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# Preface: The Irago Conference 2014: A 360 Degree Outlook at Critical Scientific and Technological Challenges for a Sustainable Society **FREE**

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## Preface

### **The Irago Conference 2014: A 360 degree outlook at critical scientific and technological challenges for a sustainable society**

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The Irago Conference 2014 was held 6–7 November 2014 at the National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan. The Conference was organized jointly by the Electronics-Inspired Interdisciplinary Research Institute (EIIRIS) at Toyohashi University of Technology and AIST. The major goal of the conference is to enhance mutual understanding between scientists, engineers and policymakers. Highlighting the increasing awareness for an interdisciplinary approach to research, Irago 2014 attracted approximately 200 participants in the one and a half day meeting.

One of the most anticipated speakers was Dr Chiaki Mukai, Japan Aerospace Exploration Agency (JAXA), Japan, who shared her experiences of space flight and insights into "Space medicine is the ultimate preventive medicine".

Highlights of the conference related to advances in life sciences included talks by: Professor Roger Reddel, University of Sydney, Australia, on "Telomeres: Opportunities for Targeted Cancer Therapies"; Makoto Asashima, AIST, Japan, "A simplified view of the complexity of cell stemness, development and differentiation"; Anne L. Plant, National Institute of Standards and Technology, USA, "Measurement of Biological Activity of Cells: Challenges for research and manufacturing"; Joanna Groden, Ohio State University, USA, "Inherited Susceptibility to Cancer: Lessons in Cancer Biology"; Shivendra Singh, University of Pittsburgh Cancer Institute, USA, "Naturally GREEN Cancer Chemoprevention"; Renu Wadhwa, AIST, Japan, "Indian Ayurvedic Herb-Ashwagandha for Cancer Treatment"; Yoshihiro Ohmiya, AIST, Japan, "Mystery of Bioluminescence"; Chae-Ok Yun, Hanyang University, Korea, "Adenovirus/Nanomaterial Complex for Cancer Gene Therapy".

More general topics, such as interdisciplinary research and national projects, were covered by speakers including Ryoji Chubachi, Director of AIST, Japan, "Electronics-Inspired Strategies for Basic and Applied Research"; Makoto Ishida, Toyohashi University of Technology, Japan, "Interdisciplinary Research at EIIRIS"; T. Madhan Mohan, Department of Biotechnology, India, "Merger of Biotechnology and Bioinformatics" — "Strategic development by the Department of Biotechnology, Government of India"; Listyani Wijayanti, Agency for the Assessment and Application of Technology, Indonesia, "Current Status of Biotechnology in Indonesia"; Shin-ichi Yamamoto, Okayama University, Japan, "Development of Interdisciplinary Sciences at Okayama University — Progress, Trend and Future Prospect".

Experts in fields of research not related to medicine and the life sciences included: Yasuhiro Iwasawa, University of Electro-Communications, Japan, "Intriguing insights into how catalysts behave in automobile fuel cells by advanced XAFS techniques"; Hideki Komatsu, Bridgestone Corporation, Japan, "Tire Technology for the Future"; Jian-Ren Shen, Okayama University, Japan, "An approach to clean, renewable energy source — Water oxidation by a natural catalyst photosystem II".

The Graduate Student Session was held during the lunch break on 7 November 2014, with members of the audience given the task of selecting the best student speaker.

The Irago Conference 2015 is scheduled for 22-23 October 2015 at the Irago Sea-Park & Spa Hotel, Tahara City, Japan.

Information about previous Irago Conferences

The Irago Conference website: <http://www.iragoconference.jp/index.html>



# The Irago Conference 2014

**Interdisciplinary Research And Global Outlook**

Organized by The National Institute of Advanced Industrial Science and Technology (AIST), Japan and Electronics-Inspired Interdisciplinary Research Institute (EIIRIS), Toyohashi University of Technology

*"360 degree outlook on critical scientific and technological challenges for a sustainable society"*

**NOV 6-7th 2014**  
AIST, Tsukuba-city, Ibaraki, Japan