



**24 APRIL 2008**

### **ARANA AND KYOWA HAKKO TO CO-DEVELOP ANTI-CANCER DRUG**

Arana Therapeutics Limited, and Kyowa Hakko Kogyo Co., Ltd. (Kyowa Hakko), a major Japanese biotechnology company, today announced they have entered into an agreement to co-develop a new anti-cancer drug for colorectal cancer (ART104).

Terms of the co-development agreement include:

- Arana will receive an upfront US\$4 million payment and additional milestones of up to US\$4 million.
- ART104 will be enhanced using Kyowa Hakko's proprietary POTELLIGENT<sup>®</sup> and COMPLEGENT<sup>™</sup> Technologies.
- Arana and Kyowa Hakko will have equal ownership of the product and will equally share development costs.
- Kyowa Hakko has an option to develop and commercialise the product in some Asian markets such as Japan, South Korea, Taiwan and China. Arana will receive royalties on these sales.

Dr. John Chiplin, CEO of Arana said "We are delighted to be working with Kyowa Hakko and their exciting technologies. This agreement will enhance the likelihood of successful development of an effective anti-cancer drug. The transaction enables Arana to retain 50% ownership of the product while reducing the risk and cost of development."

"Kyowa Hakko's POTELLIGENT<sup>®</sup> and COMPLEGENT<sup>™</sup> Technology are major breakthroughs in antibody development and the application of them is a logical next step in the development of ART104. We are looking forward to working with Kyowa Hakko to bring this product to the clinic to help treat cancer," Dr. Chiplin added.

Dr. Nobuo Hanai, Managing Officer of Kyowa Hakko, Division Head, Pharmaceutical Research & Development Division, Pharmaceuticals Business Unit, said,

"We are very excited about this collaboration. Arana is well known for its expertise in antibody-based drug development and this collaboration complements Kyowa Hakko's mission to bring about the benefit of POTELLIGENT<sup>®</sup> and COMPLEGENT<sup>™</sup> Technology to cancer patients as quickly as possible."

### **About Arana Therapeutics**

Arana Therapeutics Limited (ASX: AAH; AIM: AAHx) is an international biopharmaceutical company formed through the merger of Peptech and EvoGenix in August 2007. The company uses superior technology to develop next generation drugs that will improve the lives of patients with inflammatory diseases and cancer.

Arana Therapeutics' innovative engineering technologies provide the basis for clinical development in the antibody space, a market which draws on high demand. Arana Therapeutics has the financial stability and management expertise to accelerate its clinical programs, and is on track to have at least 3 clinical stage assets within three years.

Arana is listed on the Australian Securities Exchange (ASX) and the London Stock Exchange (AIM). The pipeline consists of four lead drug programs: ART621 to treat severe rheumatoid arthritis, psoriasis and other inflammatory diseases; ART010 to treat osteoporosis and bone cancer; ART104 to treat solid tumours such as colorectal cancer; and ART150 for lung cancer and melanoma. Additionally, the company has earlier stage products in development for the treatment of a range of conditions including age related macular degeneration, psoriasis, colorectal cancer, and leukemia. Arana has recurring revenues from commercial and development partnerships with six international companies including GSK, CSL, Centocor (J&J) and Abbott Laboratories.

For further information: [www.arana.com](http://www.arana.com)

### **About Kyowa Hakko**

Kyowa Hakko(TSE:4151) is a biotechnology-based company focused on two businesses: pharmaceutical operations engaged in the research and development, manufacturing, and marketing of prescription drugs; and bio-chemical operations that handle a variety of products such as amino acids, nucleic acids, and nutritional supplements/healthcare products. Its pharmaceutical business places emphasis on research and development in the fields of oncology, allergy, and the central nervous system. In Japan, Kyowa Hakko is marketing medications for a wide range of diseases, including allergy, hypertension, angina pectoris, and cancer. With the aim of penetrating the global market, Kyowa Hakko has overseas development bases in the U.S. (Kyowa Pharmaceutical, Inc. and BioWa, Inc.) and in the U.K. (Kyowa Hakko U.K. Ltd.). In the U.S., the U.K., and China, they are pushing ahead with the clinical development of new drug candidates as well as the therapeutic antibody business based on Kyowa Hakko's proprietary technology (POTELLIGENT® and COMPLEGENT™) that enhances the activity of antibodies.

On 22 October 2007, Kyowa Hakko announced that the Kyowa Hakko group and the Kirin group entered into an agreement to merge. Through this merger, the two groups will endeavor to build a global leader in the research and development-driven life sciences business based in Japan, which is centered on pharmaceutical operations with strengths in biotechnology. The new company "Kyowa Hakko Kirin Co., Ltd." will start operating on Oct. 1, 2008.

For more information on Kyowa Hakko, visit <http://www.kyowa.co.jp/eng/index.htm>

### **About POTELLIGENT® Technology**

ADCC activity is an important immune mechanism that permits immune cells to kill targets, e.g. cancer cells. Enhancement of this activity is one promising approach in the next generation of antibody technologies.

The POTELLIGENT® technology involves the reduction of the amount of fucose in the carbohydrate structure of an antibody. Research shows that POTELLIGENT® technology significantly enhances the ADCC activity of antibodies in vitro, thereby increasing the potential for improved activity in vivo.

**About ADCC activity**

ADCC activity is the one of the functions of human immune system which enables leukocytes such as natural killer and monocytes to kill the target cell such as cancer cells in the presence of antibody.

**About COMPLEGENT™ Technology**

Complement-Dependent Cytotoxicity (CDC) is one of the major pharmacological effects of therapeutic antibodies as well as Antibody-Dependent Cellular Cytotoxicity (ADCC). Immunoglobulin G molecule has several isotypes which differ in biological effects. We have successfully created an antibody molecule with enhanced CDC by incorporating a part of the amino acid sequence of IgG3 into the sequence of IgG1, standard isotype for therapeutic antibody, in the way the advantages of each isotype are combined together (Isotype Chimerism).

The antibody that is produced by using COMPLEGENT™ Technology has CDC activity superior to both isotypes of natural IgG1 and IgG3. In addition, the antibody with enhanced ADCC and CDC can be produced using both COMPLEGENT™ and POTELLIGENT® Technology.

**About CDC activity and Complement**

CDC activity is one of the functions of human immune system where activated complement kills the target cell.

Complement is a mechanism acquired by multi-cellular organism to defend themselves against foreign organisms. Complement, activated by binding to antigen-antibody complex or pathological microorganisms, supports the functions of antibody, such as phagocytosis or lysis of foreign organisms.

**Contact information: Arana Therapeutics****Company:**

Dr John Chiplin  
Chief Executive Officer  
Arana Therapeutics  
T: + 61 2 8061 9900  
E: jchiplin@arana.com

**Investor & Media Relations:**

Paul Dekkers  
Buchan Consulting  
T: + 61 2 9237 2800  
Mobile: 0418 218 722  
E: pdekkers@bcg.com.au

**Contact information: Kyowa Hakko:****Company:**

TETSURO KUGA, Public Relations  
Kyowa Hakko Kogyo Co., Ltd.  
1-6-1, Ohtemachi, Chiyoda-ku, Tokyo, Japan  
100-8185  
Tel: +81-3-3282-1903  
Fax: +81-3-3282-0990  
e-Mail: info@kyowa.co.jp