



μ TAS 2015

GYEONGJU KOREA

The 19th International Conference on
Miniaturized Systems for Chemistry and Life Sciences

October 25 - 29, 2015

Hwabaek International Convention Center (HICO),
Gyeongju, KOREA

Abstract Submission Deadline April 14, 2015

Conference Chair

Je-Kyun Park KAIST, KOREA

Vice-Chairs

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Sponsored by

The Chemical and Biological Microsystems Society (CBMS)

The Korean BioChip Society (KBCS)

The Society of Micro and Nano Systems

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The 19th International Conference on Miniaturized Systems for Chemistry and Life Sciences

Call for Papers and Advance Announcement

The Nineteenth International Conference on Miniaturized Systems for Chemistry and Life Sciences (μTAS 2015) will be held at Hwabaek International Convention Center (HICO), Gyeongju, KOREA from October 25 – 29, 2015.

μTAS 2015 continues a series of Conferences that are the premier forum for reporting research results in microfluidics, microfabrication, nanotechnology, integration, materials and surfaces, analysis and synthesis, and detection technologies for life science and chemistry. The Conference offers plenary talks as well as contributed oral presentations and posters selected from submitted abstracts.

Following Seattle in 2011, Okinawa in 2012, Freiburg in 2013 and San Antonio in 2014, we anticipate over 1,000+ worldwide scientists and professionals engaged in research on and the use of integrated microsystems and nanotechnology for chemistry and life sciences.

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Je-Kyun Park (KAIST, KOREA)

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Topics

1. Fundamentals in Microfluidics and Nanofluidics

- 1.01 Electrokinetic Phenomena
- 1.02 Droplets & Multiphase Systems
- 1.03 Optofluidics
- 1.04 Magnetofluidics (Magnetic Particles & Related Phenomena)
- 1.05 Acoustofluidics
- 1.06 Nanofluidic Phenomena (Nanochannels and Nanopores)
- 1.07 Modeling/ Numerical Simulation
- 1.08 Others

2. Micro- and Nanoengineering

- 2.01 Microscale Fabrication, Patterning, and Integration
- 2.02 Nanoscale Fabrication, Patterning, and Integration
- 2.03 Bonding, Sealing & Interfacing Technologies
- 2.04 Novel, Smart & Responsive Materials
- 2.05 Surface Modification
- 2.06 Nanobiotechnology
- 2.07 Nanoscale Assembly
- 2.08 Others

3. Sensors & Actuators, and Detection Technologies

- 3.01 Micropumps, Valves, and Dispensers
- 3.02 Physical Sensors
- 3.03 Biosensors
- 3.04 Chemical & Electrochemical Sensors
- 3.05 Visualization & Imaging Technologies
- 3.06 Optical Detection
- 3.07 Mass Spectrometric Detection
- 3.08 Others

4. Integrated Microfluidic Platforms

- 4.01 Passive Microfluidics
- 4.02 Large Scale Integration
(Massively Parallel and High Throughput Systems)
- 4.03 Digital Microfluidics on Surfaces
- 4.04 Segmented Flow and Droplet Based Microfluidics in Channels
- 4.05 Centrifugal Microfluidics
- 4.06 Electrokinetic Microfluidics
- 4.07 Paper Microfluidics
- 4.08 Others

5. Cell Separation and Analysis

- 5.01 Cell Capture, Counting & Sorting
- 5.02 Circulating Tumor Cells
- 5.03 Stem Cells and Neural Cells
- 5.04 Liposomes/ Vesicles
- 5.05 Single Cell Analysis
- 5.06 Integrative Cell Analysis
- 5.07 Others

6. Cells, Organisms, and Organs on Chip

- 6.01 Cell Culture (2D/3D) & Perfusion
- 6.02 Inter- & Intracellular Signaling and Cell Migration
- 6.03 Organisms on Chip (*C. elegans*, *Zebrafish*, *Arabidopsis*, etc.)
- 6.04 Organs on Chip
- 6.05 Synthetic Biology
- 6.06 Bioinspired, Biomimetic & Biohybrid Devices
- 6.07 Others

7. Diagnostics, Theranostics, and Translational Medicine

- 7.01 Sample Preparation (Whole Blood, Saliva, Cell, Tissue, Food, etc.)
- 7.02 Nucleic Acid Analysis (Digital PCR, Next Generation Sequencing)
- 7.03 Protein Analysis & Characterization (e.g., Proteomics)
- 7.04 Clinical Chemistry
- 7.05 Cancer Research
- 7.06 Personalized Medicine and Pharmaceutical Analysis
- 7.07 Regenerative Medicine and Tissue Engineering
- 7.08 Neurobiology/ Neuroscience
- 7.09 Drug Development & Delivery
- 7.10 Others

8. Separations, Reactions, and Other MicroTAS Applications

- 8.01 Electrophoretic Separations
- 8.02 Chromatographic Separations
- 8.03 Particle Separations
- 8.04 Microreactors and Micromixers
- 8.05 Chemical & Particle Synthesis
- 8.06 Fuel Cells
- 8.07 Other Energy/ Power Devices
- 8.08 Environmental Analysis
- 8.09 Others