14th Japanese-American Frontiers of Science (JAFoS) Symposium

U.S. National Academy of Sciences (NAS)
and
Japan Society for the Promotion of Science (JSPS)

Hotel New Otani, Tokyo, Japan
December 4-7, 2014

= Program =

**Thursday, December 4, 2014**

Afternoon  Shuttle Buses
(from Narita/Haneda International Airport to Hotel New Otani)
Check in and Registration

7:00 p.m.  Welcome Reception
8:00 p.m.  Dinner (Banquet Hall "Suiho", Garden Tower Banquet Floor)

**Friday, December 5, 2014**

7:00 a.m.  Breakfast
• SATSUKI (Lobby Floor, The Main)
• Top of the Tower (40th Floor, Garden Tower)
• Garden Lounge (Lobby Floor, Garden Tower)
• Kioi Nadaman (Lobby Floor, Garden Tower)

9:00 a.m.  Opening Session
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)
Yuichiro Anzai, President, JSPS
Edward Patte, Director, Kavli Frontiers of Science, NAS
Toshihiko Hosoya, Planning Group Co-chair
Joy K. Ward, Planning Group Co-chair

9:30 a.m.  Session I:  
**Climate Change and Food Security**
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)
PGMs: David McNear and Yusuke Yokoyama
Chair: Jennifer Anne Burney, University of California, San Diego
Speakers: Marshall Burke, Stanford University
Kiyoshi Takahashi, The National Institute for Environmental Studies

11:30 a.m.  Photo session
11:45 a.m.  Lunch (Banquet Hall "Orizuru Yu", The Main Bldg. Arcade Floor)
1:00 p.m.  **Session II:**  
*Cells in Computers*  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)  
PGMs: Joy K. Ward and Kazuhiro Maeshima  
Chair: Akira Funahashi, Keio University  
Speakers: Jonathan Karr, Mount Sinai Hospital  
Koichi Takahashi, RIKEN

3:00 p.m.  **Flash Poster Talks I << Odd numbers>>**  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)

3:30 p.m.  **Poster Session I << Odd numbers>>**  
(Waiting Room of “Orizuru Mai”)

5:00 p.m.  **Session III:**  
*Metrology and Standards*  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)  
PGMs: Emilia Morosan and Kensuke Kobayashi  
Chair: Mark Keller, U.S. National Institute of Standards and Technology (NIST)  
Speakers: Naoki Kuramoto, National Institute of Advanced Industrial Science and Technology (AIST)  
Jon R. Pratt, U.S. National Institute of Standards and Technology (NIST)

7:00 p.m.  Dinner  
(Banquet Hall "Sirius", Garden Court Banquet Floor)  
−9:00 p.m.

**Saturday, December 6, 2014**

7:00 a.m.  Breakfast  
- SATSUKI (Lobby Floor, The Main)  
- Top of the Tower (40th Floor, Garden Tower)  
- Garden Lounge (Lobby Floor, Garden Tower)  
- Kioi Nadaman (Lobby Floor, Garden Tower)

8:30 a.m.  **Session IV:**  
*Biomimickry/Biomimetics*  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)  
PGMs: LaShanda Korley and Shinya Yoshioka  
Chair: Mathias Kolle, Massachusetts Institute of Technology  
Speakers: Kaori Kamata, Tokyo Institute of Technology  
Jeffrey Karp, Harvard Medical School / Brigham Women’s Hospital

10:30 a.m.  Coffee Break  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)

11:00 a.m.  **Session V:**  
*The Metabolism of Cities: Energy, Scalability and Well-Being*  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)  
PGMs: Peter Dodds and Daiji Kawaguchi  
Chair: Yasuhiro Sato, Osaka University  
Speakers: Luis Bettencourt, Santa Fe Institute  
Kentaro Nakajima, Tohoku University
1:00 p.m. Lunch (Banquet Hall "Suiho", Garden Tower Banquet Floor)
   << PGM Meeting (LAPIS 1, The Main Bldg. 16F)>>
   (only for PGMs for the 15th JAFoS)

2:30 p.m. Cultural tour incl. Dinner
   – 9:00 p.m.

Sunday, December 7, 2014
7:00 a.m. Breakfast
   • SATSUKI (Lobby Floor, The Main)
   • Top of the Tower (40th Floor, Garden Tower)
   • Garden Lounge (Lobby Floor, Garden Tower)
   • Kioi Nadaman (Lobby Floor, Garden Tower)

8:30 a.m. Session VI:
   Origami: Paper Folding and Its Generalization
   (Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)
   PGMs: Sebastien Laahaie and Kazuhisa Makino
   Chair: Ryuhei Uehara, Japan Advanced Institute of Science and Technology (JAIST)
   Speakers: Thomas Hull, Western New England University
   Tomohiro Tachi, The University of Tokyo

10:30 a.m. Flash Poster Talks II << Even numbers>>
   (Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)

11:00 a.m. Poster Session II <<Even numbers>>
   (Waiting Room of “Orizuru Mai”)

12:30 p.m. Lunch (Banquet Hall "Orizuru Yu", The Main Bldg. Arcade Floor)
   << PGM Meeting (LAPIS 1, The Main Bldg. 16F)>>
   (only for PGMs for the 15th JAFoS)

2:00 p.m. Session VII:
   Advanced Chemical Imaging
   – Molecular Imaging Probes & BioPhotonics
   (Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)
   PGMs: Jacob Hooker and Miya Ishihara
   Chair: Etsuko Kiyokawa, Kanazawa Medical University
   Speakers: Masaru Ishii, Osaka University
   Alan Pradipl Jasanoff, Massachusetts Institute of Technology

4:00 p.m. Coffee Break

4:30 p.m. Session VIII:
   Human Microbiome – Links to Health and Disease
   (Banquet Hall "Orizuru Mai", The Main Bldg. Arcade Floor)
   PGMs: Gonzalo Torres and Toshihiko Hosoya
   Chair: Dan Knights, University of Minnesota
   Speakers: Laura M. Cox, New York University Langone Medical Center
   Shinji Fukuda, Keio University
6:30 p.m.  Closing Session  
(Banquet Hall “Orizuru Mai”, The Main Bldg. Arcade Floor)  
Toshihiko Hosoya, PGM Co-chair  
Joy K. Ward, PGM Co-chair  
Shigeo Koyasu, chair of JSPS FoS Advisory Board

7:00 p.m.  Dinner (Banquet Hall "Suiho", Garden Tower Banquet Floor)  
-9:00 p.m.

Monday, December 8, 2014

7:00 a.m.  Breakfast  
• SATSUKI (Lobby Floor, The Main)  
• Top of the Tower (40th Floor, Garden Tower)  
• Garden Lounge (Lobby Floor, Garden Tower)  
• Kioi NadaMan (Lobby Floor, Garden Tower)

Morning Shuttle Buses  
(to be announced)

(from Hotel New Otani to Narita/Haneda International Airport)  
(available only for the US participants)