing together our two platforms, leveraging first-in-class Singapore research

and innovation to advance transformative cancer therapies. This marks another key step in Engine's mission to develop more effective, targeted and safer drugs for cancer patients." said Jeffrey Lu, CEO and Co-Founder of Engine Biosciences.

"The future of drug development lies in precision-driven innovation. Our partnership with Engine enables us to develop therapies tailored to specific patient populations through Engine's biomarker-driven patient selection approaches. We are particularly excited to launch our first collaborative project around monovalent small molecule degraders, building on EDDC's expanding capabilities in this field. Beyond this, we look forward to strengthening our partnership by advancing more precision therapies that have the potential to transform the lives of cancer patients in need," shared Damian O'Connell, CEO of EDDC