

CAR-T EXOSOME AND EXO-ACE DATA PUBLISHED IN PEER REVIEWED JOURNAL

- INOVIQ's proprietary EXO-ACE platform for scalable CAR-exosome production platform published in Journal of Visualized Experiments (JoVE)
- EGFR- and HER2-targeted CAR-T-exosomes demonstrated potent *in-vitro* cancer-killing activity in breast and myeloid leukemia cell lines
- EXO-ACE validated for large-scale production of CAR-EVs, supporting preclinical development

INOVIQ Limited (ASX: IIQ) ("INOVIQ" or "the Company") is pleased to announce the publication of proof-of-concept (PoC) data demonstrating the *in vitro* cancer-killing efficacy of its engineered CAR-T-exosomes and the scalability of its proprietary EXO-ACE manufacturing platform. The peer-reviewed scientific paper, titled "*Enhancing Chimeric Antigen Receptor-Extracellular Vesicles (CAR-EV) Technology: The Future of Cancer Therapy*", has been published in the **Journal of Visualized Experiments (JoVE)**; link [here](#)) and an Abstract is provided in the Appendix.

The paper reports data from a previous study (ASX: 3 June 2024)¹ that INOVIQ's CAR-T exosomes exhibit strong cytotoxic activity against breast and blood cancer cell lines. It also validates the EXO-ACE platform as a scalable, automated system for high-throughput production and analysis of CAR exosomes. EXO-ACE has been successfully applied to both CAR-NK and CAR-T exosomes across haematological and solid tumour models, demonstrating its versatility and readiness for therapeutic development.

CSO Prof Greg Rice said: "*This publication validates the scientific rigour and therapeutic potential of our CAR-exosome platform across both haematological and solid tumours. Our proprietary EXO-ACE manufacturing process enables scalable production of engineered exosomes with potential safety, efficacy and cost advantages over autologous cell therapies.*"

CEO Dr Leearne Hinch stated: "*Our CAR-exosome therapies have the potential to transform cancer treatment with a cell-free approach to target and destroy solid tumours. We expect to report in vivo efficacy data for our CAR-NK-exosomes in a triple-negative breast cancer animal model by December 2025.*"

Authorised for release by Company Secretary, Mark Edwards.

FURTHER INFORMATION

Dr Leearne Hinch
Chief Executive Officer
E lhinch@inoviq.com
M +61 400 414 416

David Williams
Chairman
E dwilliams@kidder.com.au
M +61 414 383 593

ABOUT INOVIQ LTD

INOVIQ Ltd (ASX: IIQ) is a leader in exosome technology advancing next-generation diagnostics and therapeutics that transform cancer care. Our product portfolio includes commercial-stage exosome isolation products, clinical-stage diagnostics for ovarian and breast cancers, and a cutting-edge preclinical CAR-exosome therapeutic program for solid tumours. INOVIQ is shaping the future of cancer detection and treatment to improve patient outcomes. For more information on INOVIQ, visit www.inoviq.com.

ABSTRACT

**Enhancing Chimeric Antigen Receptor-Extracellular Vesicles (CAR-EV) Technology:
The Future of Cancer Therapy¹**

CAR cell therapies have significantly advanced personalized treatment for several hematological malignancies. Currently, seven CAR- cell products are approved by the Food and Drug Administration (FDA) and six by the European Medicines Agency (EMA) for treating lymphoma, multiple myeloma, and chronic lymphocytic leukemia. Several challenges and limitations remain, with cytokine release syndrome (CRS) and immune effector cell-associated neurotoxicity syndrome (ICANS) being the most significant. Cell-free therapies, such as CAR-EVs, offer substantive advantages over their cellular counterparts. These include enhanced tumor infiltration and the potential for repeat administration while minimizing the risks of CRS, ICANS, and other adverse side effects. Additionally, the potency of CAR-EVs can be tuned by engineering the inclusion of cytotoxic agents and function-modifying ribonucleic acids (RNAs). Herein, we report on the development of a scalable CAR-EV platform for producing tunable CAR-EVs. This platform includes the engineering and preconditioning of EV producer cells (e.g., CAR-T and CAR-natural killer (CAR-NK) cells), isolation and enrichment of CAR-EVs using a Good Manufacturing Practice (GMP) grade ion-exchange chromatography (IEX) platform, fully automated high-throughput EV subpopulation analysis, and in vitro evaluation of CAR-EV functional cytotoxic activity. The platform has been validated using CAR-NK-EVs and CAR-T-EVs for both hematological and solid tumor cell lines. The CAR-EV platform represents a promising approach for the rapid development of off-the-shelf therapeutic CAR-EVs tailored to specific disease indications, with the potential to reduce adverse side effects associated with CAR-cell-based therapies.

¹ Study results were previously reported as a poster presentation at the International Society for Stem Cell Research, 2-4 October 2024 entitled “**CAR-Extracellular Vesicles: A Promising alternative to cell-based therapies**”. This publication reports the detailed data presented and methods in the poster presentation and also the ASX announcement on [3 June 2024](#).