

Program

DAY 1: Wednesday, February 24, 2010

8:50 ~ 9:00	Opening Remarks
Oral Session 1	9:00 - 11:00 < Plasmon Sensor >
	Chair : Kaoru Tamada (Tohoku University, Japan)
9:00 ~ 9:30 [O1-1]	“Resonant light scattering imaging of protein functionalized gold nanoparticle in a biological cell” Kazuhiko Fujiwara , Yusuke Yatsurugi, Kentaro Sato, Sou Yamamoto, Hideaki Itoh, Nobuaki Ogawa <i>Akita University, Japan</i>
9:30 ~ 10:00 [O1-2]	“Characterization of electrodeposited gold and palladium nanowire gratings with optical diffraction measurements” Naoya Nishi , Aaron R. Halpern, Robert M. Corn <i>Kyoto University, Japan</i>
10:00 ~ 10:30 [O1-3]	“Versatile routes to the fabrication of plasmonic nanostructures via block copolymer nanotemplates” Yoon Hee Jang, Min-Ah Cha, Ji Yong Lee, Yu Jin Jang, Jieun Lee, Juyon Lee, Saji Thomas Kochuveedu, Dong Ha Kim <i>Ewha Womans University, Korea</i>
10:30 ~ 11:00 [O1-4]	“Interrogating biomolecular interactions using SPR and LSPR” Xiaodi Su , Yen Nee Tan, Roejarek Kanjanawarut <i>Institute of Materials Research and Engineering, Singapore</i>
11:00 ~ 11:20	Break
Oral Session 2	11:20 - 12:10 < Advanced Medical Therapeutic Ultrasound >
	Chair : Hans Torp (Norwegian University of Science and Technology, Norway)
11:20 ~ 11:50 [O2-1]	“Focused ultrasound treatment enhanced by microbubbles and their tissue-selective precursors” Shin-ichiro Umemura , Shin Yoshizawa, Ken-ichi Kawabata <i>Tohoku University, Japan</i>
11:50 ~ 12:10 [O2-2]	“Targeted gene delivery using nanobubble and ultrasound” Sachiko Horie , Yukiko Watanabe, Rui Chen, Shiro Mori, Yasuhiro Matsumura, Tetsuya Kodama <i>Tohoku University, Japan</i>
12:10 ~ 13:10	Lunch
13:10 ~ 13:55	Poster Session I
13:55 ~ 14:40	Poster Session II
Oral Session 3	14:40 - 16:10 < Human-Oriented Technologies via Biomedical Sciences >
	Chair : Ayumi Hirano-Iwata (Tohoku University, Japan)
14:40 ~ 15:10 [O3-1]	“Developing high throughput experimental workflow to identify targets downstream of Egr-1 activation in the mouse hippocampus” Abdul Karim Sesay <i>MRC National Institute for Medical Research, UK</i>
15:10 ~ 15:40 [O3-2]	“Function prediction of uncharacterized genes and proteins” Kengo Kinoshita <i>Tohoku University, Japan</i>
15:40 ~ 16:10 [O3-3]	“Estimation of blood pressure variability from the temporal difference in the instantaneous phase between electrocardiogram and photoplethysmogram signals” Norihiro Sugita , Makoto Yoshizawa, Masayuki Murakoshi, Makoto Abe, Noriyasu Homma, Tomoyuki Yambe, Shin-ichi Nitta <i>Tohoku University, Japan</i>
16:10 ~ 16:30	Break
Oral Session 4	16:30 - 18:00 < Advanced Medical Diagnostic Ultrasound >
	Chair : Hiroshi Kanai (Tohoku University, Japan)
16:30 ~ 17:00 [O4-1]	“Artery-wall elasticity imaging with ultrasound” Hideyuki Hasegawa , Hiroshi Kanai <i>Tohoku University, Japan</i>
17:00 ~ 17:30 [O4-2]	“Ultrasound technology for 3D imaging of the heart” Hans Torp <i>Norwegian University of Science and Technology, Norway</i>
17:30 ~ 18:00 [O4-3]	“High frequency ultrasound and acoustic microscopy” Yoshifumi Saijo , Kazuto Kobayashi, Naohiro Hozumi, Hideki Tanoue, Kazutoshi Kumagai, Hideyuki Koike, Minami Ogawa, Kenji Yasui <i>Tohoku University, Japan</i>
18:20 ~ 20:20	Banquet

DAY 2: Thursday, February 25, 2010

Oral Session 5 9:00 - 10:40 < Hollow-Optical Fibers for Medical Applications >

Chair : Yuji Matsuura (Tohoku University, Japan)

- 9:00 ~ 9:30 [O5-1] “Thermal imaging bundles for medical applications”
James A. Harrington, Israel Gannot
Rutgers University, USA
- 9:30 ~ 10:00 [O5-2] “Transmission properties of dielectric-coated hollow optical fibers based on silver-cladding-stainless pipe”
Katsumasa Iwai, Akihito Hongo, Hiroyuki Takaku, Mitsunobu Miyagi, Jun-ichi Ishiyama, Yi-Wei Shi, Yuji Matsuura
Sendai National College of Technology, Japan
- 10:00 ~ 10:20 [O5-3] “A raman cell based on hollow optical fibers for breath analysis”
Yoshinari Okita, Takashi Katagiri, Yuji Matsuura
Tohoku University, Japan
- 10:20 ~ 10:40 [O5-4] “Dental tissue ablation with Ho:YAG, Er:YAG and CO₂ lasers”
Tomonori Watanabe, Yuji Matsuura
Tohoku University, Japan

10:40 ~ 11:00 **Break**

Oral Session 6 11:00 - 12:40 < Motion Management for Radiation Therapy >

Chair : Noriyasu Homma (Tohoku University, Japan)

- 11:00 ~ 11:10 Opening Remarks: “The state-of-the-art in motion management for radiation therapy”
Yoshihiro Takai
Tohoku University, Japan
- 11:10 ~ 11:40 [O6-1] “Real-time 4D-adaptive radiotherapy for moving and deforming tumors”
Amit Sawant
Stanford University, USA
- 11:40 ~ 12:10 [O6-2] “Basics of real-time tumor tracking radiotherapy (RTRT) and development of a next generation RTRT”
Naoki Miyamoto, Masayori Ishikawa, Kenneth Sutherland, Bengua Gerard, Ryusuke Suzuki, Shinichi Shimizu, Rikiya Onimaru, Hidefumi Aoyama, Hiroki Shirato
Hokkaido University, Japan
- 12:10 ~ 12:40 [O6-3] “Prediction methods of unsteady periodic tumour motion for radiotherapy”
Masao Sakai, Kei Ichiji, Noriyasu Homma, Yoshihiro Takai, Makoto Yoshizawa
Tohoku University, Japan

12:40 ~ 13:40 **Lunch**

13:40 ~ 14:25 **Poster Session I**

14:25 ~ 15:10 **Poster Session II**

Special Talk

- 15:10 ~ 15:40 “Scientific misconduct: the good, the bad, and the ugly”
James A. Harrington
Rutgers University, USA

Oral Session 7 15:40 - 17:10 < Nano-Electronics >

Chair : Masashi Sahashi (Tohoku University, Japan)

- 15:40 ~ 16:10 [O7-1] “Spintronics and electronics across a single atom”
Jason N. Armstrong, Matthew R. Sullivan, Susan Z. Hua, **Harsh Deep Chopra**
State University of New York, Buffalo, USA
- 16:10 ~ 16:40 [O7-2] “MgO-based magnetic tunnel junctions for STT-RAM”
Kyung-Ho Shin, **Byoung-Chul Min**
KIST, Korea
- 16:40 ~ 17:10 [O7-3] “Current-induced dynamics of a geometrically confined domain wall and its application as a microwave oscillator”
Hiroshi Imamura, Katsuyoshi Matsushita, Jun Sato
AIST, Japan
- 17:10 ~ 17:20 **Closing Remarks**