Engine Biosciences Secures $27 Million Series A Extension to Advance Development of Precision Oncology Medicines and Novel Biomarkers for Patient Selection

Backed by existing and new domain expert investors, extension brings Series A total to $70 Million, and total funds raised to date to $86 Million

Funds to support translation of R&D programs derived from proprietary NetMAPPR machine learning network biology platform and CombiGEM combinatorial genetics system into clinical settings

SINGAPORE & REDWOOD CITY, CA – October 31, 2023 – (BUSINESS WIRE)–Engine Biosciences ("Engine") , a company leveraging machine learning and high-throughput biology to discover and develop precision oncology medicines, today announced the completion of a $27 million Series A extension. The financing was led by Polaris Partners, with participation from both new and existing investors, bringing the total funds raised since inception to $86 million. Additional participating investors include existing investors ClavystBio (a life sciences venture investor set up by Temasek), Invus, and Singapore-based global investor EDBI, as well as new investors Coronet Ventures (a Singapore-based investment entity of Cedars Sinai Intellectual Property Company) and SEEDS Capital (investment arm of Enterprise Singapore). In conjunction with the financing, Wen Qi Ho Ph.D., Therapeutics Lead at ClavystBio, joined Engine's Board of Directors.

Engine's precision medicine R&D platform deciphers biological networks and pinpoints key genetic interactions driving diseases, overcoming challenges presented by biological complexity. These insights reveal targets and therapeutics to be used in biomarker-defined patient populations, allowing for more rapid identification of effective precision medicines. In oncology, Engine leverages the validated principle of synthetic lethality and is focused on the clinical translation of therapeutics and biomarkers across solid tumors, including ovarian, colorectal, liver, lung and prostate cancers.

"Our findings support Engine's mission to deliver clinical impact through directing the right drug for the right target to the right patient," said Jeffrey Lu, Engine Biosciences' Co-Founder and CEO. "We appreciate the confidence of both existing and new investors demonstrated through this financing, as we continue steadfast in our goals to drive clinical translation of our insights, internally and with partners."

Engine has revealed over thirty previously unidentified precision medicine opportunities with validation data, anchoring its pipeline and feeding partnerships. Its internal drug discovery biology and chemistry teams have progressed multiple programs significantly from initial identification. Among its oncology pipeline is ENB-812 which Engine has overseen from independently discovering PKMYT1 as a synthetic lethal target with novel biomarkers in 2019, generating robust preclinical proof-of-concept across many tumor types and animal models, observing supportive clinical data, and advancing lead identification and optimization.

In addition to high-value targets and drug candidates, Engine identified new patient selection biomarkers for several distinct classes of targeted therapies. Engine's biomarkers have been validated to

sensitize tumors by 100 times to specific clinical-stage investigational drugs. These biomarkers present near-term potential to enhance clinical outcomes, increase commercial potential, and improve drug development economics.

“We have witnessed first-hand Engine’s considerable progress since our initial investment, advancing its technologies towards compelling precision medicines positioned for translation,” said Amy Schulman, Managing Partner of Polaris Partners. “We are excited to lead this strong investor syndicate in support of Engine’s pursuit of clinical value creation through development of its therapeutics and biomarkers and partnerships.”

Benefiting from several years of research and development in its Singapore and Silicon Valley sites and foundational science from MIT, UCSF, UCSD, and Mayo Clinic, Engine’s proprietary platforms, NetMAPPR (machine learning-enabled network biology) and CombiGEM (combinatorial genetics experimentation), are engineered for drug hunters and clinical developers to discover and optimize precision medicines. In addition to high-value targets with associated biomarker-defined patient populations, Engine’s extensive biology knowledge and datasets provide insights on desirable target product profile characteristics, guiding design and optimization of first-in-class and best-in-class therapeutics.

“We are excited about supporting Engine’s growth as a global biotech company, with a strong syndicate of life sciences investors,” said Wen Qi Ho, Ph.D., Therapeutics Lead, ClavystBio. “This is consistent with our mission to translate breakthrough research into clinical impact, and build ventures in Singapore with access to talent, data and clinical opportunities internationally.”

Engine’s programs and platform are underpinned by an extensive patent portfolio. With the additional funds secured, Engine will further advance its biomarker and target discoveries toward the clinic through internal development, collaborations, and partnerships.

“Precision medicine holds the key to the next wave of groundbreaking treatments, a belief that ties Coronet Ventures closely with Engine’s mission,” said Nirdesh Gupta, Ph.D., CEO of Coronet Ventures. “Investing in Engine Biosciences reflects our commitments to bringing research breakthroughs to clinical fruition, and anchoring ventures in Singapore that are primed for global success.”

About NetMAPPR and CombiGEM

NetMAPPR, Engine’s biology search platform, maps biological networks and reveals critical genetic and molecular interactions integral to diseases. Over the past six years, NetMAPPR has been rigorously engineered and trained by machine learning and internal experimentation feedback loops, together with the largest-known oncology gene interaction and synthetic lethality knowledge base. Engine’s databases comprise of proprietary functional genomics data generated in-house, clinical data including through extensive relationships with hospitals, and AI-enhanced literature mining. Engine’s CombiGEM combinatorial CRISPR platform delivers masses of purpose-built experimental data to enhance NetMAPPR and validate findings for drug development. Together, these technologies inform Engine’s growing pipeline of potential high-impact therapeutics, targets, and patient selection biomarkers to support drug development and partners in oncology and additional disease areas.

About Engine Biosciences

Engine Biosciences is a venture-backed Singapore and Silicon Valley based company discovering and developing impactful precision medicines by deciphering complex biology with integrated computation and experimentation, with particular depth in oncology gained over several years of substantial

investment and focus. Having pinpointed many promising drug targets and predictive biomarkers for patients most likely to benefit, Engine is advancing its pipeline of oncology therapeutics towards the clinic internally and with collaborators, and in other disease areas through partnerships. Engine's team is motivated by opportunities to address significant unmet needs with more selective and effective precision medicines. For more information, please visit www.enginebio.com, and follow Engine on LinkedIn.

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