

December 3, 2008

Chiome Bioscience Inc.  
Chugai Pharmaceutical Co., Ltd.

## Conclusion of a joint research agreement between Chiome and Chugai: Innovation in the research and development of therapeutic antibodies by means of the revolutionary “ADLib<sup>®</sup> System” monoclonal antibody identification technology

We wish to inform you that Chiome Bioscience Inc. (head office at 2-39-11 Hongo, Bunkyo-ku, Tokyo; Masaaki Fujiwara, President and CEO; hereinafter referred to as “Chiome”) and Chugai Pharmaceutical Co., Ltd. (head office 2-1-1 Nihonbashi Muromachi, Chuo-ku, Tokyo; Osamu Nagayama, President and CEO; hereinafter referred to as “Chugai”) have concluded a joint research agreement on the identification of monoclonal antibodies for multiple target proteins held by Chugai on November 1<sup>st</sup>.

Chiome and Chugai will identify monoclonal antibodies quickly and efficiently against multiple targets selected from a series of disease-associated proteins held by Chugai through the use of the ADLib<sup>®</sup> (Autonomously Diversifying Library) System held by Chiome. Such monoclonal antibodies are expected to have new additional values attributed to distinctive properties of the system and will be applied to pharmaceutical research of therapeutic antibodies in Chugai. On the basis of this agreement, Chugai will pay a contractual up-front payment to Chiome and will also pay milestone compensations in accordance with the results of the research. Other contractual conditions are not being made public. Chiome and Chugai have contracted a research collaboration agreement since July 2007, but under this agreement, the scope and number of the targets will be expanded and the collaborative research activities will be continuously performed.

Dr. Masaaki Fujiwara, President and CEO of Chiome, has stated as follows:

“I am extremely happy that Chugai has positively assessed the results provided by the ADLib<sup>®</sup> System in the previous joint research and that the multi-year and bigger present joint research agreement has been concluded. We have already established some technologies related to the system including an antibody screening method against antigen presenting cells, which will be applied to this joint research in order to accelerate identification of innovative antibodies. We will challenge and overcome the tough antigens against which no specific antibody has been identified yet.”

Dr. Mikio Arisawa, Senior Vice President, Head of Portfolio Management Unit of Chugai, has stated as follows:

“We have recognized the competitive advantages of the ADLib<sup>®</sup> System and will strengthen the collaborative relationship with Chiome in order to expedite the development of global therapeutic antibody products. We are expecting the outcomes generated by the ADLib<sup>®</sup> System as one of the most revolutionary Japan-oriented platform technologies.”

Chiome and Chugai will shorten the lead time and improve the quality/speed of the development of therapeutic antibodies by maximizing the synergistic effects of the ADLib<sup>®</sup> System and the capability of Chugai’s research and development of therapeutic antibodies through the collaboration.

### **Description of Chiome Bioscience Inc.**

Chiome was established in February 2005 after receiving authorization as a RIKEN venture enterprise whose aim is the commercialization of the ADLib<sup>®</sup> System. The ADLib<sup>®</sup> System is a revolutionary technology that has made it possible to rapidly generate monoclonal antibodies *in vitro* by building highly diversified antibody-presenting chicken cell libraries by means of homologous recombination in the form of gene conversion. Antibodies with high value that could not have been obtained using conventional methods have now been successfully generated. Since the end of 2005, Chiome has been undertaking the generation of antibodies using the ADLib<sup>®</sup> System. Efforts are now being directed toward forming alliances with multiple global therapeutic companies.

Name: Chiome Bioscience Inc.

Address of head office: Aronia Bldg., 2-39-11 Hongo, Bunkyo-ku, Tokyo

Established: February 8, 2005

Capital: ¥517,000,000

Representative: Masaaki Fujiwara, President and CEO

Home Page: <http://www.chiome.jp/>

### **Description of Chugai Pharmaceutical Co., Ltd.**

Chugai Pharmaceutical, specialized in prescription pharmaceuticals and based in Tokyo, is one of Japan's leading research-based pharmaceutical companies with strengths in biotechnology products.

Since the start of the strategic alliance with Roche in October 2002, Chugai is actively involved in prescription pharmaceutical R&D activities in Japan and abroad as an important member of the Roche Group. Specifically, Chugai is working to develop innovative products with global applications, focusing on the disease areas of oncology, renal disease, and bone and joint.

In Japan, Chugai's research facilities in Gotemba and Kamakura are collaborating to develop new pharmaceuticals and Ukima is conducting research for technology development for industrial production.

Overseas, Chugai Pharma USA and Chugai Pharma Europe are engaged in clinical development activities in the United States and Europe.

The consolidated sales in 2007 of Chugai totalled 344.8 billion yen and the operating profit was 66.7 billion yen. We are aiming at the consolidated sales of 460 billion yen and operating profit of 800 billion yen in 2012, as stated in new mid-term business plan "Sunrise 2012".

Name: Chugai Pharmaceutical Co., Ltd.

Address of head office: 2-1-1 Nihonbashi-Muromachi, Chuo-ku, Tokyo

Foundation: 1925

Established: 1943

Capital: ¥72,947,000,000 (As of December 31, 2007)

Representative: Osamu Nagayama, President and CEO

Home Page: <http://www.chugai-pharm.co.jp/>

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## **Reference**

### **1. ADLib<sup>®</sup> System**

This is a system that increases the diversity of antibody-producing DT40 cells by means of the activation of gene conversion. Monoclonal cells which produce specific antibodies can be easily obtained by using antigens conjugated with magnetic beads.

### **2. RIKEN ventures**

A RIKEN venture is a corporate group established by researchers of RIKEN, an institute active at the global cutting-edge of research, with the results of these researchers' activities as the core technology employed by the group. The main support measures provided by RIKEN include preferential measures in connection with the implementation and approval of patents and with joint research.