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ASX / MEDIA ANNOUNCEMENT

Alchemia's HyACT technology enhances the killing of cancer stem cell populations in breast and colorectal cancer.

21st April 2010; Alchemia's (ASX: ACL) subsidiary Alchemia Oncology today presented two posters at the American Association of Cancer Research (AACR) 101st Annual Meeting in Washington, DC. The data demonstrates the ability of the Company's HyACT tumour targeting technology to dramatically enhance the killing of cancer stem cells. These cells are highly resistant to treatment with chemotherapeutic drugs and are believed to be responsible for treatment failure and disease recurrence.

Two posters were presented today at the 'Cancer Stem Cell Therapeutics 2' session from 2:00-5:00pm EDT in Exhibit Hall A-C entitled,

Poster #4278: HA-Irinotecan targeting of activated CD44 is an effective therapy for the eradication of putative colon cancer stem cells

Poster #4293: Evaluation of activated CD44 as a biological target in the eradication of breast cancer stem cells

In new data presented today by Professor Tracey Brown, Alchemia's Vice President of Preclinical Research, the HyACT formulation of doxorubicin (HA-Doxorubicin) has been shown to be up to forty times more potent than doxorubicin alone in killing putative breast cancer stem cells. Similarly, in human colorectal cancer cells, HyACT formulations of the drug irinotecan (HA-Irinotecan) showed up to a fifty fold increase in potency against stem cell like populations.

Despite advances in the treatment of cancer with new chemotherapeutic agents and targeted therapies, many patients develop tumours that are resistant to treatment, resulting in treatment failure. In recent years, attention has focused on the role of a sub-population of cells, referred to as 'cancer stem cells', which are highly resistant to treatment. One of the markers used to define this difficult to eradicate cell population is CD44, which is specifically targeted by Alchemia's HyACT technology.

"In previous research we have clearly established that reformulation of cancer drugs with HyACT enhances the ability of that drug to kill cells expressing the receptor CD44," said Professor Tracey Brown. "It is increasingly accepted that cancer stem cells from a majority of solid tumours express high levels of activated CD44. Our research presented today confirms that targeting of drugs to that receptor with HyACT may help to eradicate this otherwise difficult to treat population of cells. Indeed, it may explain the significant increases in efficacy that we have seen in previously reported Phase 2 clinical studies of HA-Irinotecan in colorectal cancer and preclinical data from models of several different cancer types."

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“The role of cancer stem cells in the genesis and progression of the disease is receiving intense scrutiny in the research and clinical communities,” said Pete Smith, CEO of Alchemia. “These data provide additional excitement around the technology as we prepare to start the pivotal Phase III study of HA-Irinotecan in colorectal cancer.”

The posters presented at today’s session at AACR are now available to view on Alchemia’s website www.alchemia.com.au/irm/content/investor_presentations.html

Ends

About Alchemia Limited – www.alchemia.com.au

Alchemia is a drug discovery and development Company founded on its chemistry expertise. The Company’s lead program is fondaparinux (a generic version of GlaxoSmithKline’s Arixtra®, a synthetic anticoagulant mainly used for the prevention of deep vein thrombosis). The ANDA for generic fondaparinux was filed for approval with the US FDA in March 2009. Fondaparinux is expected to generate positive cash-flows for the company commencing in the second half of calendar 2010. It is partnered with Dr Reddy’s Laboratories Inc. for the U.S. market. Alchemia’s pipeline of assets is built on two platform technologies: HyACT® (targeted cancer delivery) and VAST® (drug discovery). The primary objective of the HyACT® technology is to develop a new generation of anti-cancer drugs which demonstrate better efficacy. The lead product from the HyACT® platform is HA-Irinotecan for which a phase III clinical trial in metastatic colorectal cancer will commence in 2010. In addition to HA-Irinotecan, Alchemia has successfully taken two other anti-cancer products HA-Doxorubicin (doxorubicin and hyaluronic acid) and HA-Fluorouracil (5-fluorouracil and hyaluronic acid) into successful Phase I clinical testing and they continue to development on five other HyACT® drugs.

About AACR

AACR is a professional society of more than 24,000 laboratory and clinical scientists engaged in basic, translational, and clinical cancer research in the United States and more than 60 other countries. Its annual meeting is attended by more than 15,000 scientists from around the world who share new and significant discoveries in the cancer field.

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