AdAlta and XL-protein announce collaboration to develop a long acting version of its lead fibrosis drug candidate AD-114 using PASylation® Technology

MELBOURNE, Australia and FREISING, Germany, 7 November 2016: AdAlta Ltd (ASX: 1AD), the biotechnology company advancing its lead i-body candidate towards clinical development, and XL-protein GmbH, a privately owned German biopharmaceutical company specialized in the design of biobetters with extended half-life, announced today that they have entered into a collaboration on the development and commercialization of a long acting form of AD-114, a novel first-in-class drug candidate for fibrosis therapy.

Under this collaboration agreement, XL-protein will apply its proprietary PASylation® technology to AD-114 to extend its circulation half-life and, thus, duration of therapeutic action. AD-114 is AdAlta's lead i-body drug candidate being developed for the treatment of idiopathic pulmonary fibrosis (IPF) and a variety of other fibrotic and inflammatory diseases. In preclinical studies of IPF, the initial indication for AD-114, the i-body has shown both anti-fibrotic activity as well as anti-inflammatory activity, which are important for the treatment and prevention of this disease.

A long-acting form of AD-114 that has a significantly extended plasma half-life would allow less frequent administration and lower dosing, making it ideal for treating chronic indications such as IPF.

XL-protein's PASylation® technology offers a biological alternative to PEGylation, an established chemistry procedure that is used to modify and tailor residence time of protein drugs in blood plasma.

The PASylation® technology utilizes genetic engineering to fuse a polymer of natural amino acids (Proline, Alanine and/or Serine) with a protein-based therapeutic such as AD-114, thereby enabling manufacture of a fully active protein in various host organisms, including the laboratory bacterium *Escherichia coli.* The PASylation® approach not only provides a tunable plasma half-life that is related to the length of the PAS polymer but also offers traceless metabolization.

"XL-protein is providing a smart, biological approach to enable precise modifications to AD-114 that are designed to prolong its circulation time in the body and therefore window of activity. We

are excited to be working with the XL-protein team as we aim to progress AD-114 towards the clinic by early 2018" said Sam Cobb, CEO of AdAlta.

"We are pleased to report that preliminary data from pilot studies in animal models look promising as this shows that the plasma half-life of AD-114 has been dramatically extended. In terms of manufacturing, this modification is easily incorporated into AD-114, allowing facile scale-up and downstream purification" commented Claus Schalper, CEO of XL-protein.

Financial terms have not been disclosed.

About AdAlta Limited

AdAlta Limited (ASX:1AD) is an Australian based drug development company headquartered in Melbourne. The Company is focused on using its proprietary technology platform to generate i-bodies, a new class of protein therapeutics, with applications as therapeutic drugs to treat diseases.

AdAlta is developing its lead i-body candidate, AD-114, for the treatment of idiopathic pulmonary fibrosis (IPF) and other human fibrotic diseases, for which current therapies are sub-optimal and there is a high-unmet medical need. AD-114 has strong pre-clinical results for IPF, demonstrating both anti-fibrotic and anti-inflammatory activity in human lung tissue and indicating greater efficacy than existing approved IPF drugs.

The i-body is a human analogue of the antigen binding domain of the shark antibody, which combines the advantages of monoclonal antibodies (high target specificity and affinity) with the beneficial stability features of small molecules. In addition to stability, the i-body has a long binding loop that is a feature of shark antibodies not present in either human or next generation antibodies. This feature enables the i-body to recognise and bind to a diverse range of different therapeutically-relevant drug targets, including those that are difficult/intractable to access by current antibody therapies. These include clinically important targets such as G-protein coupled receptors (GPCRs) and ion channels.

The Company also plans to continue further drug discovery and development directed towards other drug targets and diseases with its i-body technology platform.

Further information can be found at: www.adalta.com.au

About XL-protein GmbH

XL-protein is a German biotech company commercializing the ground-breaking PASylation® technology, which enables the design of biopharmaceuticals with extended plasma half-life and enhanced action. With its strong proprietary technology position XL-protein focuses at the preclinical as well as clinical development of PASylated proteins and peptides in various disease areas. The company is enganged in several biological drug programs with renowned pharma partners.

Further information can be found at: www.xl-protein.com

About PASylation®

Rapid kidney clearance is a drawback of most therapeutic proteins and peptides. Conformationally disordered polypeptide chains with large hydrodynamic volume made of the L-amino acids Pro, Ala, and/or Ser (PAS) provide an alternative to chemical conjugation with PEG in order to extend the plasma half-life of biologics. PAS sequences are hydrophilic, uncharged biological polymers with PEG-like biophysical properties. In contrast, beside chemical coupling PAS polypeptides offer simple fusion to a biological drug at the genetic level as well as biodegradability, thus preventing tissue accumulation. PASylation has been successfully applied to a series of biopharmaceuticals, including interferon, leptin, exendin, coagulation factors, lipocalins and Fab fragments, yielding several drug candidates currently on the route towards clinical study.

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