



## Yokogawa Acquires Label-free Image Analysis Technology from Finnish Company For the observation of live cells in the preclinical and clinical stages of regenerative medicine and iPS cell research

Johannesburg, July 1, 2015 - Yokogawa announces that it has obtained a label-free image analysis technology from Chip-Man Technologies Oy\* of Finland. With this technology, detailed computer analyses can be conducted of live cell images that have been taken with a microscope using a label-free technique. Formerly, this was only possible using fluorescence labeling.

In basic research, live cells are typically labeled with a dye and then irradiated by a laser or some other means so that they can be observed more easily under a microscope. However, this exposure to light often has a phototoxic effect on the cells. During the pre-clinical and clinical trials that are required for regulatory approval, it is necessary to carry out label- and irradiation-free observations of in vivo cell activity. Cells that are being cultured for transplantation must also be label-free. Yokogawa has acquired this technology for applications such as in vitro fertilization (IVF) and the coagulation and organization of differentiated cells in regenerative medicine, - where quality and safety are utmost concerns – and the sorting of iPS cells.

## Overview of the Acquired Technology

The technology acquired from Chip-Man Technologies enables the detailed computer analysis of images of label-free live cells taken using a conventional microscope, eliminating the need for a special optical system. Yokogawa offers confocal scanner units for use in basic research applications where the use of fluorescence labeling techniques is acceptable in the observation of live cells. By acquiring this label-free image analysis technology, we can now also offer solutions for preclinical and clinical applications. Leveraging this strength, we will expand our business in the fields of regenerative medicine and iPS cell research, both of which are expected to grow rapidly.

## \* Chip-Man Technologies Oy

A limited liability company that was founded in 2002 and has its headquarters in Finland. The company has a variety of technologies and products that are used in the medical and drug discovery fields. These include microscopes for observing cell cultures and the label-free cell image analysis technology that is the subject of this press release. This company's products are widely used



throughout Europe and other markets in fields and applications such as regenerative medicine and drug candidate evaluation testing.

**About Yokogawa** 

Yokogawa's global network of 88 companies spans 56 countries. Founded in 1915, the US\$3.5 billion company conducts cutting-edge research and innovation. Yokogawa is active in the Industrial Automation and Control (IA), Test and Measurement, and other businesses segments. The IA segment plays a vital role in a wide range of industries including Oil & Gas, Chemical, Food & Beverage, Iron & Steel, LNG Supply Chain, Petrochemical, Oil & Gas, Pharmaceutical, Power, Pulp & Paper, Refining, Renewable Energy and Water & Wastewater.

Yokogawa South Africa (Pty) Limited is an empowered South African company jointly owned by Identity Capital Partners (Pty) Ltd, a local black women-owned organisation, and Yokogawa Europe BV, incorporated in the Netherlands. Yokogawa Europe BV is owned by Yokogawa Electric Corporation, a Japanese company listed on the Tokyo Stock Exchange.

Yokogawa South Africa (Pty) Limited's comprehensive solutions range from sensors such as Pressure transmitters, Temperature, Flow meters, Level and Liquid & Gas Analysers) and network solution products, to control and safety systems. This includes the software for advanced control that optimises productivity; and services that minimise plant lifecycle costs. Yokogawa South Africa's Service Training Department is accredited and proficient in theoretical and practical training for Instrumentation and Control systems from first principles. Our Internship Programme contributes to the continued technical skills improvement in South Africa.

For more information about Yokogawa, please visit the company's website www.yokogawa.com/za or contact Christie Cronje in Corporate Communications.

Christie.cronje@za.yokogawa.com

Tel: +27 11 831 6300 Fax: +27 11 831 6370

Email: info@za.yokogawa.com

www.yokogawa.com/za

