We are looking forward to seeing you at the conference!
ICAST 2014 Organizing Committee

3rd INTERNATIONAL CONFERENCE ON ANALYTICAL SCIENCE & TECHNOLOGY

20-21 November, Daejeon, Korea

THIRD CIRCULAR – Invitation

The 3rd International Conference on Analytical Science and Technology(ICAST) is just a month away, and we hope you're all looking forward to it as much as we are in Daejeon. This circular will provide, we hope, most of the information you will need about the conference. If you have any questions that aren't answered by this circular, then please contact the organizers via email : mercurien@kbsi.re.kr

Topics

Metabolomics	Metabolomics in human disease
	Metabolomics in nutrition and food
	Plant metabolomics
Imaging Analysis	Imaging science from cell to molecule
	Technical advances on imaging instrumentation
	Ultrastructural analysis of cell function
Omics & Imaging	Functional proteomics in crop science
	Effective vaccines development
	Cell-based imaging in drug discovery
Protein MS (Mass Spectrometry)	Middle-down ECD
	Histone PTM analysis
Brain Science	Brain, from molecule to consciousness
Protein NMR	Structural dynamics of biomolecules
	Structure-functional relationship of proteins
	NMR spectroscopy in solution
Geosciences	Isotope geochemistry using *in situ* micro-beam techniques
	Application of *in situ* micro-beam techniques
ECR Ion Beam Injector & Accelerator	State-of-the art of ion source
	Ion beam application
	Application on accelerator based system

Plenary Speakers

Prof. John Yates

Scripps Research Institute

USA

Prof. Jeremy Nicholson

Imperial College London

UK

Prof. Mark S. Cohen

University of California, Los Angeles

USA

Prof. Byeon-Gak Choi

Seoul National University

KOR

Schedule

Day 1/2 - 20 November (Thursday)

10:00 ~ 10:10	**Opening** (Hall)	
10:10 ~ 10:50	**Plenary Lecture 1** (Hall) Prof. John Yates (The Scripps Research Institute) *From Yeast to Brain : Disruption in Protein Analysis Technologies*	
10:50 ~ 11:00	Break	
11:00 ~ 12:40	**Session 1** (Hall) **– Metabolomics** Prof. Carolyn Slupsky (UC Davis) *Shaping Infant Health through Milk* Prof. Kazuki Saito (RIKEN) *Plant metabolomic – development and application* Prof. Kyoung Heon Kim (Korea Univ.) *Discovery of a novel metabolic pathway of 3,6-anhydro-L-galactose in a marine bacterium using metabolome and transcriptome analyses* Dr. Jee Youn Jung (KIOM) *Metabolomics: toward a platform with full metabolome coverage and understanding Traditional Korean Medicine*	**Session 2** (Session Room) **– Protein MS** Dr. Sonja Hess (Caltech) *Middle-down ECD and ETD approaches for histone analyses* Prof. Myeong Hee Moon (Yonsei Univ.) *A New On-line Quantitative Method for Glycoproteins Using Isotope-Coded Carbamidomethylation* Prof. Han Bin Oh (Sogang Univ.) *Radical-driven peptide fragmentations* Dr. Jong Shin Yoo (KBSI) *Automated Identification and Quantification of Site Specific N-Glycoproteins in Human Plasma*
12:40 ~ 13:40	**Lunch**	
13:40 ~ 14:20	**Plenary Lecture 2** (Hall) Prof. Jeremy Nicholson (Imperial College London) *Molecular Phenotyping and Systems Medicine Approaches in Personalised and Public Healthcare*	
14:20 ~ 15:00	**Plenary Lecture 3** (Hall) Prof. Mark S. Cohen (UCLA) *Multimodal Imaging in Neuroscience*	
15:00 ~ 15:10	Break	

(Continued)

15:10 ~ 16:50	**Session 3 (Hall)** **– Imaging Analysis** Prof. Mitsuo Ikebe (UTHCT) *Structure and regulation of the MYTH/FERM myosin* Prof. Kazuyoshi Murata (NIPS) *Structural analysis in virus infection using single particle cryo-electron tomography* Prof. Soon Jo Kwon (Inha Univ.) *Effects of Physical Denudation and Compressive Stress on Airway Remodelling* Dr. Sacha De Carlo (FEI Company) *Direct Electron Detectors: The Resolution Revolution Leaders*	**Session 4 (Session Room)** **– Brain Structure and Function** Prof. Doo Yeon Kim (Harvard Med. School) *A three-dimensional human neural cell culture model of Alzheimer's disease* Dr. Kea Joo Lee (KBRI) *Motor learning-induced synapse remodeling in the cerebellum* Dr. Heh In Im (KIST) *Chronic stress induced microRNA-132 in nucleus accumbens core mediates cocaine reward* Prof. Jin Hun Sohn (CNU) *Neural Connectivity in the Brain While Seeing Sexual Arousal Pictures : A Dynamic Causal Modeling*
16:50 ~ 17:00	Break	
17:00 ~ 18:40	**Session 5 (Hall)** **– Omics & Imaging** Prof. Setsuko Komatsu (NICS) *'Omics' technique to identify the mechanism of flooding response in Soybean* Prof. Sang Moo Kang (Georgia State Univ.) *Concepts, proteomics, and immunology of Virus-like Particle vaccines* Prof. Joon Myong Song (SNU) *High-content Cellular Imaging for Cell-based Drug Screening*	**Session 6 (Session Room)** **– Protein NMR** Dr. Takanori Kigawa (RIKEN) *Protein dynamics in molecular crowding environment analyzed by stable isotope-aided NMR spectroscopy* Dr. Tai-Huang Huang (IBMS) *Intrinsic disorder and Poly-SUMO Chain Recognition by RNF4-SIMs Domain* Dr. Byong Seok Choi (KAIST) *Structural and dynamics studies of the influenza A virus RNA and recognition mechanism by RIG-I* Prof. Bong Jin Lee (SNU) *Structural analysis of hypothetical proteins from Helicobacter pylori : an approach to estimate functions of unknown or hypothetical proteins*
18:40 ~ 20:40	**Conference Dinner**	

Day 2/2 - 21 November (Friday)

10:00 ~ 10:40	**Plenary Lecture 4** (Hall) Prof. Byeon Gak Choi (Seoul National University) *The Solar System through Micro-Analyses: a Review*	
10:40 ~ 10:50	Break	
10:50 ~ 12:40	**Session 7** (Hall) **– Geosciences** Dr. Anthony Dosseto(Univ. of Wollongong) *Assessing chronologies for dryland speleothems in the northeastern Flinders Ranges* Prof. Takafumi Hirata (Kyoto Univ.) *Imaging Cytometry using Laser Ablation-ICPMS Technique for Geochemistry and Biochemistry* Prof. Jung Hun Seo (Inha Univ.) *Anion (S, Cl, Br) Analysis of Fluid Inclusions by LA-ICP-MS: Applications to Magmatic-Hydrothermal Processes* Dr. Chang Sik Cheong (KBSI) *A linkage between interior and exterior tectonomagmatic processes in Late Paleozoic Korea as inferred from SHRIMP zircon ages*	**Session 8** (Session Room) **– ECR Ion Beam Application** Dr. Daniel Z. Xie (LBNL) *Development Status of the Next Generation ECRIS* Prof. Jung Ho Kim (Univ. of Wollongong) *Rationally designed MgB_2 superconductor wires for accelerator and energy applications* Prof. Hirohiko M. Shimizu (Nagoya Univ.) *Slow Neutrons for Physics and Industries* Dr. Yutaka Yamagata (RIKEN) *Development of accelerator and neutron imaging facilities*
12:40 ~ 13:40	**Lunch**	
13:40 ~ 15:20	**Session 9** (Hall) **– New Researchers in KBSI & GRAST** Dr. Young Wook Cho (KBSI) *Histone modifying complex is required for adipogenesis* Dr. Young Hye Kim (KBSI) *A human neural cell culture model of Alzheimer's disease* (Continued)	**Session 10** (Session Room) **– Latest Application of FIB-STEM** Dr. Mitsuru Konno (Hitachi) *Analytical system and in-situ observation for envelopment and energy materials* Dr. Toshiaki Fujii (Hitachi) *The Latest Analysis using Focused Ion Beam*

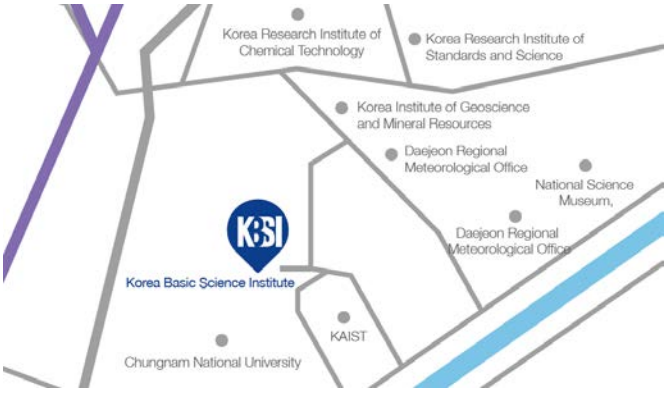
	Dr. Sang Mi Jun (KBSI) *Correlative Microscopy for 3D Structural Analysis of Dynamic Interactions* Prof. Aminur Rahman (GRAST) *Amplified detection of cancer biomarkers based on nanomaterials-coupled electrochemical immunosensors*	
15:20 ~ 15:30	Break	
15:30 ~ 16:30	**Young Scientists (Closing)**	**(Hall)**

Registration

All the participation in the conference excursion requires a registration. You can download the registration form at the conference website: http://icast.kbs.re.kr . Please fill out the form and send it to: mercurien@kbsi.re.kr. Please note that the deadline for early registration is 30 October 2014. The registration, including coffee breaks, luncheons for both days and a dinner for the first day, is free.

Venue

The conference will take place in *Korea Basic Science Institute* :
169-148 Gwahak-ro, Yuseong-gu, Daejeon, Korea



From Incheon International Airport

Daejeon is located about 197km southeast of Incheon International Airport(ICN). The most convenient way to travel to and from ICN is by using the Airport Limousine Bus.

Bus tickets and information are available at the bus ticketing office near exit 4 and 9(indoors) and exit 4, 6, 7, 8, 11, 13 and 9C(outdoors). Please check that the bus stop for Daejeon is platform 9D. The trip to Daejeon from ICN takes around 3hrs depending on traffic conditions. Ticket prices cost KRW 23,100 per person for a one-way trip.

• Time Table

06:00	06:20	06:40	06:50	07:00	07:10	07:20	07:30	07:40	07:50	08:00(Sejong)
08:10	08:25	08:40	08:50	09:10	09:30	09:40	09:50	10:10	10:20	10:40
11:00	11:20	11:40	12:00	12:20	12:40	13:00	13:20(Sejong)		13:40	14:00
14:20	14:40	15:00	15:20	15:40	16:10	16:30	16:50	17:10	17:30	17:40
17:50	18:10	18:30(Sejong)		18:40	19:00	19:10	19:20	19:30	19:40	20:00
20:20	20:40	21:00	21:20	21:50						
▶Night Bus		22:10	22:30	22:50	23:10	23:30				

For more details, please refer to the website:
http://www.airport.kr/airport/traffic/bus/busList.iia?flag=E

Accommodation

A block of rooms has been reserved in advance at the hotel Lotte City Hotel Daejeon. Pre-decided room rate will be available for participants of the conference. A support for lodging is only available for the guest speakers. Please contact us at mercurien@kbsi.re.kr concerning this matter at your earliest convenience.

Contact
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We are looking forward to seeing you at the conference!
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Hosted by

KBSI 한국기초과학지원연구원 KOREA BASIC SCIENCE INSTITUTE

JAST Journal of Analytical Science and Technology

GRAST 분석과학기술대학원 Graduate School of Science and Technology