

## Press Release

### **Lonza and BioWa Sign POTELLIGENT® CHOK1SV Cell Line Technology Licensing Agreement with MedImmune**

**Basel Switzerland/ La Jolla CA**, 11 December 2013 – BioWa, Inc. and Lonza today announced that they have entered into a licensing agreement with MedImmune, the global biologics research and development arm of AstraZeneca. MedImmune has licensed the companies' POTELLIGENT® CHOK1SV Cell Line Technology for use in multiple proprietary antibodies in its pipeline.

POTELLIGENT® CHOK1SV is a host cell line for manufacturing recombinant antibodies that combines the power of BioWa's engineered glycosylation POTELLIGENT® Technology with the advantages of Lonza's industry leading GS Gene Expression System™. The GS System™ includes Lonza's pre-eminent host cell line, CHOK1SV. POTELLIGENT® Technology is designed to improve the potency and efficacy of therapeutic antibodies by enhancing antibody-dependent cellular cytotoxicity (ADCC), one of the major mechanisms of therapeutic antibodies.

MedImmune entered into a previous licensing agreement with BioWa in 2007 for POTELLIGENT® Technology. Today's agreement incorporates Lonza's technology to the existing POTELLIGENT® Technology.

"We are very pleased to extend our relationship with MedImmune, a global biologics company who has recognized the core value of POTELLIGENT® Technology for the development of antibody-dependent cellular cytotoxicity enhanced antibodies," said Yasunori Yamaguchi Ph.D., President and CEO of BioWa.

The POTELLIGENT® CHOK1SV Cell Line retains the features of a high-producing cell line (robust, high-yielding, scalable), with the advantage of a proven bioprocess platform for the CHOK1SV Cell Line. Antibodies produced by this cell line exhibit enhanced ADCC and can exert potent cytotoxic effects even when their target antigen is low. In addition, they work in whole blood and retain all other desirable features of common antibodies.

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“It is a pleasure for us to enter to this agreement with MedImmune and BioWa,” said Karen Fallen, VP Head of Licensing, Lonza Custom Development Services. The combination of Lonza’s well-known GS System™ coupled with POTELLIGENT® CHOK1SV Cell Line provides our customers with a significant advantage in expression technology.”

“The combination of the technologies from BioWa and Lonza will help enhance our ability to produce high quantity potent antibodies for preclinical and clinical development programs, which is a key driver in making better medicines to treat patients,” said Herren Wu, Vice President, Research & Development, Global Head of Antibody Discovery and Protein Engineering, MedImmune.

The POTELLIGENT® CHOK1SV Cell Line is available under a license agreement with Lonza and BioWa. For more information on accessing the POTELLIGENT® CHOK1SV Technology, please contact [GSLonza@lonza.com](mailto:GSLonza@lonza.com).

### **About the GS Gene Expression System™**

The GS Gene Expression System™, which is owned and licensed by Lonza, is used for the production of therapeutic recombinant proteins and monoclonal antibodies. Over 100 biotechnology and pharmaceutical companies and over 85 academic laboratories worldwide are successfully using the GS Gene Expression System™ which has established itself as the industry standard. This system is characterized by its speed and ease of use. In addition, the higher yielding cell lines provide cost-efficient production of therapeutic proteins.

### **About Lonza**

Lonza is one of the world's leading suppliers to the pharmaceutical, healthcare and life science industries. Products and services span its customers’ needs from research to final product manufacture. It is the global leader in the production and support of chemical and biological active pharmaceutical ingredients. Biopharmaceuticals are one of the key growth drivers of the pharmaceutical and biotechnology industries. Lonza has strong capabilities in large and small molecules, peptides, amino acids and niche bioproducts which play an important role in the development of novel medicines and healthcare products. Lonza is also the world leader in

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microbial control providing innovative, chemistry-based and related solutions to destroy or to selectively inhibit the growth of harmful microorganisms. Its activities encompass the areas of water treatment, personal care, health and hygiene, industrial preservation, materials protection, and wood treatment. In addition, Lonza is a leader in cell-based research, endotoxin detection and cell therapy manufacturing. Furthermore, the company is a leading provider of value chemical and biotech ingredients to the nutrition and agro markets.

Lonza is headquartered in Basel, Switzerland and is listed on the SIX Swiss Exchange and secondary listed on the Singapore Exchange Securities Trading Limited ("SGX-ST"). In 2012, the company had sales of CHF 3.925 billion. Further information can be found at [www.lonza.com](http://www.lonza.com).

### **About POTELLIGENT<sup>®</sup> Technology**

POTELLIGENT<sup>®</sup> Technology improves potency and efficacy of antibody therapeutics by enhancing Antibody-Dependent-Cellular Cytotoxicity ("ADCC"), one of the major mechanisms of action for antibody therapeutics. POTELLIGENT<sup>®</sup> Technology involves the reduction of the amount of fucose in the carbohydrate structure of an antibody using a proprietary fucosyl transferase-knockout CHO cell line as a production cell. Research shows that POTELLIGENT<sup>®</sup> Technology dramatically enhances ADCC activity of an antibody in vitro, and significantly increases potency and efficacy of the antibody in vivo. A number of POTELLIGENT<sup>®</sup> antibodies are being investigated in human clinical trials. On May 29 2012, Kyowa Hakko Kirin Co., Ltd. ("Kyowa Hakko Kirin") launched POTELIGEO<sup>®</sup>. This milestone event represents a critical validation point for the POTELLIGENT<sup>®</sup> Technology.

### **About BioWa**

BioWa is a wholly owned subsidiary of Kyowa Hakko Kirin, a leading biopharmaceutical company in Japan, and is the exclusive worldwide licensor of the AccretaMab<sup>®</sup> platform. The AccretaMab<sup>®</sup> platform consists of POTELLIGENT<sup>®</sup> and COMPLEGENT<sup>®</sup> Technologies, creating a superior antibody molecule with enhanced ADCC and Complement-Dependent Cytotoxicity ("CDC") activities. BioWa is offering POTELLIGENT<sup>®</sup> and COMPLEGENT<sup>®</sup> Technologies to partners under a license to maximize the value of these technologies. Together with Kyowa Hakko Kirin, BioWa is

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committed to promote ADCC/CDC enhanced monoclonal antibody-based therapeutics to fight cancer and other life-threatening and debilitating diseases.

For more information about BioWa, visit our web site at [www.biowa.com](http://www.biowa.com).

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