# Shizuoka Cancer Conference 2014

Promoting Life Science Cluster Formation as a Force for Regional Economic Development

March 7, 2015 (Saturday)

**Plaza Verde** (Fuji-no-kuni Senbonmatsu Forum) Sponsored by Shizuoka Prefecture and the Shizuoka Cancer Center **Purpose** of the Program

Full-scale regional economic development is set to begin, and expectations are high that medical services in support of healthy old age will serve as a driver of such development. At this conference, our aims will be to focus on efforts in different regions to move ahead with life science clusters, discuss approaches to achieving new regional economic development amid falling populations and the superannuated society, and indicate directions for the development of medical services to maintain healthy old age to serve as a source of growth for Japan in a world of global competition.



Ken Yamaguchi, MD, PhD President, Shizuoka Cancer Center

Shizuoka Cancer March 7, 2015 (Saturday)
Conference 2014 Convention Hall B, 3F, Plaza Verde
(Fuji-no-kuni Senbonmatsu Forum) 1-1-4 Otemachi, Numazu, Shizuoka, Japan

**Program** 

# Theme: Promoting Life Science Cluster Formation as a Force for Regional Economic Development

	a roice io	r Regional Economic Development
10:00	Opening Address	Heita Kawakatsu Governor of Shizuoka Prefecture
10:10	Guest Speakers	Luvsansambuu Tumurbaatar "Hope" Cancer-Free Mongolia National Foundation; General Director, National Cancer Center of Mongolia
		Lu Xianghong
10.20		Hospital Director, 6th Affiliated Hospital of Wenzhou Medical University, Lishui, Zhejiang, China
10:20	Introduction of the	
10:40	Information Session	Building Regional Communities, Attracting Residents, and Creating Jobs
		Takeo Hoshino  Counselor, Secretariat of the Headquarters for Overcoming Population Decline and Vitalizing Local Economy in Japan / Division Manager, Regional Economic Industry Policy Division Regional Economy, Industries Group, Ministry of Economy, Trade and Industry
	Keynote Lecture I	National Growth Strategies for Supporting Economic Development
11:10	Special Address I-1	Healthcare Policy and a New Framework for Promoting Medical R&D Toshihide Fukui Director, Office of Healthcare Policy, Cabinet Secretariat
11:30	Special Address I-2	The Medical Devices Industry Policy of the Ministry of Economy, Trade and Industry
		Hiroshi Tsuchiya Director, Medical and Assistive Device Industries Office, Healthcare Industries Division, Commerce and Information Policy Bureau, METI
11:50	Special Address I-3	Efforts on the Part of the Ministry of Education, Culture, Sports, Science and Technology to Promote Cooperation Among Industrial, Academic, Government,
		and Financial Entities on a Local Basis
		Takeshi Uchida Senior Specialist, University-Industry Collaboration and Regional R&D Division, Science and Technology Policy Bureau
12:10	Question and Answer Session	
12:30	Lunch (60 minutes)	
	Keynote Lecture II	Trends in New Drug Development
13:30	Special Address II-1	Toward the Application of iPS Cells to Drug Development Shosaku Murayama President & CEO, IPS PORTAL, Inc.
14:00	Special Address II-2	The Status of Traditional Chinese Medicine in China
		Jing-Yan Han, MD, PhD Dean, Department of Integration of Chinese and Western Medicine, Peking University Health Science Center
14:30	Break (15 minutes)	
	Session: Life Science	ce Cluster Formation as a Force for Regional Economic Development
		Chairs: Coordinator Mamoru Sekiguchi Pharma Valley Center, Shizuoka Industrial Foundation Coordinator Masakazu Kanemoto Pharma Valley Center, Shizuoka Industrial Foundation
14:50	Lecture 1	The Pharma Valley Project: New Facilities
		Hideki Mizuguchi Assistant Director, R & D Management Division, Commerce and Industry Bureau, Economy and Industry Department, Shizuoka Prefectural Government
15:10	Lecture 2	The Application of Precision Machining Technology Developed by
		Fukui's Eyeglass Frame Industry to Medical Device Component Production
		Akira Inoue Director & Sales Manager, Yoshida Industry Co., Ltd.
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15:35	Lecture 3	Product Development Efforts and an Introduction to Multifunction Forceps for Endoscopic Surgery
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15:35 16:00	Lecture 3 Lecture 4	Multifunction Forceps for Endoscopic Surgery
		Multifunction Forceps for Endoscopic Surgery Tsuneyoshi Suzuki Chairman & CEO, Suzuki Precion Co., Ltd. University Cluster Formation through Bringing Together Medical Welfare Devices in Fukushima Prefecture
		Multifunction Forceps for Endoscopic Surgery Tsuneyoshi Suzuki Chairman & CEO, Suzuki Precion Co., Ltd. University Cluster Formation through Bringing Together Medical Welfare Devices in Fukushima Prefecture Ken Ichiryu Fukushima Pref. Medical & Welfare Device Promotion Program / Vice President, Kikuchi Manufacturing Co., Ltd.

# **Speaker Profiles / Overview of Lectures**

Information Session

## Building Regional Communities, Attracting Residents, and Creating Jobs

Speaker

Takeo Hoshino

Counselor, Secretariat of the Headquarters for Overcoming Population Decline and Vitalizing Local Economy in Japan / Division Manager, Regional Economic Industry Policy Division, Regional Economy Industries Group, Ministry of Economy, Trade and Industry



#### Curriculum Vitae

1987.3 Graduated from School of Engineering, University of Tokyo (Metallurgy Advanced Course)

1987.4 Entered Ministry of Economy, Trade and Industry
2007.7 Counselor (Advanced Device Industries), Minister's Secretariat
Division Manager, Technical Cooperation Division, Trade and
Economic Cooperation Bureau
2011.7 Division Manager, Nonferrous Metals Division Manufacturing

Division Manager, Nonferrous Metals Division, Manufacturing Industries Bureau

2012.9 Chief Engineer & Chief Information Officer, National Institute of Technology and Evaluation

2013.2 Counselor to Director-General, Reconstruction Agency
Division Manager, Regional Economic Industry Policy Division,
Regional Economy Industries Group

2014.9 Counselor, Secretariat of the Headquarters for Overcoming Population Decline and Vitalizing Local Economy in Japan (concurrent position) Addressing the problem of shrinking regional economies, a consequence of the trend toward a low-birthrate, aging society, is a pressing challenge for Japan. In late 2014, the Cabinet Secretariat issued a strategy, with indications for measures to be adopted over the next five years, to attract a flow of new residents and build invigorated regional communities through new job creation. The presentation will cover specific efforts to promote this comprehensive strategy.

## Keynote Lecture I: National Growth Strategies for Supporting Economic Development

Special Address 1-1

Healthcare Policy and a New Framework for Promoting Medical R&D

Speaker

Toshihide Fukui Director, Office of Healthcare Policy, Cabinet Secretariat



#### Curriculum Vitae

1995.3 Graduated from Graduate School of Engineering, Nagoya University
1995.4 Joined the Science and Technology Agency
2002.6 Graduated from Simon School, University of Rochester

Director, General Affairs Division, Department of General Affairs,
Osaka University

2007.7 First Secretary, Embassy of Japan in Germany 2014.7 Director, Office of Healthcare Policy, Cabinet Secretariat Japan is first among the nations of the world in facing the challenges of transitioning to a superannuated society. One of the most important challenges will be the extension of healthy old age through the world's most advanced medical technologies and services to realize a society of healthy, long-lived individuals. The presentation will include a summary of the Healthcare Policy formalized by the Japanese Cabinet on July 22, 2014, which looks ahead to this challenge, as well as research and development in new medical fields to be overseen by the Japan Agency for Medical Research and Development, to be established on April 1, 2015.

## Special Address 1-2

# The Medical Devices Industry Policy of the Ministry of Economy, Trade and Industry

Speaker

Hiroshi Tsuchiya

Director, Medical and Assistive Device Industries Office, Healthcare Industries Division, Commerce and Information Policy Bureau. METI



#### Curriculum Vitae

1998.4 Entered Ministry of Economy, Trade and Industry
2008.7 Assistant Division Manager, Energy Efficiency and Conservation
Division, Energy Conservation and Renewable Energy
Department, Agency for Natural Resources and Energy
2010.6 Assistant Division Manager, Service Affairs Policy Division,
Commerce and Information Policy Bureau
2011.6

2011.6 Assistant Division Manager, Policy Planning Division, Energy Conservation and Renewable Energy Department, Agency for Natural Resources and Energy

2012.7 Policy Planning Committee Member, General Affairs Division, Minister's Secretariat

2013.6 Policy Planning Committee Member, Agency for Natural Resources and Energy

2014.6 Director, Medical and Assistive Device Industries Office,
Healthcare Industries Division, Commerce and Information Policy
Bureau, METI

The Japanese government has positioned the medical industry, including the medical devices industry, as a growth industry to be developed into a driver of the Japanese economy, and is actively seeking to strengthen research and development as well as promoting cross-border collaboration. The presentation will cover the ministry's support for the collaboration between medicine and industry, the development of innovative medical devices and the launch of the Medical Device Development Support Network, in view of overall government policy and ahead of full-scale operation of the Japan Agency for Medical Research and Development.

Special Address 1-3

Efforts on the Part of the Ministry of Education, Culture, Sports, Science and Technology to Promote Cooperation Among Industrial, Academic, Government, and Financial Entities on a Local Basis

Speaker

Takeshi Uchida Senior Specialist, University-Industry Collaboration and Regional R&D Division, Science and Technology Policy Bureau



#### Curriculum Vitae

Policy Bureau

2005.4 Entered the Ministry of Education, Culture, Sports, Science and Technology Nuclear Safety Division, Science and Technology Policy Bureau Traditional Culture Division, Cultural Properties Department, Agency for Cultural Affairs Lifelong Learning Promotion Division, Lifelong Learning Policy Bureau 2nd Division, 5th Department, the Legislative Bureau of the House of Councillors Facilities Planning Division, Department of Facilities Planning and Administration, Minister's Secretariat University-Industry Collaboration and Regional R&D Division, Science and Technology

Regional efforts to promote scientific and technological innovation will create and nurture new regional growth industries, and will be important for regional revitalization through medium- to long-term promotion of industry and job creation. The presentation will cover topics discussed in the most recent advisory councils and introduce new initiatives for 2015, touching on measures taken so far by the ministry to promote regional science and technology, and will include comments on notable aspects of regional efforts to promote scientific and technological innovation.

## Keynote Lecture II: Trends in New Drug Development

## Special Address II-1

## Toward the Application of iPS Cells to Drug Development

### Speaker

Shosaku Murayama President & CEO, iPS PORTAL, Inc.



#### Curriculum Vitae

1972.3

1980.5

20147

1972.4 Joined the Bank of Japan Economist, New York Office, Bank of Japan 1981.2 1987-1988 Lecturer (Econometrics), University of Tokyo General Manager, Takamatsu Branch, Bank of Japan 1994.11 1998.6 Director, Research and Statistics Department, Bank of Japan 20023 President & CEO, Teikoku Seiyaku Co., Ltd. President & CEO, iPS Academia Japan, Inc. 2011.6 2011.7 Advisor, Hvakujushi Bank (concurrent position) 2013.6 Director, Forum for Innovative Regenerative Medicine (concurrent position) 2013.6 Director, Screen Holdings, Co., Ltd. (concurrent position) 2014.6 Director, Toho Holdings, Co., Ltd. (concurrent position)

President & CEO. iPS PORTAL Inc.

Graduated from Doshisha University, Bachelor of Economics

M.A. (Economics), University of California, Los Angeles

Expectations are rising with respect to the application of iPS cells to regenerative medicine. However, iPS cells also show great promise in the field of new drug development. In fact, from the standpoint of commercialization, the application of iPS cells to new drug development is more advanced. Safety testing using iPS cell-derived myocardial and other cell types is entering the realm of practical application as an adjunct to conventional animal testing. Elucidation of disease mechanisms using disease iPS and application of iPS cells to drug candidate screening are also making progress. If iPS cell applications continue to progress, they may lead to revolutionary new drugs and greatly reduce the need for drug development investment.

## Special Address II-2

## The Status of Traditional Chinese Medicine in China

Speaker Jing-Yan Han, MD, PhD Professor and Dean, Department of Integration of Chinese and Western Medicine, Peking University Health Science Center



#### Curriculum Vitae

Education 1982.12 1989.7 1999.6 2002.10 Professional and Teaching Experience 1982.12

> 1991.9 2000.6 2002.6

2002.6 2004.9-present 2008.5-present

2009-present

2009.4-present 2010.9-present Graduated from Liaoning University of Chinese Medicine, Bachelor of Medicine Graduated from Graduate School of Liaoning University of Chinese Medicine, Master of Medicine Finished Graduate School of Medicine, Keio University Beceived PhD, Doctor of Medicine, from Graduate School of Medicine of Keio University, Japan

Assistant Professor, Department of Basic Chinese Medicine, Liaoning University of Chinese Medicine Assistant Professor, Department of Pathology and Physiology, 2nd Affiliated Hospital, Liaoning University of Chinese Medicine

Visiting Researcher, Department of Internal Medicine, Keio University School of Medicine Visiting Researcher, Department of Internal Medicine, Keio University School of Medicine Co-Researcher, Department of Internal Medicine, Keio University School of Medicine Director, Tasly Microcirculation Research Center, Peking University Health Science Center Professor, Department of Integration of Chinese and Western Medicine, School of Basic Medical Science, Peking University Health Science Center

Professor and Chair, Department of Integration of Chinese and Western Medicine, School of Basic Medical Science, Peking University Health Science Center

Guest Professor, Department of Internal Medicine, Keio University School of Medicine Dean, Department of Integration of Chinese and Western Medicine, Peking University Health Science Center

With a population of 1.36 billion, China is facing many of the same medical issues as Japan. Cancer, ischemic heart disease, and cerebrovascular disease are the leading three causes of death. However, the Chinese medical system embraces Western medicine and traditional Chinese medicine as well as approaches to treatment that combine the two. In particular, Chinese and Chinese/Western medicine are effective in the treatment of chronic and complex diseases, and play an important role in health maintenance. The speaker has long been engaged in research and education relating to traditional Chinese medicine in both Japan and China. This lecture will cover traditional Chinese medicine education and treatment in China today, as well as the development of new medicines from traditional Chinese medicines.

# **Speaker Profiles / Overview of Lectures**

Session: Life Science Cluster Formation as a Force for Regional Economic Development

Lecture 1

## The Pharma Valley Project: New Facilities

Speaker

Hideki Mizuguchi Assistant Director, R & D Management Division, Commerce and Industry Bureau, Economy and Industry Department, Shizuoka Prefectural Government



1987.4 2010.4

Entered Shizuoka Prefectural Government Chief, Planning and Human Resources Section, General Affairs Division, Secretariat of Shizuoka Cancer Center

Director, Ito City Office

Assistant Director, Research and Development Management Division, Commerce and Industry Bureau, Economy and Industry Department, Shizuoka Prefectural Government

With the goal of becoming the world's healthiest, longest-lived prefecture, Shizuoka Prefecture is promoting the Pharma Valley Project, a medical-health-industrial cluster. The project's achievements to date include the creation of a network of approximately 500 industrial, academic, government, and financial entities, and the development of more than 70 new products. To accelerate these activities, a new project anchor facility is being prepared on the site of a former prefectural high school adjacent to the Shizuoka Cancer Center. The project is pointing the way toward a new regional revitalization model based on open innovation by a wide range of large and small business enterprises.

Lecture 2

The Application of Precision Machining Technology Developed by Fukui's Eyeglass Frame Industry to Medical Device Component Production

Speaker

Akira Inoue Director & Sales Manager, Yoshida Industry Co., Ltd.



#### Curriculum Vitae

1983.3

1983.4

Graduated from Yokohama City University, Bachelor of Commerce Entered The Fukui Bank, Ltd. Manager, Iizuka Branch (Fukui City) Manager, Takatsuki Branch (Osaka Pref.) Manager, Sabae Branch (Fukui Pref.)

2010.6 Entered Yoshida Industry Co., Ltd. Inaugurated as Director & Sales Manager Fukui Prefecture's eyeglass frame industry, a prefectural mainstay industry accounting for approximately 95% of domestic eyeglass frame production, is under severe pressure from low-priced foreign imports. Titanium is used in many eyeglass frame components but is a difficult material to process. Many business enterprises are planning to enter the medical field by applying this precision machining technology for titanium, which as a highly biocompatible material is also used in many medical components. The presentation will profile the efforts of Yoshida Industry, which entered the medical field approximately 20 years ago, to build the internal structure required for

Lecture 3

## Product Development Efforts and an Introduction to **Multifunction Forceps for Endoscopic Surgery**

Speaker

Tsuneyoshi Suzuki Chairman & CEO, Suzuki Precion Co., Ltd.



#### Curriculum Vitae

1949 1967

1970

1991 2010-present Born in Kanuma City, Tochigi Pref. Employed by Tochigi Sogo Bank, Ltd. (present-day The Tochigi Bank, Ltd.) for three years Entered Suzuki Precision Devices LLC (present-day Suzuki Precion Co., Ltd.) President & CEO, Suzuki Precion Co., Ltd. Chairman & CEO, Suzuki Precion Co., Ltd.

- · Named as one of "300 Thriving Manufacturing Companies" by METI
- · Received the Tochigi Prefecture Active Industry Award from Tochigi Pref.
- · 2012, Received Encouragement Award at the MEDTEC Japan Innovation Awards
- · 2012, Received Japan Brand Award at the "Super" Manufacturing Parts Grand Awards
- 2013. Received Minister's Award at the Manufacturing Nippon Grand Awards from METI

Suzuki Precion was formerly engaged principally in the manufacture of components for motor sports and precision grinding components for semiconductor manufacturing devices. However, in 2005 it began to apply its core technologies of titanium alloy and miniaturized component processing to the development of medical devices, and put in place structures for product design, approval, and sales. The presentation will include perspectives on the experience gained from entering the medical device industry, as well as an introduction to the SP Ashura multifunction forceps for endoscopic surgery, the SP Asister N three mm-diameter forceps, and other medical device products developed by the company.

#### Lecture 4

# University Cluster Formation through Bringing Together Medical Welfare Devices in Fukushima Prefecture

## Speaker

#### **Ken Ichiryu** Fukushima Pref. Medical & Welfare Device Promo Vice President, Kikuchi Manufacturing Co., Ltd.



#### Curriculum Vitae

1959 Graduated in Mechanical Engineering from Nagoya University1981 Entered Hitachi Research Laboratory, Hitachi, Ltd.

Received PhD from Nagoya University

1986 Principal Researcher, Technical Research Laboratory, Hitachi
 Construction Machinery Co., Ltd.
 1996 Professor, Mechanical Control Department, Tokyo University

of Technology

Director, Research Laboratory, Kikuchi Manufacturing Co., Ltd. Vice President, Kikuchi Manufacturing Co., Ltd.

· JSME Award, Fluid Power Society Award

Fukushima Prefecture is promoting the next-generation basic industry through the formation of medical welfare business clusters. Kikuchi Manufacturing is also responding to this initiative by developing robots and medical welfare devices through collaboration with universities. At our production facility in Minamisoma, the company is contributing to recovery through the formation of a university research cluster, which consists of three groups. Group 1 is a Fukushima Prefecture Disaster Response Robot Industry Cluster support enterprise consisting of a four-armed robot developed by Waseda University, a helicopter with power generator developed by Chiba University, and a disaster evacuation assistance robot developed by Tokyo University. Group 2 is pursuing a range of research themes in support of the Fukushima Medical Welfare Project, while Group 3 is a cluster of other universities with associated research organizations. The projects being pursued by these groups in the university cluster should be an effective method for attracting young researchers, as well as promoting economic revitalization of disaster-struck regions if these products can be placed into production.

tries as well as medical and health care professionals.

Integrated support from the Pharma Valley Center.

Backup for partner companies from full-time lab managers.

## Pharma Valley Project New Base Facilities

