ASX ANNOUNCEMENT

Market Update – April 2019

1 April 2019

The Board of Exopharm Ltd ('Exopharm' or the 'Company') is pleased to provide a market update on progress of the Development Program and its evolution into a clinical stage drug development company.

The main objective and focus is to validate the LEAP Technology and PLEXARIS and EXOMERE products, in advance of later potential partnership deals.

The present core activities of Exopharm are supporting later potential partnership deals:-

- manufacture of exosome product made with LEAP Technology
- clinical testing of Plexaris
- collaborations and publications

Highlights:

- Our product manufacturing facility is now operational in Melbourne for future manufacture of autologous Plexaris (platelet derived) product for our 'PLEXOVAL' study
- Documentation seeking approval to run the PLEXOVAL study has been completed and is being assessed
- Recent publications (including Liu et al 2019 from Johns Hopkins University) highlight the potential benefits of exosomes - with new data showing that that stem cell derived exosomes (also known as extracellular vesicles EVs) can reverse cellular aging (senescence) in vitro (i.e. in cells tested in a laboratory)
- Exopharm has built its manufacturing and analytics team together with the purchase of specialised equipment

Strategy confirmed:

The Board has reaffirmed its focus on taking Exopharm's exosome products purified using the LEAP Technology through into clinical testing as demonstration programs. The strategy is to demonstrate the LEAP Technology as an enabling platform manufacturing technology applicable to a range of uses in this emerging field.

The present development program seeks to take PLEXARIS and EXOMERE products into clinical trials for selected medical conditions (e.g. wound healing) to validate Exopharm's technologies. The development program is designed to support later potential allogeneic (off the shelf) therapeutic product based partnership deals.

Exopharm sees LEAP as the key to solving the bottleneck problem that is delaying the production and purification of clinical-grade exosomes/EVs.

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The 'bottleneck' problem revolves around the issue that whilst cells produce trillions of exosomes naturally, the problem has been to purify these natural nano-scale particles as a proper drug product.

With the LEAP Technology to break the purification bottleneck, Exopharm is positioned to be a worldwide leader in the commercialisation of therapeutic exosomes and exosome production.

A future partner may be more interested in commercialising Exopharm's products and LEAP Technology in other areas than those addressed by Exopharm's demonstration programs, which is possible with platform technologies.

At present Exopharm is not seeking to licence out its LEAP Technology to potential competitors.

Manufacture and Analytics:

Good progress has been made on the downstream process (DSP) development for PLEXARIS product by the Exopharm Manufacturing team based in Melbourne.

The Exopharm Manufacturing Team has been expanded with extra staff and new manufacturing equipment to support manufacture of product for clinical trials and other experimentation.

Exosomes require sophisticated analytical approaches and the Exopharm Analytics Team is addressing this challenge with extra expert staff and new analytic instruments.

Together, the Exopharm Manufacturing Team and the Exopharm Analytics Team have provided extensive information for inclusion in the PLEXOVAL study proposal.

Figure 1: Exopharm laboratory space, Exopharm founder and CEO Dr Ian Dixon with manufacturing executive Michael Whitmore, far left, and scientist Chantelle Blyth.

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PLEXOVAL study:

PLEXOVAL stands for **P**rospective open-**L**abel, single dose proof of concept study to Evaluate the safety, tolerability and biological activity of Platelet-derived **EX**tracellular Vesicles, on the augmentation of w**O**und healing rate and effect on scar formation following skin punch biopsy in healthy **V**olunteer **A**du**L**ts.

Exopharm is sponsoring the PLEXOVAL study which is being managed by a Contract Research Organisation (CRO) on behalf of Exopharm and will be run in Melbourne. Subject to approvals, the study is expected to involve up to 20 participants – 15 in cohort 1 and 5 in cohort 2.

PLEXOVAL is a First-in-Human (FIH) study primarily looking at the safety of PLEXARIS but also looking at the secondary exploratory signs of autologous PLEXARIS (exosomes from platelets) treatment on wound healing and scar formation.

Autologous PLEXARIS will be sourced from platelets collected from the participant at an apheresis unit in Melbourne. Platelets from the donor will be processed at Exopharm's manufacturing facility in Melbourne. Participants will have autologous PLEXARIS administered by injection at a Melbourne public hospital under Human Research Ethics (HREC) approvals and oversight by a Principal Investigator.

The PLEXOVAL study is scheduled to commence recruitment by around mid CY '19 with 2 cohorts to be recruited into the study. Cohort 1 participants will be monitored after recruitment and before treatment and out to around 42 days from the treatment date. The results of the study are anticipated to be provided to Exopharm as a formal Report after a period of assessment, analysis and checking.

At this stage it is not possible to estimate when the PLEXOVAL Report will be received by the Company, although it is not expected until CY '20. At this stage it is not possible to estimate when (or if) approvals will be granted to commence the PLEXOVAL study.

Recent expert publications highlight Exopharm's potential:

Further to Exopharm's announcement of 27 March 2019 summarising some of the many publications in the exosome field.

The paper from exosome experts at Johns Hopkins University [1] highlights two important points :-

- "the delivery of human iPSC-EVs attenuated cell aging and promoted cell proliferation, suggesting that highly purified EVs from human iPSCs may represent a cell-free approach for treating aging"; and

[1] Liu, S., et al., Highly Purified Human Extracellular Vesicles Produced by Stem Cells Alleviate Aging Cellular Phenotypes of Senescent Human Cells. Stem Cells, 2019

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- "a major bottleneck of MSC derived EV (MSC-EV)-based applications in clinics is the inefficient production and purification of clinical-grade EVs"

Note. iPSC is induced pluripotent stem cell, MSC is mesenchymal stem cell, EV is extracellular vesicle (another name for exosomes).

The first of these quotes highlights how stem cell derived exosomes have been shown to reverse cell aging (senescence) and the potential for stem cell derived exosomes to treat aging.

The second quote highlights the problem (the purification bottleneck) that Exopharm's LEAP Technology addresses. The purification bottleneck issue (that still exists in 2019) is holding back the treating of humans with stem cell derived exosomes.

Exopharm sees LEAP as the key to solving the bottleneck problem that is delaying the production and purification of clinical-grade exosomes/EVs. The LEAP Technology is referred to as a 'platform technology' – because the one technology can be used to make a range of products. Platform technologies can be especially important and valuable once a few example products have derisked the performance and safety of the platform technology itself.

ENDS.

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ABOUT EXOPHARM

Exopharm Limited ("Exopharm" or the "Company") (ASX:EX1) is an Australian regenerative medicine biopharmaceutical company seeking to develop and commercialise exosomes as therapeutic agents – initially a product called Plexaris™ and later a product called Exomeres™.

These products are exosomes that are derived from human platelets in relation to Plexaris, and adult stem cells in relation to Exomeres, and purified using the LEAP Technology and referred to as biologic products.

As its primary focus, Exopharm aims to be a leader in the field of human therapeutics using exosomes as regenerative medicine products for heath span related conditions.

The Development Program: The Company's main objectives for the next 12 months are to complete the following stages of its Development Program using the funds raised from the Prospectus Offer:

1. manufacturing - make and supply clinical grade autologous Plexaris product and development of the Exomere manufacturing process;
2. clinical use - initial small-scale human clinical studies of autologous Plexaris in wound healing;
3. supporting research and development activities - conducting research activities to support the ongoing Development Program and the development of related intellectual property; and
4. to also investigate other LEAP Technology Opportunities.

CORPORATE SNAPSHOT

Exopharm Limited is listed on the Australian Securities Exchange (ASX:EX1).

EXOPHARM: EXTENDING HEALTH SPAN THROUGH CELL FREE REGENERATIVE MEDICINE

BOARD: Non-Executive Chairman: MR JASON WATSON; Founder, Managing Director DR IAN DIXON; Non-Executive Director and Company Secretary MR DAVID PARKER

ISSUED CAPITAL: 80,500,000 Fully Paid Ordinary shares on issue.

For more information please visit: exopharm.com or contact Dr Ian Dixon on (03) 9111 0026 or via email, info@exopharm.com.

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.

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