



Lead antibodies selected for breast cancer proof of concept testing

SYDNEY, Australia, 19 May 2011: Perseis Therapeutics, a subsidiary of Neuren Pharmaceuticals (ASX:NEU) has completed the in vitro testing phase of its antibody screening program and has selected three fully human monoclonal antibodies to validate in an animal model using human breast cancer cells.

Perseis is developing antibodies targeting Trefoil Factors ("TFFs) 1 and 3 for the treatment of breast and other cancers. Perseis was formed in 2009 as a joint venture between Neuren Pharmaceuticals and the New Zealand Breast Cancer Research Trust to develop the research of Professor Peter Lobie and his team at the Liggins Institute in Auckland. TFFs are proteins produced by cancer cells and regulated by estrogen that act as growth factors, promoting cancer growth and spread in a number of solid tumours including breast, colon, prostate and stomach cancer. TFFs are expressed in up to 68% of breast cancers, have been detected in the blood of patients who still have residual disease after treatment and are strongly associated with survival in breast cancer patients with metastatic disease¹.

Monoclonal antibodies are the leading approach to molecular targeting, the fastest growing segment of biopharmaceuticals. Molecularly targeted drugs and biologics exhibit highly specific activity, often with better efficacy and fewer side effects than traditional drugs. In 2008, the global monoclonal antibody market was valued at \$27.4 with an annual growth rate of 30.8%. By 2016, six of the top ten billion dollar drugs are predicted to be monoclonal antibodies.

In the course of its antibody development programme Perseis has screened a large number of candidates from three pools of mouse antibodies produced in Australia, Singapore and China. However the lead antibodies to be taken into animal models originate from a human antibody fragment library. Initial screening of that library was conducted at the University of Queensland and further screening to determine which antibodies had the ability to inhibit the growth of human breast and gastric cancer cells growing in culture was conducted by Aragen Bioscience, Inc. in the United States. Fully human antibodies typically result in shorter and less expensive development and reduced risk of patient reactions to residual

¹ Amiry et al Trefoil Factor 1 enhances oncogenicity in mammary carcinoma cells. Endocrinology Oct 2009





murine proteins in the finished drug product. Summary data produced by Aragen for the three antibodies to be taken forward are:



Commenting on the results, Dr Parmjot Bains, CEO of Perseis, said: "We are excited by these results, which have been the result of significant effort by world-class researchers across the globe. As we move forward with this exciting program, we are hopeful that it will support BCRT's goal of reducing or eliminating breast cancer by 2018."





pharmaceuticals

Perseis and Neuren are engaged in discussions with a number of global pharmaceutical companies and intend to enter into a licensing or collaborative agreement based on results from the confirmatory in vivo studies.

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