

ASX Announcement Release

Melbourne, Australia, 14 November 2022

Exopharm will commence technology transfer of Exopharm's patented *LEAP*[™] exosome purification technology to the Astellas Institute for Regenerative Medicine (AIRM) under ongoing joint Master Collaborative Services Agreement (MSA)

Highlights:

- **Exopharm will enter Phase 2 of the collaboration services agreement with the Astellas Institute for Regenerative Medicine (AIRM), a subsidiary of Astellas Pharma Inc.**
- **This phase in the commercial collaboration continues use of Exopharm's technology and know-how by an external party.**
- **The work conducted in Phase 1 of the program demonstrated Exopharm's *LEAP* technology and will be followed by *LEAP* technology transfer for in-house evaluation by AIRM researchers.**

Genetic medicine and exosome-based drug-delivery company Exopharm Limited (ASX:EX1) announces that it will initiate technology transfer of its proprietary and patented Ligand-based Exosome Affinity Purification (*LEAP*[™]) platform to AIRM.

This second Phase of work will enable AIRM to further evaluate Exopharm's *LEAP* technology for the isolation of exosomes. In addition to Exopharm's *LEAP* purification technology, AIRM will be able to use two other Exopharm technologies – EVPS and LOAD. EVPS technology from Exopharm could enable AIRM to develop and evaluate surface-engineered exosomes. Exopharm's LOAD technology could enable AIRM to load functional RNA into exosomes derived from AIRM cells.

"This work has enabled Astellas and Exopharm to complete important initial laboratory work together," said Dr. Mike West, Chief Technology Officer of Exopharm. *"The collaboration with Astellas colleagues has demonstrated our technologies."*

As part of the multi-stage research collaboration, Exopharm conducted the initial stage at its research facilities in Melbourne, Australia, using its *LEAP* technology to purify exosomes derived from two proprietary AIRM cell lines.

Astellas Pharma Inc. is a top 20 global pharmaceutical company, with global sales of approximately US\$12 billion and strong investment in R&D to support the development of new treatments to address major unmet medical needs.

Exopharm has three proprietary technologies that Astellas has rights to use:

- The **LEAP** exosome purification and biomanufacturing process provides a highly scalable purification capability for exosome product manufacture.
- Extracellular Vesicle Positioning System (**EVPS**) technology enables the addition of engineered tissue-tropic moieties to exosomes. **EVPS** enables surface engineering of exosomes for targeting exosomes to specific tissues and cells.
- **LOAD** is used to encapsulate a broad array of active pharmaceutical ingredients (API) for immune-silent delivery and opens up the use of exosomes as a drug-delivery chassis to deliver a broad array of APIs, such as RNA, DNA, AAV, and CRISPR innovations.

"The adoption of exosomes as a large-scale non-viral drug-delivery chassis for Genetic Medicines relies upon practical solutions to the various manufacturing challenges. Exopharm has become a leader in exosome manufacture and analytics. Our work provides very encouraging insights and fuels the promise of exosome-encapsulated therapeutic Genetic Medicine development," Dr. West added.

"Our other recent data supports the use of exosomes as a drug-delivery technology, with very positive results from in vivo testing of toxicity and immunogenicity – results showing that our manufacturing process makes exosomes that are non-toxic and 'immune-silent' despite multiple-dosing of exosomes," added Dr. West.

"Since founding Exopharm in 2013, we have focused on solving the practical problems holding back the promise of exosome medicines. Here in 2022, we have a complete suite of key proprietary technology platforms that enable exosome medicine development and commercialisation," said Dr. Ian Dixon, Managing Director and founder of Exopharm.

"Our strategy is to accelerate the development of our lead programs in Cystic Fibrosis and Elastin deficiency while making our platform technologies available under license to leading pharmaceutical companies, such as Astellas," Dr. Dixon added. *"This combined strategy has the potential to generate non-dilutive revenue from such agreements while we advance the value of products we own,"* Dr. Dixon said.

Exopharm continues its commercial discussions with other leading pharmaceutical and biotechnology companies interested in using exosomes for their own Genetic Medicines.

Further information on LEAP, LOAD and EVPS is available on the Exopharm website www.exopharm.com

Glossary

AAV	adeno-associated virus
API	active pharmaceutical ingredient
CRISPR	Clustered Regularly Interspaced Short Palindromic Repeats, a technology for gene-editing
DNA	deoxyribonucleic acid
RNA	ribonucleic acid

By the Board - this announcement has been authorised for release by the Board.

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ABOUT EXOPHARM

Exopharm (ASX:EX1) is a leader in advancing Genetic Medicines and other exosome-based medicines using exosomes or extracellular vesicles (EVs) as a chassis for improved and non-viral drug-delivery.

Exopharm (ASX:EX1) is pursuing a product pipeline-driven platform strategy. Exosomes can be loaded with a variety of active pharmaceutical ingredients (APIs) and can be targeted to selected cell-types and tissue types, improving the safety-profile of the APIs and providing better treatments. Exosomes can be used to deliver small molecule drugs, mRNA, DNA and other types of APIs.

Exosomes are an alternative means of drug-delivery inside the body, alongside technologies such as lipid nanoparticles (LNP), cell-penetrating peptides, viral vectors and liposomes.

Exopharm's exosome technologies solve important needs for the success of exosome medicines – **LEAP** manufacturing technology, **LOAD** API loading technologies and **EVPS** tropism technologies.

Exosome-based medicines could improve the treatment of many chronic or inherited medical conditions.

Exopharm is making its proprietary technologies available to pharmaceutical and biotechnology companies that want to harness exosome-delivery for their own products.

In addition, Exopharm is using its technology platform to enable its own product development programs - each aimed at delivering a transformative medicine for an unmet medical need.

FORWARD LOOKING STATEMENTS

This announcement contains forward-looking statements which incorporate an element of uncertainty or risk, such as 'intends', 'may', 'could', 'believes', 'estimates', 'targets', 'aims', 'plans' or 'expects'. These statements are based on an evaluation of current corporate estimates, economic and operating conditions, as well as assumptions regarding future events. These events are, as at the date of this announcement, expected to take place, but there cannot be any guarantee that such events will occur as anticipated or at all given that many of the events are outside of Exopharm's control or subject to the success of the Development Program. Furthermore, the Company is subject to several risks as disclosed in the Prospectus dated 6 November 2018.