

AROVELLA OPTIONS CYTOKINE TECHNOLOGY TO ENHANCE INKT CELL PLATFORM

- Arovella has obtained an exclusive Option to license a cytokine technology to make iNKT cells persist longer and grow in higher numbers, potentially supercharging the performance of Arovella's iNKT cell platform in blood cancers and solid tumours.
- The Option to License a cytokine technology for iNKT cells is from the University of North Carolina Lineberger Comprehensive Cancer Center.
- This cytokine technology can potentially make an even more potent combination between Arovella's iNKT cell platform and Imugene's onCARlytics platform.
- The inventor of the platform is a leading authority on invariant Natural Killer T (iNKT) cell biology, pioneering CAR-iNKT cell products.

MELBOURNE, AUSTRALIA 20 December 2022: Arovella Therapeutics Ltd (ASX: ALA), a biotechnology company focused on developing its invariant Natural Killer T (iNKT) cell platform to treat cancer, is pleased to announce that it has entered into an Exclusive Option to licence a cytokine technology for iNKT cells with the University of North Carolina Lineberger Comprehensive Cancer Center.

While early-stage, this novel technology represents a significant advancement in iNKT drug development and could further differentiate Arovella's iNKT cell technology. Additionally, the Option will increase the barriers to entry for other companies developing iNKT cell therapeutics. Arovella is one of a handful of companies known to be developing therapeutics based on iNKT cells and is focused on ensuring they protect this position through option agreements and acquisitions.

The technology under this Option incorporates the production of specialised cytokines in iNKT Cells. When iNKT cells produce these cytokines, preliminary data demonstrates more prolonged persistence and higher cell numbers. The increased survival and number of iNKT cells may significantly enhance their capacity to kill solid tumour tumours.

iNKT cells play an essential role in the immune surveillance of blood cancers, and the iNKT cell's glycolipid antigens rapidly act on CD1d. This stimulation and activation produces other immunomodulatory cytokines, increasing the effectiveness of other immune effector cells, such as NK cells and T cells, to support the elimination of cancer cells from the patient.

UNC Lineberger's Professor Gianpietro Dotti, who pioneered the generation of CAR-iNKT cells with Dr Leonid Metelitsa, and is a leading authority on iNKT cell biology, said, "Developing the first CAR-iNKT cell products, we have an enormous amount of experience working with CAR-iNKT cells. By re-engineering iNKT cells to produce this cytokine, preliminary data demonstrates profound effects on the cells, and we believe this could be transformational when using iNKT cells to treat solid tumours."

Professor Dotti pioneered the Initial work focused on using secreted IL-15 from CAR-iNKT cells. This proved effective and has been tested in clinical trials with promising results. To date, the cytokine that is the focus of the Option Agreement has not been combined with iNKT cells, and the preliminary data from Professor Dotti's research group at the University of North Carolina demonstrates that it causes iNKT cells to persist for longer and have profound effects against solid tumours, such as neuroblastoma.



Patents surrounding the technology have been filed, and the data from animal trials are being generated, which will determine if Arovella enters into a license agreement. The investment in the Option is not a material amount and the Option term is 15 months.

Arovella's CEO and MD, Dr Michael Baker, commented: "This is another important step forward for Arovella. From a business perspective, we intend to create a larger technology gap between ourselves and competitors in the oncology drug development market. The Option agreement also future-proofs our iNKT platform by working with UNC Lineberger and Professor Gianpietro Dotti. This new relationship increases our potential to develop a best-in-class therapeutic for solid tumour cancers. I look forward to seeing the outcome of this novel technology when tested in conjunction with Imugene's onCARlytics platform."

Release authorised by the Managing Director and Chief Executive Officer of Arovella Therapeutics.

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NOTES TO EDITORS:

About Arovella Therapeutics Ltd

Arovella Therapeutics Ltd (ASX: ALA) is a biotechnology company focused on developing therapies to treat human diseases. Arovella is developing its invariant natural killer T (iNKT) cell therapy platform from Imperial College London to treat blood cancers and solid tumours. Arovella is also expanding its DKK1-peptide targeting technology licenced from MD Anderson and used in conjunction with its iNKT cell therapy platform. The Company is also commercialising ZolpiMist[™], a first-in-class oral spray of zolpidem tartrate to treat shortterm insomnia. ZolpiMist is approved by the FDA and the TGA and is marketed in the USA. Arovella has rights to the product outside of the US and Canada.

For more information, visit www.arovella.com

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