#### To OCU international students:

You can attend this international symposium free of charge.

In order to attend the symposium, please email at sympo@sci.osaka-cu.ac.jp with the subject name: Overseas student". Required details are: your name, nationality, the graduate or undergraduate course you are enrolled in, and the day(s) of the symposium program you want to attend.

Moritoshi Iino

Director, Botanical Gardens of Osaka City University

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# 2017 Osaka City University International Symposium Symbiosis of People and Plants for the Future of the City

June 10 - 11, 2017 | Osaka, Japan

# **Conference venues:**

Tanaka Memorial Hall, Osaka City University (June 10) Lecture Hall, Osaka Museum of Natural History, Nagai Park (June 11)

# **Program**

#### Lectures

June 10, Tanaka Memorial Hall, Osaka City University

9:30-9:35

Introduction: Moritoshi IINO (Director, Botanical Gardens of Osaka City University)

9:35-9:45

Opening Address:

Tetsuo ARAKAWA (President, Osaka City University)

9:45-10:25

Plants, People and Potentials: Barrie SHELTON (Honorary Associate Professor, University of Sidney)

10:25 - 11:05

Urban Design with Green: Koichi KANA (Professor, Graduate School of Engineering, Osaka City University)



11:05 - 11:45

Thermal Environment Created by Tree Shade in the Pedestrian Spaces: Minako NABESHIMA (Associate Professor, Graduate School of Engineering, Osaka City University)

11:45 - 12:40 Lunch

12:40 - 13:20

History of the Padova University Botanic Garden, the Most Ancient in the World: Barbara BALDAN (Professor, Department of Biology, Padova University; Director, Padova University Botanic Garden)

13:20 - 14:00

The Development of New Botanic Gardens in Indonesia: Conserving the Plant Diversity and Empowering the Community: Didik WIDYATMOKO (Director, Bogor Botanic Gardens)

14:00 - 14:40

Singapore: Garden City to City in a Garden and Beyond Shawn LUM (Senior Lecturer, Asian School of the Environment, Nanyang Technological University)

14:40 – 15:00 Coffee Break

15:00 – 15:40

Fatigue and Anti-fatigue Science with Green Innovation: Yasuyoshi WATANABE (Center Director, RIKEN Center for Life Science Technologies; Director, Osaka City University Center for Health Science Innovation)

15:40 - 16:20

Greening of Osaka: Future and University's Role: Moritoshi IINO (Professor, Graduate School of Science, Osaka City University; Director, Botanical Gardens of Osaka City University)

16:20 - 16:30

Closing Address: Hiroyuki SAKURAGI (Vice-President, Osaka City University)

### Workshop

# June 11, Lecture Room, Osaka Museum of Natural History

10:00 - 10:05

Opening Address: Kazumi TANIDA (Director, Osaka Museum of Natural History)

# Part 1: Learning from the history of forests and plant biodiversity

Chairperson: Hiroshi TOBE (Professor Emeritus, Kyoto University)

10:05 - 10:10

Purpose of the session: Hiroshi TOBE

10:10-10:30

Forest History in the Japanese Islands Based on Plant Fossil Evidences: Arata MOMOHARA (Professor, Graduate School of Horticulture, Chiba University)

10:30-10:50

History of Woodland - What We Can Trace in Their Biodiversity : Daisuke SAKUMA (Vice Director of Curatorial Department, Osaka Museum of Natural History)

10:50 - 11:10

Species and phylogenetic diversity and biodiversity conservation of global, Asian and Japanese forests: Akira ITOH (Professor, Graduate School of Science, Osaka City University)

11:10 - 11:30 Coffee Break

11:30 - 11:50

Managing, Protecting, and Enhancing Singapore's Diversity Shawn LUM (Senior Lecturer, Asian School of the Environment, Nanyang Technological University, Singapore)

11:50 - 12:10

The Conservation of Plant Diversity in Indonesia : Didik WIDYATMOKO (Director, Bogor Botanic Gardens)

12:10-12:30

The Indispensable Biodiversity: Responsibility of Botanic Garden In the City: Atsushi KUYAMA (Director, Sakuya Konohana Kan, Botanical Garden)

12:30 -12:50

Biodiversity and the Future of Cities: Masahiro KATO (Research Emeritus, National Museum of Nature and Science)

12:50 –13:00 Discussion 13:00 – 14:00 Lunch

### Part 2: Learning from cultural creativity

Chairperson: Hiroshi OKANO (Professor, Urban Research Plaza and Graduate School of Business)

14:00 - 14:10

Purpose of the session: Hiroshi OKANO

14:10 - 14:30

Redwood in Zurich: Integration of Exotic Trees into Urban Environments: Hans Thomsen (Professor, School of Art, Zurich University)

14:30 - 14:50

Using Plants to Control Sandstorm is Currently the Best Choice for Mankind: MA Yuming(Professor, University of Inner Mongolia Agriculture University), PAN Shanhai (Adjunct Associate Professor, Osaka City University)

14:50 - 15:10

Mystery: a New Painting Thinking and Performance: LI Geng (Professor, Kyoto University of Art & Design)

15:10 - 15:30 Coffee Break

15:30 - 15:55

Metasequoia / Wild Cherry Tree Guitar: Masashi TAKEDA (President, Dolphin Guitars), Masaaki SHIOZAKI (Director, M Shiozaki String Company), Kenji SUGITA(Director, Sugi Craft Co.), Hiroshi SANO (Head of Factory, Terada Musical Instrument Co.)

15:55 - 16:15

Developing a Violin of Cedar Planted in Nara Prefecture: Maiko ARIYAMA (Chief Researcher, Nara Forest Research Center)

16:15-16:35

Craft Beer Which Is Becoming a Hot Topic Now: Ai TANI (President, Craft Beer Base)

16:35 - 16:45 Discussion

# Introduction of the symposium

The occurrence of large cities, especially of megacities (urban areas with a population of more than ten million) is a very recent phenomenon in human history. The form of city's ecosphere, an ecosphere made by humans for the living of humans, is very much in the process of experimental development. In city planning, constructions of buildings and infrastructures have been the major issues, with supplemental consideration of green areas (parks, roadside trees, etc.). The extent of green areas was influenced by

administrative decisions. For example, Tokyo, the largest megacity of the world, has the lowest green coverage. On the other hand, major cities of England, including London, have never developed into megacities and have kept relatively high green coverage, in spite of the fact that the industrial revolution began from this country. This difference was probably caused by the garden city idea of the English sociologist Ebenezer Howard (1850-1928).

Thanks to the contribution of urban engineering, we are now capable of living "comfortable" life in large cities. However, it is also evident that living in large cities imposes various kinds of stress on citizens. If city construction continues in Tokyo and Osaka as it is now, problems such as the heat island phenomenon will become more and more serious and our urban life will become far more stressful. In future city planning, natural and medical sciences are expected to play key roles. For example, natural science will provide useful knowledge on how green areas should be planned and medical science will provide basic knowledge on the physical relationship between plants and humans. City development has been influenced by local geography and climate. This aspect of city development, based on geographic and social sciences, will remain important in creation of city diversity. Progresses made in various academic fields will influence city planning processes beyond our expectations. The city is a man-made, non-universal ecosystem and, powered by academic progresses, could evolve into a much different form.

In this symposium, we provide multifaceted discussion on the roles for plants in cities and on the relationships between humans and plants. From invited oversea researchers we will learn the situation in other countries and the functions of botanical gardens for urban activities. We hope that this symposium leads to the establishment of a think tank in Osaka City University that studies greening and environmental policies.

# Moritoshi lino Chair, 2017 Osaka City University international symposium organization committee

