

June 16, 2014 Mitsui Chemicals, Inc.

## Winners of the "2014 Mitsui Chemicals Catalysis Science Award"

Mitsui Chemicals, Inc. (Tsutomu Tannowa, President & CEO) is pleased to announce the winners of the "2014 Mitsui Chemicals Catalysis Science Awards" and the "Mitsui Chemicals Catalysis Science Award of Encouragement".

Established in 2004, this award aims to contribute to the sustainable development of chemistry and the chemical industry by recognizing researchers who have outstanding achievements in catalysis science. The first winners were awarded in March 2005.

The awards will be presented on October 14th at the "Fourth CSJ Chemistry Festa 2014" which will be held at the Tower Hall Funabori in Edogawa-ku, Tokyo and followed by commemorative lectures by the winners.

## Winner of the "2014 Mitsui Chemicals Catalysis Science Award"





# Winners of the "2014 Mitsui Chemicals Catalysis Science Award of Encouragement"

Associate Professor Shunsuke Chiba Nanyang Technological University, Singapore	Chief Researcher Naoya Kumagai Institute of Microbial Chemistry, Japan

## Winner of the "2014 Mitsui Chemicals Catalysis Science Award"

# Professor F. Dean Toste

University of California Berkeley, U.S.A. Born in 1971

"Introduction of Concepts and Catalysts for Organic Synthesis, including those based on Homogeneous Gold Catalysis and Chiral Anion Catalysis"

Professor Toste has pioneered the development of novel catalysts with gold complexes, high-valent metal oxides, and chiral counteranions including: (a) homogeneous low-valent gold catalysts; (b) high-valent metal oxide catalysts; and (c) chiral counteranion-assisted asymmetric metal-free phase-transfer catalysis. More recently he has developed metal catalyst-fermentation hybrid processes for the synthesis of biofuels and chemicals from biomass.

# Winners of the "2014 Mitsui Chemicals Catalysis Science Award of Encouragement"

# Associate Professor Shunsuke Chiba Nanyang Technological University, Singapore Born in 1978

"Development of Single-Electron-Transfer Redox Catalytic Systems for Synthesis of Azaheterocycles"

Dr. Chiba has developed unique molecular transformations based on single-electron-transfer oxidation-reduction (redox) in the copper-catalyzed aerobic oxidation and in the manganese-catalyzed radical reactions and thereby paved a way to synthesize azaheterocycles, a family of nitrogen-containing heterocyclic compounds that are widely used in medicine, agriculture, and materials science.

# Chief Researcher Naoya Kumagai Institute of Microbial Chemistry, Japan Born in 1978

"Development of Cooperative Asymmetric Catalysts and their Application to the Streamlined Enantioselective Synthesis of Pharmaceuticals"

Dr. Kumagai has developed novel cooperative asymmetric catalysts with soft Lewis acid/hard Brönsted base and rare earth metal/hydrogen-bonding ligand combinations and thereby achieved the highly efficient enantioselective synthesis of a variety of pharmaceuticals and related chemicals.

# Award ceremony and lectures by the winners

1. Date: October 14, 2014

2. Venue: Tower Hall Funabori (Edogawa-ku, Tokyo, Japan)

3. Lectures:

#### **Plenary Lectures**

Professor Keiji Maruoka (Kyoto University, Japan)

Dr. Kazuhiko Sato (National Institute of Advanced Industrial Science and Technology)

### Commemorative lectures by the winners

2014 Mitsui Chemicals Catalysis Science Award

**Professor F. Dean Toste** (University of California Berkeley, U.S.A.)

2014 Mitsui Chemicals Catalysis Science Award of Encouragement

Associate Professor Shunsuke Chiba (Nanyang Technological University, Singapore)

Dr. Naoya Kumagai (Institute of Microbial Chemistry, Japan)