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Press Release



Japan Analytical Instruments Manufacturers' Association (JAIMA)

Japan Scientific Instruments Association (JSIA)

## **Content of the Special Exhibits Determined for the Advanced Diagnostics Innovation Zone, a Special Project for JASIS 2014**

### **Exhibits for the “Mahoro” General-purpose Humanoid Robot, the Research Results of FIRST Program, and International Biochip Standardization**

The Japan Analytical Instruments Manufacturers' Association (JAIMA; 1-12-3 Kanda Nishikicho, Chiyoda-ku, Tokyo 101-0054; chaired by Shigehiko Hattori, chairman of Shimadzu Corporation) and the Japan Scientific Instruments Association (JSIA; 3-8-5 Nihonbashi Honcho, Chuo-ku, Tokyo 103-0023; chaired by Hideto Yazawa, president of Dalton Co., Ltd.) have announced that they have determined the contents of the special exhibits for the Advanced Diagnostics Innovation Zone, a special project that will be part of the 2014 Japan Analytical & Scientific Instruments Show (JASIS 2014), which will be held at Makuhari Messe from September 3 (Wed.) to 5 (Fri.).

The events and lectures for the Advanced Diagnostics Innovation Zone, a special project that will be part of JASIS 2014, have already been introduced. The following is a description of the contents that have been decided on for the special exhibits of the zone. The themes of the exhibits will be “Research Results” and “Technology” as well as the “International Standardization” required for business expansion, all of which originate in Japan and which are targeted for dissemination globally. The exhibits will showcase two of the research results of the Funding Program for World-Leading Innovative R&D on Science and Technology (FIRST Program)—namely, a next-generation mass spectrometry system and innovative nano-biodesigns based on single-molecular analysis. The exhibits will also cover two topics that will be discussed in the keynote lectures: general-purpose humanoid robots and international biochip standardization activities.

The general-purpose humanoid robot exhibit will include a demonstration using “Mahoro,” which was jointly developed by the National Institute of Advanced Industrial Science and Technology (AIST) and Yaskawa Electric Corporation to automate lab work in biological sciences. Mahoro can perform work nearly equivalent to and sometimes even exceeding that of a human. It is expected to bring about an industrial revolution in the biotechnology industry, which has conventionally relied on manual labor.

The following is an overview of the special exhibits.

#### **Special Exhibit 1: Research Results Originating from Japan**

##### **Introduction to the Research Results of FIRST Program**

- Tanaka Project: Development of Next-generation Mass Spectrometry System Accelerates Early Diagnosis of Diseases and New Drug Discovery

Koichi TANAKA, senior fellow, Shimadzu Corporation

- Kawai Project: Research and Development of Innovative Nano-biodesigns Based on Single-molecular Analysis

Tomoji KAWAI, specially appointed professor, Institute of Scientific and Industrial Research, Osaka University

### Special Exhibit 2: Technology Originating from Japan

Life Science Revolution Brought about by the “Mahoro” General-purpose Humanoid Robot

- “Mahoro” General-purpose Humanoid Robot

Toru NATSUME, director, Molecular Profiling Research Center for Drug Discovery, AIST

### Special Exhibit 3: International Standardization Originating in Japan

International Standardization and the Future Commercialization of Genetic Testing

- Activities and Accomplishments of the Japan Multiplex bio-Analysis Consortium (JMAC), an Organization Working to Create and Promote Biochip Industries and Markets

### About JASIS

JASIS is the acronym for the Japan Analytical & Scientific Instruments Show. It is a specialized exhibition of analytical and scientific instruments that is organized by JAIMA and JSIA. The show is one of the largest comprehensive exhibitions of its kind in Asia. JASIS 2014 will take place for three days from September 3 (Wed.) to 5 (Fri.), 2014, at Makuhari Messe and surrounding facilities.

<http://www.jasis.jp/2014/en/>

### About FIRST Program

The Funding Program for World-Leading Innovative R&D on Science and Technology (FIRST Program) is a research support system that prioritizes researchers. It was created to enhance both Japan’s medium- to long-term international competitiveness and its underlying strengths in such fields as industry and security by promoting world-leading cutting-edge research over the course of three to five years. It also aims to ensure that the results of research & development benefit the society and its members.

<http://www8.cao.go.jp/cstp/sentan/> (in Japanese)

<http://www.jsps.go.jp/english/e-first/>

### Reference

Please refer to the Yaskawa Report 2013 for detailed information about Mahoro

([http://www.yaskawa.co.jp/ir/ir\\_document/annualreport/2013/jp/ar2013-6.pdf](http://www.yaskawa.co.jp/ir/ir_document/annualreport/2013/jp/ar2013-6.pdf) [in Japanese]).



“Mahoro” General-purpose humanoid robot (photo: Yaskawa Electric Corp.)

**Inquiries**

JASIS 2014 Office (within JAIMA)

Yuji Hamazaki

Tel: +81-3-3292-0642

URL: <http://www.jaima.or.jp/en/>