

# MSB 2026

## Int'l Symposium on Microscale Separations & Bioanalysis

May 10-13, 2026  
Daejeon, Korea



공동주최



충남대학교  
Chungnam National University

협찬



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# MSB 2026 Program Book

## Contents

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<b>01. Welcome Message</b> .....	1
<b>02. Committee</b> .....	2
<b>03. Program Overview</b> .....	4
<b>04. Program</b>	
- Program-FFF .....	8
- Poster Session I .....	16
- Workshop 1,3,5 .....	20
- Workshop 2,4 .....	21
<b>05. Venue/Shuttle</b> .....	22
<b>06. Advertisements</b> .....	25

**Dear Colleagues,**

It is our great pleasure to invite you to the 42<sup>nd</sup> International Symposium on Microscale Separations and Bioanalysis (MSB 2026), which will be held from May 10 to 13, 2026, at Chungnam National University in Daejeon, Korea.

MSB has long served as a premier forum for scientists, engineers, and innovators dedicated to advancing analytical separation science. MSB 2026 will continue this tradition by providing a dynamic platform for exploring fundamental principles, breakthrough microscale technologies, and emerging directions across the full breadth of bioanalytical science.

The symposium will gather researchers from around the world to discuss current scientific challenges, unmet technological needs, and future goals spanning **capillary electrophoresis, liquid chromatography, micro- and nanofluidics, mass spectrometry, single-cell analysis, metabolomics, proteomics, nucleic acids, and more.**

Within this broad scientific landscape, MSB 2026 will also place special emphasis on the rapidly advancing area of **glycan analysis**, widely regarded as one of the most demanding and complex frontiers in modern analytical chemistry. The structural diversity of glycans, their subtle isomerism, and their critical biological functions continue to drive innovation in high-resolution separations, multidimensional workflows, and integrative multi-omics strategies. This focused theme will enrich, not replace, the diverse scientific topics traditionally featured at MSB.

Through plenary lectures, keynotes, oral and poster presentations, and opportunities for collaboration, MSB 2026 aims to foster scientific excellence, inspire new ideas, and strengthen connections across our global community.

We look forward to welcoming you to Daejeon—Korea's leading hub of science and technology—and to sharing an exciting and memorable symposium experience with you.

With warm regards,



Doo Soo Chung  
Chair, MSB 2026  
Department of Chemistry  
Seoul National University

## Scientific Topics of MSB 2026

- Principle of Separation Science
- Advances in Capillary electrophoresis and Liquid Chromatography Separations
- Micro and Nanofluidics in Bioanalysis
- Sample Preparation for Bioanalysis
- New Trends in Mass Spectrometry Analysis
- Novel Instrumentation in Chemical Separations
- Coupling of Separation and Mass Spectrometry
- Proteomics/Metabolomics/Glycomics
- Artificial Intelligence and Machine Learning in Bioanalysis
- Nanotechnology in Bioanalysis
- Pharmaceutical Analysis
- Glycan Analysis
- Biosensors and Point-of-Care Bioanalysis
- Food Analysis
- Environmental Analysis

## 2026 MSB Scientific Committee

• David Chen	University of British Columbia	Canada	• <a href="mailto:chen@chem.ubc.ca">chen@chem.ubc.ca</a>
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• Hong Heng See	Universiti Teknologi Malaysia	Malaysia	• <a href="mailto:hhsee@utm.my">hhsee@utm.my</a>
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• Jae-Young Kim	Chungnam National University	Korea	• <a href="mailto:jaeyoungkim@cnu.ac.kr">jaeyoungkim@cnu.ac.kr</a>
• Jana Lavicka	Czech Academy of Sciences	Czech Republic	• <a href="mailto:lavicka@iach.cz">lavicka@iach.cz</a>
• Je Hyun Bae	Chungnam National University	Korea	• <a href="mailto:jehyunbae@cnu.ac.kr">jehyunbae@cnu.ac.kr</a>
• Jongcheol Seo	POSTECH	Korea	• <a href="mailto:jongcheol.seo@postech.ac.kr">jongcheol.seo@postech.ac.kr</a>
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• Seong Ho Kang	Kyeong Hee University	Korea	• <a href="mailto:shkang@khu.ac.kr">shkang@khu.ac.kr</a>
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• Tomasz Baczek	Medical University of Gdansk	Poland	• <a href="mailto:tbaczek@gumed.edu.pl">tbaczek@gumed.edu.pl</a>
• Yun Pyo Kang	Seoul National University	Korea	• <a href="mailto:yunpyo.kang@snu.ac.kr">yunpyo.kang@snu.ac.kr</a>

## 2026 MSB Local Organizing Committee

• Do Soo Cheong	Seoul National University, Korea	Chair
• Hyun Joo An	Chungnam National University, Korea	Chair
• Hyuk Nyun Kim	KASTI, Korea	Secretariat
• Hye Jin Lee	Kyungpook National University, Korea	
• Hyun Namgoong	KASTI, Korea	
• In Hyuk Park	Chungnam National University, Korea	
• Jaebeom Lee	Chungnam National University, Korea	
• Jae-Young Kim	Chungnam National University, Korea	
• Je Hyun Bae	Chungnam National University, Korea	
• Kihwan Choi	KRISS, Korea	
• Seong Ho Kang	Kyeong Hee University, Korea	
• Sung Won Kwon	Seoul National University, Korea	
• Thomas Lee	KASTI, Korea	
• Youjin Seo	KiT, Korea	

## 2026 MSB Plenary speakers

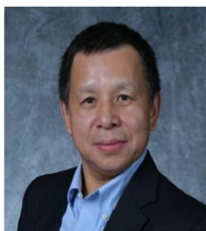
### PLENARY SPEAKERS



**Frantisek Foret**  
Institute of Analytical  
Chemistry  
Czech Republic



**Carlito Lebrilla**  
University of  
California, Davis  
USA



**Nianqiang Wu**  
University of  
Massachusetts  
USA



**Hyun Joo An**  
Chungnam National  
University  
Korea



**Akihide Hibara**  
Institute of Science  
Tokyo  
Japan

## Presentation time

Plenary: 40 min, Keynote: 25 min, Invited: 20 min, Oral: 10 min, Flash Talk: 3 min

Day 1	10 May (Sun)		
12:00	Registration (Baekma Hall)		
13:00-14:30	Workshop 1 (3 h) Computational Modeling of Electrokinetic Separations by COMSOL Software	Workshop 2 (1.5 h) Korean Hangul in 20 minutes	Workshop 3 (1.5 h) Gas Chromatography
14:30-15:00		Coffee Break	
15:00-16:30		Workshop 4 (1.5 h) Korean Culture	Workshop 5 (1.5 h) Liquid Chromatography
16:30-16:50	Opening Ceremony (Baekma Hall)		
16:50-17:30	Plenary Lecture I: Carlito Lebrilla (University of California, Davis) Chair: Hyun Joo An (Chungnam National University)		
17:30-17:35	SCIEX Award Introduction		
17:35-18:15	SCIEX Award: Alexander Ivanov (Northeastern University) Chair: Rawi Ramautar (Leiden Academic Center for Drug Research)		
18:20-20:00	Welcome Reception (Inno-Factory)		

Day 2	11 May (Mon)		
09:00-9:40	Plenary Lecture II: Frantisek Foret (Institute of Analytical Chemistry) Chair: Doo Soo Chung (Seoul National University)		
09:50-11:40	Session 1 Separation I	Session 2 Biomolecules in Cells	Session 3 Glycan analysis
	Chair: Bi-Feng Liu (Huazhong U. of Science & Technology) Hugh I. Kim (Korea University)	Chair: Muhammad Shiddiky (Charles Sturt University) Dukjin Kang (KRISS)	Chair: Atit Silsirivanit (Khon Kaen University) Jong-Seo Kim (Seoul National University)
	(KL) David Chen (University of British Columbia)	(KL) Alexandra Ros (Arizona State University)	(KL) Chi-Kung Ni (Academia Sinica)
	(KL) Andras Guttman (University of Pannonia)	(KL) Aaron Wheeler (University of Toronto)	(KL) Jaehan Kim (Chungnam National University)
	(KL) Hervé Cottet (Institut des Biomolécules Max Mousseron)	(KL) Dukjin Kang (KRISS)	(IN) Boyoung Lee (IBS)
	(OR) Quentin Lorenzi (University of Montpellier)	(IN) Il-Hwan Kim (KRISS)	(OR) Chenchen Liu (Kyushu University)
			(OL) Rebeka Török (University of Pannonia)
11:40-13:00	Lunch (Youngtop Hall)		
13:00-14:00	Flash Talks (Baekma Hall)		
14:00-15:50	Session 4 Advanced glycoproteomics	Session 5 Instrumentation	Session 6 Diagnosis
	Chair: Andras Guttman (University of Pannonia) Boyoung Lee (IBS)	Chair: Haiyang Li (Dalian Institute of Chemical Physics) Jongcheol Seo (POSTECH)	Chair: David Chen (University of British Columbia) Je Hyun Bae (Chungnam National University)
	(KL) Jae Young Kim (Gachon University)	(KL) Hyomin Lee (POSTECH)	(KL) Muhammad Shiddiky (Charles Sturt University)

	(KL) Atit Silsirivanit (Khon Kaen University)	(KL) Chang Min Choi (KBSI)	(KL) Bi-Feng Liu (Huazhong University of Science and Technology)
	(IN) In-Seok Yeo (Pai Chai University)	(KL) Jongcheol Seo (POSTECH)	(IN) Hugh I. Kim (Korea University)
	(IN) Unyong Kim (Chung-Ang University)	(IN) Seunggyu Kim (Korea University)	(IN) Je Hyun Bae (Chungnam National University)
			(OR) Vladimir Sladkov (JCLab/CNRS)
15:50-16:30	Coffee Break & Corporate Seminar (Inno-Factory)		
	<b>Session 7 Microfluidics I</b>	<b>Session 8 Sample Preparation I</b>	<b>Session 9 Hyphenation with Mass Spectrometry</b>
	<b>Chair: Alexandra Ros (Arizona State University) Nae Yoon Lee (Gachon University)</b>	<b>Chair: Gábor Járvas (University of Pannonia) Sunyoung Bae (Seoul Women's University)</b>	<b>Chair: Karen Waldron (Université de Montréal) Chang Min Choi (KBSI)</b>
	(KL) Manabu Tokeshi (Hokkaido University)	(KL) Yong Seok Choi (Dankook University)	(KL) Victor González-Ruiz (CEU-San Pablo University)
16:30-18:20	(IN) Youngung Seok (Chonnam National University)	(KL) Sunyoung Bae (Seoul Women's University)	(KL) Haiyang Li (Dalian Institute of Chemical Physics)
	(OR) Dariush Bahrami Eisaabadi (Vrije Universiteit)	(KL) Sureyya Ozcan (METU)	(KL) Eric Corley (West Virginia University)
	(OR) Xue Zhang (Shanghai University)	(KL) In-Hyeok Park (Chungnam National University)	(OR) Linnan Li (Shanghai U. of Traditional Chinese Medicine)
			(OR) Miguel Fernandez Garcia (Universidad San Pablo-CEU)

Day 3	<b>12 May (Tue)</b>		
09:00-9:40	<b>Plenary Lecture III: Akihide Hibara (Institute of Science Tokyo) Chair: Hye Jin Lee (Kyungpook National University)</b>		
	<b>Session 10 Bioanalysis</b>	<b>Session 11 Microfluidics II</b>	<b>Session 12 Omics I</b>
	<b>Chair: Tomasz Baczek (Medical University of Gdansk) Yun Pyo Kang (Seoul National University)</b>	<b>Chair: Takayuki Kawai (Kyushu University) Joonseok Lee (Hanyang University)</b>	<b>Chair: Hong Heng See (University of Technology Malaysia) Jae-Young Kim (Chungnam National University)</b>
	(KL) Jong-Seo Kim (Seoul National University)	(KL) Sang Kyung Kim (KIST)	(KL) Ryan Kelley (Brigham Young University)
09:50-11:40	(KL) Dong-Kyu Lee (Chung-Ang University)	(KL) Govert Somsen (Vrije Universiteit Amsterdam)	(KL) Jin Young Kim (KBSI)
	(KL) Jae Kyoo Lee (Seoul National University)	(OR) Leilei Shi (College of Charleston)	(KL) Jae-Young Kim (Chungnam National University)
	(IN) Yun Pyo Kang (Seoul National University)	(OR) Thi My Chi Nguyen (Chungnam National University)	(OR) Francisco Ruperez (Universidad San Pablo-CEU)
	(OR) Vitsarut Primpray (Chulalongkorn University)	(OR) Jisu Lim (Chungnam National University)	(OR) Sung-Jin Kim (Chungnam National University)
11:40-13:00	Lunch (Youngtop Hall)		
13:00-14:00	<b>Poster Session I (Odd-Numbered)</b>		
14:00-15:50	<b>Session 13 Biosensors and Point-of-Care Diagnosis</b>	<b>Session 14 Separation II</b>	<b>Session 15 Integrated Glycoanalytical Platforms</b>

	<b>Chair: Govert Somsen</b> (Vrije Universiteit Amsterdam) <b>Hye Jin Lee</b> (Kyungpook National University)	<b>Chair: Ryan Kelley</b> (Brigham Young University) <b>Tae-Young Kim</b> (GIST)	<b>Chair: Chi-Kung Ni</b> (Academia Sinica, Taiwan) <b>Jin Young Kim</b> (KBSI)
	(KL) Hisakage Funabashi (Hiroshima University)	(KL) Reine Nehmé (Université d'Orléans)	(KL) Jana Lavicka (Czech Academy of Sciences)
	(KL) Yi-Lun Ying (Nanjing University)	(KL) Sunghwan Kim (Kyungpook National University)	(KL) Takayuki Kawai (Kyushu University)
	(KL) Yumi Yoshida (Kyoto Institute of Technology)	(KL) Tae-Young Kim (GIST)	(KL) Gábor Járvas (University of Pannonia)
	(KL) Seiya Tsujimura (University of Tsukuba)	(IN) Xiaohui Lin (Dalian University of Technology)	(OR) Ji Eun Park (Chungnam National University)
	(OR) Junhee Yu (Chungnam National University)		
15:50-16:30	Coffee Break & Corporate Seminar (Inno-Factory)		
	<b>Session 16</b> <b>AI and Emerging Technology</b>	<b>Session 17</b> <b>Food Analysis</b>	<b>Session 18</b> <b>Environmental Analysis</b>
	<b>Chair: Guowang Xu</b> (Dalian Institute of Chemical Physics) <b>Han Bin Oh</b> (Sogang University)	<b>Chair: Sureyya Ozcan (METU)</b> <b>Sunghwan Kim</b> (Kyungpook National University)	<b>Chair: Victor González-Ruiz</b> (CEU-San Pablo University) <b>Kun Cho</b> (KBSI)
	(KL) Hyoung Seop Kim (National Institute of Environmental Research)	(KL) Byungjoo Kim (KRISS)	(KL) Jaehak Jung (KIAST)
16:30-18:20	(KL) Han Bin Oh (Sogang University)	(KL) Cheong-Tae Kim (Nongshim)	(KL) Yun Gyong Ahn (KBSI)
	(KL) Dongha Shin (Inha University)	(IN) Hyung Min Kim (Chungnam National University)	(KL) Kun Cho (KBSI)
	(KL) Keunhong Jeong (Sogang University)	(OR) Mooseob Kim (Shanghai U. of Traditional Chinese Medicine)	(KL) Jaebeom Lee (Chungnam National University)
		(OR) Indramemdi Khoris (Chungnam National University)	(OR) Magdalena Andelini (University of Orleans)
19:00-21:00	Banquet (ICC Hotel)		

Day 4	<b>13 May (Wed)</b>		
9:00-9:40	<b>Plenary Lecture IV: Nianqiang Wu (University of Massachusetts)</b> <b>Chair: Manabu Tokeshi (Hokkaido University)</b>		
	<b>Session 19</b> <b>Sample Preparation II</b>	<b>Session 20</b> <b>Omics II</b>	<b>Session 21</b> <b>Separation III</b>
	<b>Chair: Reine Nehmé</b> (Université D'Orléans) <b>Jeongmi Lee</b> (Sungkyunkwan University)	<b>Chair: Jana Lavicka</b> (Institute of Analytical Chemistry) <b>Min-Sik Kim</b> (DGIST)	<b>Chair: Xiaohui Lin</b> (Dalian University of Technology) <b>Jaebeom Lee</b> (Chungnam National University)
9:50-11:40	(KL) Karen Waldron (Université de Montréal)	(KL) Guowang Xu (Dalian Institute of Chemical Physics)	(KL) Thanh Duc Mai (Université Paris-Saclay)
	(KL) Hong Heng See (University of Technology Malaysia)	(KL) Min-Sik Kim (DGIST)	(KL) Chengxi Cao (Shanghai jiao Tong University)
	(KL) Jeongmi Lee (Sungkyunkwan University)	(KL) Rawi Ramautar (Leiden Academic Center for Drug Research)	(KL) Myriam Taverna (Paris-Saclay University)

	(KL) Tomasz Baczek (Medical University of Gdansk)	(IN) Youngshik Choe (Korea Brain Research Institute)	(OR) Mohamed Hefnawy (King Saud University)
			(OR) Seung-Hyun Oh (Chungnam National University)
11:40-13:00	Lunch (Inno-Factory)		
13:00-14:00	<b>Poster Session II (Even-Numbered)</b>		
14:00-14:40	<b>Plenary Lecture V: Hyun Joo An (Chungnam National University)</b> <b>Chair: Frantisek Foret (Institute of Analytical Chemistry)</b>		
14:40-15:30	Closing Ceremony (Baekma Hall, Lucky draw included)		

## Program of MSB 2026

May 10~13, 2026, Chungnam National University, Daejeon, Korea

### May 10, 2026 (Sunday)

	<b>Workshop 1</b>	
13:00-16:00	<b>Computational Modeling of Electrokinetic Separations by COMSOL Software</b> Bohuslav Gaš (Charles University)	
	<b>Workshop 2</b> <b>Korean Language &amp; Culture Experience</b>	
13:00-14:30	<b>First Step in Hangeul</b>	
	<b>Workshop 3</b>	
13:00-14:30	<b>Gas Chromatography, from Beginner to Expert in 90 Minutes</b> Young In Chromass	
14:30-15:00	<b>Coffee break</b>	
	<b>Workshop 4</b> <b>Korean Language &amp; Culture Experience</b>	
15:00-16:30	<b>Korean Calligraphy &amp; Culture</b>	
	<b>Workshop 5</b>	
15:00-16:30	<b>Basic Principles and Applications of Liquid Chromatography</b> Agilent	
16:30-16:50	<b>Opening Ceremony</b>	<i>Baekma Hall</i>
	<b>Plenary Lecture I</b> Chair: Hyun Joo An (Chungnam National University)	<i>Baekma Hall</i>
16:50-17:30	<b>Revealing Role of Glycans in Cell-Cell Interactions</b> Carlito Lebrilla (University of California, Davis)	
17:30-17:35	<b>SCIEX Award Introduction</b>	<i>Baekma Hall</i>
	<b>SCIEX Award</b> Chair: Rawi Ramautar (Leiden University)	<i>Baekma Hall</i>
17:35-18:15	<b>Ultralow Flow Separations Enhance MS Sensitivity for Diverse Molecular Modalities in Limited Biological Samples</b> Alexander Ivanov (Northeastern University)	
18:20-20:00	<b>Welcome Reception</b>	<i>Inno-Factory</i>

## May 11, 2026 (Monday)

	<b>Plenary Lecture II</b> Chair: Doo Soo Chung (Seoul National University)	<i>Baekma Hall</i>
09:00-09:40	<b>Epitachophoresis - Principles and Applications for DNA and Protein Concentration</b> Frantisek Foret (Institute of Analytical Chemistry)	
	<b>Separation I</b> Chair: Bi-Feng Liu (Huazhong U. of Science & Technology) Hugh I. Kim (Korea University)	<i>Hall 1</i>
09:50-10:15	<b>(KL) Capillary Electrophoresis Frontal Analysis for Affinity Evaluation of Biomolecules</b> David Chen (University of British Columbia)	
10:15-10:40	<b>(KL) Quo Vadis Capillary Gel Electrophoresis</b> Andras Guttman (University of Pannonia)	
10:40-11:05	<b>(KL) Understanding and Optimizing Separation Efficiency of Intact Proteins in CE and CE-MS</b> Hervé Cottet (Institut des Biomolécules Max Mousseron)	
11:05-11:15	<b>(OR) Generic Capillary Electrophoresis Methodology for Quality Control of Histidine Epimerization in Therapeutic Peptides</b> Quentin Lorenzi (University of Montpellier)	
	<b>Biomolecules in Cells</b> Chair: Muhammad Shiddiky (Charles Sturt University) Dukjin Kang (KRISS)	<i>Hall 2</i>
09:50-10:15	<b>(KL) Exploiting the Microenvironment for Bioanalysis</b> Alexandra Ros (Arizona State University)	
10:15-10:40	<b>(KL) Digital Microfluidic Tools for Single-Cell-Omics Analysis</b> Aaron Wheeler (University of Toronto)	
10:40-11:05	<b>(KL) Quantitative Proteomic Analysis of Cerebral Organoid-Derived Extracellular Vesicles to Underpin the Maturation of Organoids</b> Dukjin Kang (KRISS)	
11:05-11:25	<b>(IN) Scrub Typhus Patient Immune System Recognizes Recombinant Proteins from the Disease Vector, Leptotrombidium Pallidum</b> Il-Hwan Kim (KRISS)	
	<b>Glycan Analysis</b> Chair: Atit Silsirivanit (Khon Kaen University) Jong-Seo Kim (Seoul National University)	<i>Hall 3</i>
09:50-10:15	<b>(KL) Structural Identification of Carbohydrate Isomers Using Logically Derived Sequence Tandem Mass Spectrometry</b> Chi-Kung Ni (Academia Sinica)	
10:15-10:40	<b>(KL) Analysis of Human Milk Glycome</b> Jaehan Kim (Chungnam National University)	
10:40-11:00	<b>(IN) Targeting Protein Sialylation in Depression: Mechanisms and Therapeutic Potential</b> Boyoung Lee (IBS)	
11:00-11:10	<b>(OR) High-Recovery Glycan Analysis Enabled by Online Electrokinetic Desalting in Capillary Electrophoresis</b> Chenchen Liu (Kyushu University)	
11:10-11:20	<b>(OR) AI-Supported Serum N-Glycan Profiling for Early Monitoring of Chemotherapy Efficacy in Lung Cancer</b> Rebeka Török (University of Pannonia)	
11:40-13:00	<b>Lunch</b>	<i>Youngtop Hall</i>
13:00-14:00	<b>Flash Talks</b> Chair: Je Hyun Bae (Chungnam National University)	<i>Baekma Hall</i>
	<b>Advanced Glycoproteomics</b> Chair: Andras Guttman (University of Pannonia) Boyoung Lee (IBS)	<i>Hall 1</i>
14:00-14:25	<b>(KL) Neu5Ac Overexpression on Gene-Edited Porcine RBCs: Implications for Siglec-1-Mediated Immune Recognition in Xenotransfusion</b> Jae Young Kim (Gachon University)	

14:25-14:50	<b>(KL) Targeting Glycans for Diagnosis and Treatment of Human Diseases</b> Atit Silsirivanit (Khon Kaen University)	
14:50-15:10	<b>(IN) Glycosylation Profiling and Purification of Serum Haptoglobin for Biomarker Applications</b> In-Seok Yeo (Pai Chai University)	
15:10-15:30	<b>(IN) DeepY: Neural Network-Driven Similarity Assessment of Monoclonal Antibody Biosimilars</b> Unyong Kim (Chung-Ang University)	
	<b>Instrumentation</b> Chairs: Haiyang Li (Dalian Institute of Chemical Physics) Jongcheol Seo (POSTECH)	<i>Hall 2</i>
14:00-14:25	<b>(KL) Droplet Microfluidic Instrumentation for Compartmentalized Bioanalysis</b> Hyomin Lee (POSTECH)	
14:25-14:50	<b>(KL) Domestic Development of a ToF-SIMS Platform for Spatial Separation-Enabled Imaging Mass Spectrometry of Organic Surface Molecules</b> Chang Min Choi (KBSI)	
14:50-15:15	<b>(KL) Ion Mobility Spectrometry for the Structural Characterization of Biomolecules and Biomolecular Assemblies</b> Jongcheol Seo (POSTECH)	
15:15-15:35	<b>(IN) Beyond Microphysiological Systems: An In Vitro/In Silico Hybrid System for Predicting Subcutaneous Drug Transport</b> Seunggyu Kim (Korea University)	
	<b>Diagnosis</b> Chairs: Haiyang Li (Dalian Institute of Chemical Physics) Jongcheol Seo (POSTECH)	<i>Hall 3</i>
14:00-14:25	<b>(KL) A Universal Device for Early, Rapid, and On-the-Go Molecular Diagnostics Across Fields</b> Muhammad Shiddiky (Charles Sturt University)	
14:25-14:50	<b>(KL) Microfluidics Towards Exosomes Analysis and Applications to Cancer Diagnosis</b> Bi-Feng Liu (Huazhong University of Science and Technology)	
14:50-15:10	<b>(IN) Study of Cancer Cell Plasticity Induced by Chemotherapeutic Stimulation</b> Hugh I. Kim (Korea University)	
15:10-15:30	<b>(IN) Selective Electrochemical Reactions Enabled by Structure of Nanoporous Electrodes</b> Je Hyun Bae (Chungnam National University)	
15:30-15:40	<b>(OR) Complexation of Tb(III) with Selected Hydroxamic Acids in Aqueous Solutions at Near-Physiological pH</b> Vladimir Sladkov (JCLab/CNRS)	
15:50-16:30	<b>Coffee Break &amp; Corporate Seminar</b>	<i>Inno-Factory</i>
	<b>Microfluidics I</b> Chair: Alexandra Ros (Arizona State University) Nae Yoon Lee (Gachon University)	<i>Hall 1</i>
16:30-16:55	<b>(KL) Paper-Based Microfluidic Platforms for Field Detection of Chemical Threats</b> Manabu Tokeshi (Hokkaido University)	
16:55-17:15	<b>(IN) Microfluidic Integration for Point-of-Care Molecular Diagnostics</b> Youngung Seok (Chonnam National University)	
17:15-17:25	<b>(OR) Polymeric AC-Electrokinetic Microfluidic Chip for Vortex-Enhanced Liquid Chromatography</b> Dariush Bahrami Eisaabadi (Vrije Universiteit)	
17:25-17:35	<b>(OR) Spatial Confinement-Engineered Microfluidic Platform for Ultrafast Proteolysis and Deep Single-Cell Proteome Mapping</b> Xue Zhang (Shanghai University)	
	<b>Sample Preparation I</b> Chairs: Gábor Járvas (University of Pannonia) Sunyoung Bae (Seoul Women's University)	<i>Hall 2</i>
16:30-16:55	<b>(KL) Matrix-Aware Sample Preparation Strategy across Matrix Complexity: From Plasma to Complex Food and Herbal Matrices</b> Yong Seok Choi (Dankook University)	

16:55-17:20	<b>(KL) Strategic Sample Preparation for Revolutionizing Human Skin Volatilomics</b> Sunyoung Bae (Seoul Women's University)	
17:20-17:45	<b>(KL) Beyond the Spotlight: Navigating the Limits of Proteomic Analysis</b> Sureyya Ozcan (METU)	
17:45-18:10	<b>(KL) Preparation, Photoreactivity, and Structural Modulation of Metal–Organic Frameworks Based on Symmetric and Asymmetric Olefinic Ligands</b> In-Hyeok Park (Chungnam National University)	
	<b>Hyphenation with Mass Spectrometry</b> Chairs: Karen Waldron (Université de Montréal) Chang Min Choi (KBSI)	<i>Hall 3</i>
16:30-16:55	<b>(KL) Metabolomics and CE-MS: From a Couple's Fight To a Honeymoon</b> Victor González-Ruiz (CEU-San Pablo University)	
16:55-17:20	<b>(KL) Rapid Determination of Intraoperative Blood Propofol/Cipofol Concentration by Dopant-Enhanced VUV Photoionization Ion Mobility Spectrometry</b> Haiyang Li (Dalian Institute of Chemical Physics)	
17:20-17:45	<b>(KL) Microscale Separations Coupled to Mass spectrometry through Vibrating Sharp-Edge Spray Ionization</b> Eric Corley (West Virginia University)	
17:45-17:55	<b>(OR) Innovative Ambient Ionization Mass Spectrometry Approaches for the Comprehensive Characterization of Natural Medicines</b> Linnan Li (Shanghai U. of Traditional Chinese Medicine)	
17:55-18:05	<b>(OR) Benchmarking a Commercial Dielectric Barrier Discharge Ion Source in Bacterial Lipidomics</b> Miguel Fernandez Garcia (Universidad San Pablo-CEU)	

## May 12, 2026 (Tuesday)

	<b>Plenary Lecture III</b> Chair: Hye Jin Lee (Kyungpook National University)	<i>Baekma Hall</i>
09:00-09:40	<b>Toward Screening of PFAS-Biomolecule Interactions: Chromatography with Sub-Nanolayer Fluoroalkyl-Silane Modification</b> Akihito Hibara (Institute of Science Tokyo)	
	<b>Bioanalysis</b> Chair: Tomasz Baczek (Medical University of Gdansk) Yun Pyo Kang (Seoul National University)	<i>Hall 1</i>
09:50-10:15	<b>(KL) Subcellular Spatial Proteomics by Super-Resolution Proximity Labeling</b> Jong-Seo Kim (Seoul National University)	
10:15-10:40	<b>(KL) Single-Cell Imaging of Lipid Unsaturation via Nanoscale Secondary Ion Mass Spectrometry Palladium-Catalyzed Deuteration</b> Dong-Kyu Lee (Chung-Ang University)	
10:40-11:05	<b>(KL) Microdroplet Based Mass Spectrometry: From Interfacial Chemistry to Advanced Molecular Analysis</b> Jae Kyoo Lee (Seoul National University)	
11:05-11:25	<b>(IN) A Ubiquinol Quantification Method Based on an Isotope Correction Algorithm</b> Yun Pyo Kang (Seoul National University)	
	<b>Microfluidics II</b> Chair: Takayuki Kawai (Kyushu University) Joonseok Lee (Hanyang University)	<i>Hall 2</i>
09:50-10:15	<b>(KL) Bridging Solid and Liquid: Permeable Hydrogel Microparticles for Advanced Molecular Diagnostics</b> Sang Kyung Kim (KIST)	
10:15-10:40	<b>(KL) Advancing Microfluidic Capillary Electrophoresis-Mass Spectrometry for Quality Assessment of Pharmaceutical Antibodies</b> Govert Somsen (Vrije Universiteit Amsterdam)	
10:40-10:50	<b>(OR) Exploiting Fixture-induced Resonance for Enhanced Impedance Spectroscopy Sensitivity</b> Leilei Shi (College of Charleston)	

10:50-11:00	<b>(OR) Sequence-Selective and Label-Free DNA Sensing via Magnetoplasmonic Core-Satellite Nanostructures</b> Thi My Chi Nguyen (Chungnam National University)	
11:00-11:10	<b>(OR) Di-Carboxylate Linker-Driven Structural Diversity and Solid-State Structural Conversion of Coordination Polymers</b> Jisu Lim (Chungnam National University)	
	<b>Omics I</b> Chair: Hong Heng See (University of Technology Malaysia) Jae-Young Kim (Chungnam National University)	<i>Hall 3</i>
09:50-10:15	<b>(KL) Advanced Sample Preparation and Separations Drive Down the Cost of In-Depth Proteome Profiling to \$10 per Sample</b> Ryan Kelley (Brigham Young University)	
10:15-10:40	<b>(KL) LC-MS/MS Based Site Specific N-Glycopeptide Analysis for Clinical Scale Serum Glycoproteomics</b> Jin Young Kim (KBSI)	
10:40-11:05	<b>(KL) System-Level Proteomic Profiling of MASTL-mediated Signaling in Gastric Cancer</b> Jae-Young Kim (Chungnam National University)	
11:05-11:15	<b>(OR) Benchmarking Complementary MS Platforms for High-Coverage Profiling of the Polar Metabolome in Liver Tissue</b> Francisco Ruperez (Universidad San Pablo-CEU)	
11:15-11:25	<b>(OR) Secretome Profiling to Elucidate MASTL Function in Gastric Cancer-associated Fibroblasts</b> Sung-Jin Kim (Chungnam National University)	
11:40-13:00	<b>Lunch</b>	<i>Youngtop Hall</i>
13:00-14:00	<b>Poster Session I (Odd-Numbered)</b>	
	<b>Biosensors and Point-of-Care Diagnosis</b> Chair: Govert Somsen (Vrije Universiteit Amsterdam) Hye Jin Lee (Kyungpook National University)	<i>Hall 1</i>
14:00-14:25	<b>(KL) Bioanalysis Based on a Homogeneous Assay Utilizing DNA Nanotweezers as Biosensing Molecules</b> Hisakage Funabashi (Hiroshima University)	
14:25-14:50	<b>(KL) Nanopore Electrochemistry for Single Peptide Sensing</b> Yi-Lun Ying (Nanjing University)	
14:50-15:15	<b>(KL) Electrolyte-Responsive Smart Liposomal Systems: A New Mechanistic Basis for Drug Delivery</b> Yumi Yoshida (Kyoto Institute of Technology)	
15:15-15:40	<b>(KL) Designing Electrode Materials for Enzyme-Based Electrochemical Biosensors</b> Seiya Tsujimura (University of Tsukuba)	
15:40-15:50	<b>(OR) Charge-Controlled Dopamine Detection Using SAM-Functionalized Nanoporous Gold</b> Junhee Yu (Chungnam National University)	
	<b>Separation II</b> Chairs: Ryan Kelley (Brigham Young University) Tae-Young Kim (GIST)	<i>Hall 2</i>
14:00-14:25	<b>(KL) Miniaturized Near-Native Enzymatic Assays for Kinetic and Affinity Analysis Using Capillary Electrophoresis and Microscale Thermophoresis</b> Reine Nehmé (Université d'Orléans)	
14:25-14:50	<b>(KL) Assessing the Impact of Tire-Derived Chemicals in Particulate Matter via LC-MS Analysis</b> Sunghwan Kim (Kyungpook National University)	
14:50-15:15	<b>(KL) Unraveling Lignin Depolymerization: A Novel <i>in silico</i> Approach for Discovering Unknown Degradation Products</b> Tae-Young Kim (GIST)	
15:15-15:35	<b>(IN) A Transfer Learning Framework for Retention Time Prediction in Metabolomics: Integrating Molecular and Chromatographic Parameter Representations</b> Xiaohui Lin (Dalian University of Technology)	
	<b>Integrated Glycoanalytical Platforms</b> Chairs: Chi-Kung Ni (Academia Sinica) Jin Young Kim (KBSI)	<i>Hall 3</i>

14:00-14:25	<b>(KL) Advancing CE/LIF and CE-MS Analysis of Glycans by Improving Detection Sensitivity</b> Jana Lavicka (Institute of Analytical Chemistry)	
14:25-14:50	<b>(KL) Ultra-Sensitive Bioanalysis by Dual-Stacking Capillary Electrophoresis</b> Takayuki Kawai (Kyushu University)	
14:50-15:15	<b>(KL) The Evaluation of the Glucose Unit Calculation</b> Gábor Járvas (University of Pannonia)	
15:15-15:25	<b>(OR) Systematic Characterization of Immunogenic Glycan Epitopes in Transgenic Pig Models Using Isomer-Specific PGC-based LC-MS/MS</b> Ji Eun Park (Chungnam National University)	
15:50-16:30	<b>Coffee Break &amp; Corporate Seminar</b>	<i>Inno-Factory</i>
	<b>AI and Emerging Technology</b> Chair: Guowang Xu (Dalian Institute of Chemical Physics) Han Bin Oh (Sogang University)	<i>Hall 1</i>
16:30-16:55	<b>(KL) Comparative Evaluation of Fingerprint- and Graph-Based Modeling Approaches for Aquatic Ecotoxicity Prediction</b> Hyoung Seop Kim (National Institute of Environmental Research)	
16:55-17:20	<b>(KL) AI Applications in Identifying Illegal Drugs Using Mass Spectrometry Data</b> Han Bin Oh (Sogang University)	
17:20-17:45	<b>(KL) Artificial Raman Expert (ARE): Autonomous Heuristic Reasoning for Adaptive Raman Spectroscopic Analysis Using Localized Large Language Models</b> Dongha Shin (Inha University)	
17:45-18:10	<b>(KL) AI-based Analytical Techniques for the Identification of Unknown Chemical Agents</b> Xue Zhang (Shanghai University)	
	<b>Food Analysis</b> Chairs: Sureyya Ozcan (METU) Sunghwan Kim (Kyungpook National University)	<i>Hall 2</i>
16:30-16:55	<b>(KL) Development of ID-LC/MS Methods for the Accurate Analysis of Mycotoxins in Foods</b> Byungjoo Kim (KRISS)	
16:55-17:20	<b>(KL) Potential Critical Errors in Food Quality and Safety Assessment and Their Mitigation Strategies</b> Cheong-Tae Kim (Nongshim)	
17:20-17:40	<b>(IN) Simultaneous Determination of UV Stabilizers and Brominated Flame Retardants in Korean Foods: Implications for Dietary Risk Assessment</b> Hyung Min Kim (Chungnam National University)	
17:40-17:50	<b>(OR) A Harmonized Identification Analysis Method of Asian Ginseng, American Ginseng and Notoginseng</b> Mooseob Kim (Shanghai University of Traditional Chinese Medicine)	
17:50-18:00	<b>(OR) Incorporation of Quantum Dots and Hapten on MOFs for Food Toxin Monitoring</b> Indramemdi Khoris (Chungnam National University)	
	<b>Environmental Analysis</b> Chairs: Victor González-Ruiz (CEU-San Pablo University) Kun Cho (KBSI)	<i>Hall 3</i>
16:30-16:55	<b>(KL) Global Trends in Microplastics Regulations and Advances in Analytical Methods</b> Jaehak Jung (KIAST)	
16:55-17:20	<b>(KL) Spatial Characteristics of Atmospheric Polycyclic Aromatic Compounds in Northeast Asia Using GC/MS</b> Yun Gyong Ahn (KBSI)	
17:20-17:45	<b>(KL) Multi-Platform Mass Spectrometry Reveals Molecular Complexity of Plastiglomerates</b> Kun Cho (KBSI)	
17:45-18:10	<b>(KL) Electron Perturbation for Chiral DNA Point Mutation</b> Jaebeom Lee (Chungnam National University)	
18:10-18:20	<b>(OR) From Microfluidics to Microdroplets for Molecularly Imprinted Polymers (MIP) Synthesis for Environmental Applications</b> Magdalena Andelini (University of Orleans)	
19:00-21:00	<b>Banquet</b>	<i>ICC Hotel</i>

## May 13, 2026 (Wednesday)

	<b>Plenary Lecture IV</b> Chair: Manabu Tokeshi (Hokkaido University)	<i>Baekma Hall</i>
09:00-09:40	<b>Opto-Microfluidic Lab-on-Chip Systems for Microscale Separation and Point-of-Care Testing of Blood</b> Nianqiang Wu (University of Massachusetts)	
	<b>Sample Preparation II</b> Chair: Reine Nehmé (Université d'Orléans) Jeongmi Lee (Sungkyunkwan University)	<i>Hall 1</i>
09:50-10:15	<b>(KL) Glutaraldehyde-Crosslinked Enzymes for On-Surface Digestion of Proteins</b> Karen Waldron (Université de Montréal)	
10:15-10:40	<b>(KL) Solid-State Electrokinetic Migration in Polymer Inclusion Membranes</b> Hong Heng See (University of Technology Malaysia)	
10:40-11:05	<b>(KL) Emerging Deep Eutectic Solvents in Sample Preparation Methods</b> Jeongmi Lee (Sungkyunkwan University)	
11:05-11:30	<b>(KL) From Discrete Brain Regions to Living Plants: Microscale SPME Enabling Region-Specific and in vivo Cannabinoid Bioanalysis</b> Tomasz Baczek (Medical University of Gdansk)	
	<b>Omics II</b> Chair: Jana Lavicka (Institute of Analytical Chemistry) Min-Sik Kim (DGIST)	<i>Hall 2</i>
09:50-10:15	<b>(KL) New Annotation Methods for High-Resolution Mass Spectrometry-Based Nontargeted Metabolomics</b> Guowang Xu (Dalian Institute of Chemical Physics)	
10:15-10:40	<b>(KL) Temporal Proteome Dynamics of Hematopoietic Stem Cells During Aging</b> Min-Sik Kim (DGIST)	
10:40-11:05	<b>(KL) Capillary Electrophoresis-Mass Spectrometry for Metabolomics: A 20-Year Journey of Innovation in Method Development and Microscale Bioanalysis</b> Rawi Ramautar (Leiden University)	
11:05-11:20	<b>(IN) Microhole-Based Single-Cell Proteomics Reveals Spatial Neuroimmune Landscape in Alzheimer's Disease</b> Youngshik Choe (Korea Brain Research Institute)	
	<b>Separation III</b> Chair: Xiaohui Lin (Dalian University of Technology) Jaebeom Lee (Chungnam National University)	<i>Hall 3</i>
09:50-10:15	<b>(KL) Multiple-Regime On-Line Preconcentration for High-Performance CE-LIF of Biomolecules and Nanoparticles with Heterogeneous Mobilities</b> Thanh Duc Mai (Université Paris-Saclay)	
10:15-10:40	<b>(KL) Novel Techniques of Isoelectric Focusing for Separation of Proteins, Viruses and Cells</b> Chengxi Cao (Shanghai jiao Tong University)	
10:40-11:05	<b>(KL) Capillary Electrophoresis Approaches for Intact Extracellular Vesicles: Stability and Physicochemical Insights</b> Myriam Taverna (Paris-Saclay University)	
11:05-11:15	<b>(OR) Novel Ultra-Performance Liquid Chromatography Tandem Mass Spectrometry Assay for the Simultaneous Quantification of Abemaciclib and Tamoxifen with its Major Metabolites in Rat Plasma: Application to Pharmacokinetics Study</b> Mohamed Hefnawy (King Saud University)	
11:15-11:25	<b>(OR) Secretome-Based Dissection of the Mechanism of Dasatinib in Gastric Cancer-Associated Fibroblasts</b> Seung-Hyun Oh (Chungnam National University)	
11:40-13:00	<b>Lunch</b>	<i>Inno-Factory</i>
13:00-14:00	<b>Poster Session II (Even-Numbered)</b>	
	<b>Plenary Lecture V</b> Chair: Frantisek Foret (Institute of Analytical Chemistry)	<i>Baekma Hall</i>

14:00-14:40 | **Glycan Isomers as a New Lens on Brain Disorders**  
Hyun Joo An (Chungnam National University)

14:40-15:30 | **Closing Ceremony**

*Baekma Hall*

## Poster Session I

Poster Number	Title and Presenter
1	<b>Pantothenate Kinase 4 Controls Lipid Synthesis for T-cell Proliferation by Modulating Coenzyme A and Glutaminolysis</b> Chi Nguyen (Seoul National University)
3	<b>Highly Sensitive LC-MS/MS Platform for Isomer-Specific Quantitation of Chondroitin Sulfate in Mouse Retinal Tissue</b> Jeong Won Kim (Chungnam National University)
5	<b>Tempo-Based FRIPS MS Software Development and Sequencing Analysis of Monoclonal Antibody (Trastuzumab)</b> Eungyu Yang (Sogang University)
7	<b>Introduction of Discrete Spacers into the Two-Dimensional Capillary Isotachopheresis-Tandem Mass Spectrometry: Resolution Enhancement of Thiamine and Pyridoxine in Model and Real Biological Samples</b> Paula Cermakova (Comenius University in Bratislava)
9	<b>Skin Surface Lipidomics Identifies Sebaceous Lipid Dysregulation as a Key Feature of Sensitive Skin</b> Minkyong Hong (Chung-Ang University)
11	<b>Comprehensive Gas-Phase Characterization of Therapeutic Antibodies: Native MS and CIU Reveal Subclass-specific Conformational Landscapes</b> Abhik Mojumdar (KBSI)
13	<b>Design and Performance Evaluation of Conductive Nanopipette Electrodes for Nanoscale Electrochemical Systems</b> Sunyeong Hong (Chungnam National University)
15	<b>Fluorescence-Based Genotyping of Apolipoprotein E Single Nucleotide Polymorphisms Using carbon dots-coupled recombinase polymerase amplification</b> Ting-Hsuan Chuang (National Chung Cheng University)
17	<b>Ion-Transfer Sensing of Perfluorooctanoic Acid at a Water-Gel Microinterface</b> Minh Thao Huynh Hua (Kyungpook National University)
19	<b>Selectivity of Electrochemical Reactions Based on Adsorption at Nanoporous Electrodes</b> Je Hyun Bae (Chungnam National University)
21	<b>Chemical Fingerprinting of Manufacturing Method and regional Differences in Sesame Oil</b> Eunji Jeon (KBSI)
23	<b>LC-MS/MS-Based Profiling of Maillard Reaction Intermediates in Doenjang and Gochujang under Variable Fermentation Conditions</b> Yebin An (Chungnam National University)
25	<b>CrN Nanozyme-Based Catalytically Amplified Lateral Flow Assay for Transglutaminase 2 Quantification</b> Mungyeong Jeong (Kyungpook National University)
27	<b>Integrated Multi-Omics Analysis Reveals OPFR-Induced Mitochondrial Dysfunction and Oxidative Stress in Caenorhabditis Elegans</b> Jeongjun Ahn (Chungnam National University)
29	<b>Ultrasound-Assisted Extraction of Caffeine from Green Tea Using COSMO-RS-Predicted Deep Eutectic Solvents: Roles of Solubilization and Cell Wall Disruption</b> Seoyeon Lee (Sungkyunkwan University)
31	<b>Comprehensive Glycoproteomic Profiling of Urinary UMOD Reveals Site-Specific Alterations in Renal Cell Carcinoma</b> Hahyun Lee (KBSI)
33	<b>Analysis of N-Glycans in Keyhole Limpet Hemocyanin: Quality Control of Modern Immunogenic Carrier Protein</b> Juraj Piestansky (Comenius University in Bratislava)
35	<b>Non-Destructive Identification of Cationic Ballpoint Ink on Document with Blotting Surface Analysis-Capillary Electrophoresis</b> Sunkyung Jeong (Seoul National University)
37	<b>A Single-Plate Strategy for Simultaneous Chemical and Biological Profiling of Natural Products via TLC-Bioautography-Ambient Mass Spectrometry</b> Jianxing Lv (Shanghai University of Traditional Chinese Medicine)
39	<b>A Quality Control Framework to Enhance Analytical Reliability in DIA-MS</b> Hayoung Lee (KBSI)

41	<b>Retention Time Prediction of Unmodified and Modified Peptides by Machine Learning</b> Raisul Awal Mahmood (Kyungpook National University)
43	<b>Spatially Resolved Glycomic and Proteomic Profiling Reveals Region-Specific Sialylation Deficits in the Depressed Mouse Brain</b> Hee Young Jo (Chungnam National University)
45	<b>LC-MS/MS-based Integrated Omics Approach for Spatially and Cellularly Resolved Glycophenotyping of the Mouse Brain</b> Dongtan Yin (Chungnam National University)
47	<b>Dual-Isotope Kinetic LC-MS/MS Enables Redox-Preserving Coenzyme Q Profiling for Ferroptosis and Biomarker Discovery</b> Tae Ha Kim (Seoul National University)
49	<b>Ligand-Dependent Structural Diversity and Photoreactivity in Metal–Organic Frameworks</b> Gyeongun Ahn (Chungnam National University)
51	<b>Dynamic Structural Behavior of Metal–Organic Frameworks Incorporating Bifunctional Olefin Ligands</b> Kyunghye Ju (Chungnam National University)
53	<b>A Novel Micro-HS Extraction Technique for the Determination of VOCs</b> Sunkyung Jeong (Seoul National University)
55	<b>Resolving Uronic Acidic Isomers from Marine Polysaccharides via Derivatization-Free LC/MRM</b> Nari Seo (Chungnam National University)
57	<b>Optimizing CESI 8000 Operation on High-Sensitivity ToF Platforms via a Newly Developed Enclosed Source with Controlled Emitter Positioning</b> Stanislav Beloborodov (SCIEX)
59	<b>Quantitative Analysis of Fat-Soluble Vitamins and Sterols in Preterm Human Milk</b> Ayeon Woo (Chungnam National University)
61	<b>GC-MS/MS-Based Multi-Metabolite Profiling for Authenticity Assessment of Saw Palmetto</b> Yumin Lee (Sogang University)
63	<b>Thermal- and Photoinduced Structural Transformations in Cd(II)-Based Metal–Organic Frameworks</b> Kyunghye Ju (Chungnam National University)
65	<b>Toward Rapid On-Site Hazard Identification: AI-Assisted Mechanism Analysis and Portable Mass Spectrometry for Chemical Accident Response</b> Dongyoung Lim (Sogang University)
67	<b>Elucidating the Role of Fucosylation in Cancer-Associated Fibroblasts (CAFs) of Gastric Cancer</b> Chae-Hyeon Lee (Chungnam National University)
69	<b>Physicochemical and Volatile Profiles of Bone Broth Supplemented with Roasted Insect Oils</b> Yu-Jeong Han (Sungshin Women's University)
71	<b>Optimizing Fragmentation Strategies for the Precise Mapping of Immunogenic Glycosylation Sites in Biopharmaceuticals</b> Juhui Baek (Chungnam National University)
73	<b>Hybrid Nanocomposite-Based Voltammetric Platform for Simultaneous Detection of Benzo[a]pyrene, Pyrene, and Fluorene in Particulate Matter</b> Fauzan Amin (Kyungpook National University)
75	<b>Maternal Metabolic Alterations Associated with Gestational PM2.5 Exposure Revealed by Urinary Metabolomics and Lipidomics</b> Jiwon Kim (Chung-Ang University)
77	<b>Molar Mass Determination of Collagen Peptides Using Solid Phase Extraction (SPE) Pretreatment Method</b> Hee-Jin Yoo (KBSI)
79	<b>HPLC-Based Quantitative Analysis of 1-Deoxynojirimycin (DNJ) in Food Matrices</b> Sung Won Kwon (Seoul National University)
81	<b>Analytical Characterization of Fatty Acid Profiles in Human Milk from Pakistan by GC</b> Changuk Lim (Chungnam National University)

## Poster Session II

Poster Number	Title and Presenter
2	<b>Colorimetric Strain Detection via Tunable LSPR Modulation in Magnetic Amorphous Photonic Structures</b> Minseo Seo (Chungnam National University)
4	<b>Ultra-Sensitive Metabolomic Profiling of Cerebrospinal Fluid by Salt-Tolerant Dual-Stacking Capillary Electrophoresis-Mass Spectrometry</b> Haruka Kuwagi (Kyushu University)
6	<b>Rapid and Sensitive Molecular Diagnostics Using Integrated Plasmonic Photothermal PCR and Carbon Nanotube FET Sensing</b> Wan-Jung Kim (Soon Chun Hyang University)
8	<b>Dimensionality-Dependent Solid-State Photoreactivity in Zn(II)-Based Coordination Assemblies</b> In-Hyeok Park (Chungnam National University)
10	<b>Development of a Sample Preparation Method for Total Pantothenic Acid Analysis in Beef by Isotope Dilution Liquid Chromatography-Tandem Mass Spectrometry</b> Kyuree Tae (KRISS)
12	<b>Integrated Metabolite Profiling of Ligusticum striatum DC. Across Developmental Stages by LC-MS/MS and HS-SPME/GC-MS</b> Tung Ninh Khac Thanh (Chungnam National University)
14	<b>Plasma Metabolomic and Proteomic Alterations Reveal Molecular Mechanisms of Heatstroke Pathophysiology</b> Petra Majerova (Institute of Neuroimmunology of Slovak Academy of Sciences)
16	<b>Lipidomic Network in the Cortex and Hippocampus of the 5xFAD Mouse</b> Yun Jae Cha (Seoul National University)
18	<b>Characterizing Kinase Signaling Networks Driven by ATP6AP1 in Triple-Negative Breast Cancer</b> Yun Jeong Seo (Chungnam National University)
20	<b>An Electrochemical Study of Bimetal-Doped Nanozymes with Enhanced Alkaline Phosphatase-Like Activity</b> Simegnsh Bekele Dekebo (Kyungpook National University)
22	<b>A Top-Down Sequencing Strategy for Trace N-Glycans Using Dual-Stacking CE-LIF with Online Exoglycosidase Digestion</b> Naru Iwasaki (Kyushu University)
24	<b>Label-Free Quantitative Proteomics Reveals Stress-Specific Adaptive Metabolic Network Remodeling in Staphylococcus aureus</b> Woochan Jeong (Chungnam National University)
26	<b>Chelation-Assisted MALDI-MS Imaging Reveals Oxaliplatin Penetration in Peritoneal Tissue</b> Chaeun Lee (Chung-Ang University)
28	<b>Plasmonic Heating-Driven Portable LAMP System Using a Reusable AuNR@PDMS Film for Point-of-Care Testing</b> Geon Park (Soon Chun Hyang University)
30	<b>Structural Diversity and Photoinduced [2+2] Cycloaddition in Zinc(II)-Based Metal-Organic Frameworks</b> Jisu Lim (Chungnam National University)
32	<b>Enhancing Multimedia Environmental Fate Modeling of PFAS Using a Machine Learning-Based Consensus QSAR Model</b> Yongbin Lee (Sogang University)
34	<b>Changes of Kynurenine Pathway Metabolites During the Heatstroke</b> Andrej Kovac (Institute of Neuroimmunology of Slovak Academy of Sciences)
36	<b>Glycomic Profiling for Quality Assessment and Validation of Patient-Derived Colorectal Cancer Organoids Using NanoLC/MS</b> Sumin Jung (Chungnam National University)
38	<b>Dynamic Enzyme-Controlled Plasmonic Growth Strategy for Multicolorimetric Quantification of Total Dithiocarbamate Pesticides in Food</b> Mohamed R. Elmasry (Soon Chun Hyang University)
40	<b>Liquid Extraction Surface Analysis-Capillary Electrophoresis/<sup>2</sup>C<sup>4</sup>D for the Simultaneous Analysis of Small Ions on Lithium-Battery Anode Surface</b> Sunkyung Jeong (Seoul National University)

42	<b>Hydrogen Evolution Reaction in Nanoconfined Electrodes</b> Ga Ran Kim (Chungnam National University)
44	<b>Analysis of Chelating Agents after Complexation with Nickel Using Capillary Electrophoresis</b> Jihye Kim (KAERI)
46	<b>Electrochemical Characterization of Nanoporous Electrodes for High-Performance Supercapacitors</b> Gyo Seong Hwang (Chungnam National University)
48	<b>Analytical Performance Evaluation of IMR-MS for Representative Airborne Molecular Contaminants in Semiconductor Cleanroom Environments</b> Chae-Eun Son (Young In ACE)
50	<b>Beyond the Apex: Spatial Metabolic Specialization in Antarctic Mosses</b> Fatima Tuz Zahra (Kyungpook National University)
52	<b>Mapping Alkaloids with Mass Spectrometry Imaging: Application of Spatial Distribution in Medicinal Plants and Biological Samples</b> Huida Guan (Shanghai University of Traditional Chinese Medicine)
54	<b>Nanostructured Polymer/Metal Oxide Hybrid as a Platform for Electrochemical Aptasensing of Amino Acids</b> Jiaran Lu (Kyungpook National University)
56	<b>Isotope Dilution Liquid Chromatography-Tandem Mass Spectrometry Analysis for Vitamin B<sub>12</sub> in Infant formula</b> Hyeonwoo Yu (KRISS)
58	<b>Single-Crystal-to-Single-Crystal Photodimerization in Metal–Organic Frameworks: Structural Insights from Crystallographic Analysis</b> Gyeongun Ahn (Chungnam National University)
60	<b>Ship Repair Facilities as Major Point Sources of Emerging Organic Contaminants in Marine Sediments of a Global Maritime Hub</b> Imran Shafique (Kyungpook National University)
62	<b>Single-Cell N-Glycome Analysis via Capillary Electrophoresis with Femtomolar Sensitivity</b> Chenchen Liu (Kyushu University)
64	<b>Three-Phase Direct Immersion-Single Drop Microextraction Coupled with a Commercial Capillary Electrophoresis Instrument</b> Sunkyung Jeong (Seoul National University)
66	<b>FeSe Quantum Dots: Scalable Fabrication and Biosensing Performance</b> Hyojin Kang (Chungnam National University)
68	<b>Monitoring of Glyphosate Bioremediation in Soils: Combining Molecularly Imprinted Polymers (MIP) with Indirect CE-UV Analysis</b> Reine Nehmé (Université d'Orléans)
70	<b>From Thermodynamic Theory to Liquid-Liquid Microextraction through Machine Learning-Guided Design of Hydrophobic Deep Eutectic Solvents</b> Jingyan Chen (Sungkyunkwan University)
72	<b>An Efficient Column-Switching HPLC Method for the Trace Determination of Cholecalciferol (Vitamin D3) in Complex Matrices</b> Jisu Im (Young In Chromass)
74	<b>Chemometrically Assisted Optimization of a Chiral HPLC Method for the Separation of Talazoparib and Its Enantiomer on a Chiralpak IC Column</b> Duygu Yeniceli (Anadolu University)
76	<b>Aging-Driven N-Glycome Variations in Coenorhabditis Elegans Using LC/MS/MS</b> Myung Jin Oh (Chungnam National University)
78	<b>Analysis of Heavy Metals and Trace Elements in Mussel Tissue Using the ACE 3000 ICP-MS</b> Seonyoung Heo (Young In ACE)
80	<b>Interannual Variation in Compositional and Volatile Profiles of Korean Potato Cultivars Using Multivariate Analysis for Origin Classification</b> Yeeun Lee (Sungshin Women's University)

# MSB 2026 Conference

★ Free Workshop Sessions

## Analytical Science Workshop Series

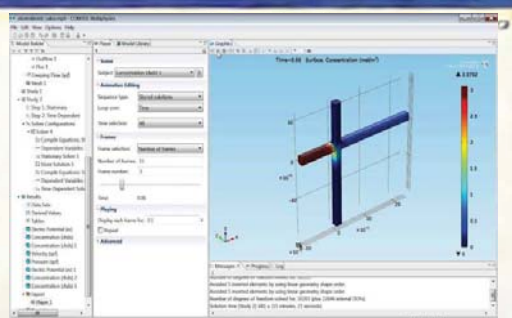
Computational Modeling • Gas Chromatography • Liquid Chromatography

May 10, 13:00 – 16:30

13:00 – 16:30

### Computational Modeling of Electrokinetic Separations by COMSOL Software

Prof. Bohuslav Gaš



13:00 – 14:30

### Gas Chromatography, from Beginner to Expert in 90 Minutes

 **YOUNG IN**  
Chromass



15:00 – 16:30

### Basic Principles and Applications of Liquid Chromatography

 **Agilent**



# Workshop: Korean Language & Culture Experience

Read Hangul (Korean alphabet) in 20 Minutes

MSB2026 Conference Workshop  
CNU International Program  
**Korean Language & Culture Experience**  
for International Professors & Researchers

## Discover Hangul & Korean Culture

No prior knowledge required!

📍 May 10th (Sun) • 13:00-14:30 (Session 1)  
• 15:00-16:30 (Session 2)

### Program Schedule (Total 3 Hours)

#### Session 1 (1.5h)

- **First Steps in Hangul**  
Korean Consonants & Vowels
- Learn basic Hangul
- Practice pronunciation
- Read & write Korean
- Interactive activities

#### Session 2 (1.5h)

- **Korean Calligraphy & Culture**
- Write Korean words
- Try Korean calligraphy
- Learn with K-pop
- Share together

### Learning Outcomes

- Read & write Hangul
- Practice Korean sounds
- Experience Korean culture

### Why Join?



Beginner Friendly



Hands-On Fun



Cultural Immersion



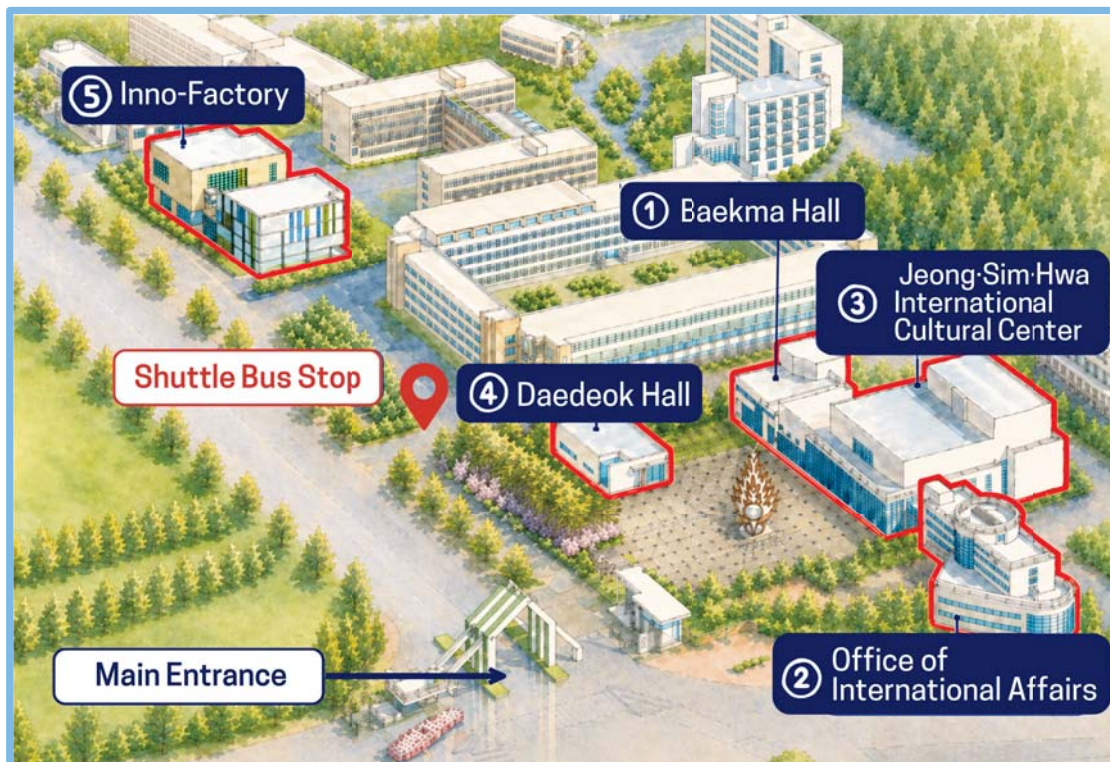
Memorable Experience



Experience the Beauty of Hangul

Learn • Write • Enjoy Korean Culture

## Venue Map



- ① **Baekma Hall** - Main Hall [Plenary Lecture Session]
- ② **Office of International Affairs**  
- Session Hall 1-3, Presentation Upload Room [209-1]
- ③ **Jeong-Sim-Hwa International Cultural Center**  
- Exhibition Booth & Poster Session
- ④ **Daedeok Hall** - Dining Hall
- ⑤ **Inno-Factory**
  - Welcome Reception
  - Corporate-sponsored Workshop



ID: MSB2026A  
PW: msb2026@a

ID: MSB2026B  
PW: msb2026@b

## Dining Venue

**Breakfast** Daedeok Hall (07:30~09:00)

**Lunch** YOUNGTOP Hall (11:40~13:00)

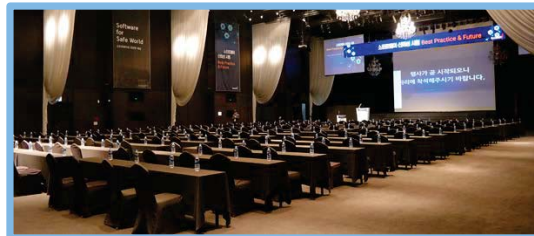
 Walking Route (20min)



### Shuttle Bus Schedule

Departure (Bus stop-YOUNGTOP Hall)	<b>11:40</b>
Return (YOUNGTOP Hall-Bus stop)	<b>12:30</b>

**Banquet** ICC Hotel (May 12, 19:00~21:00)

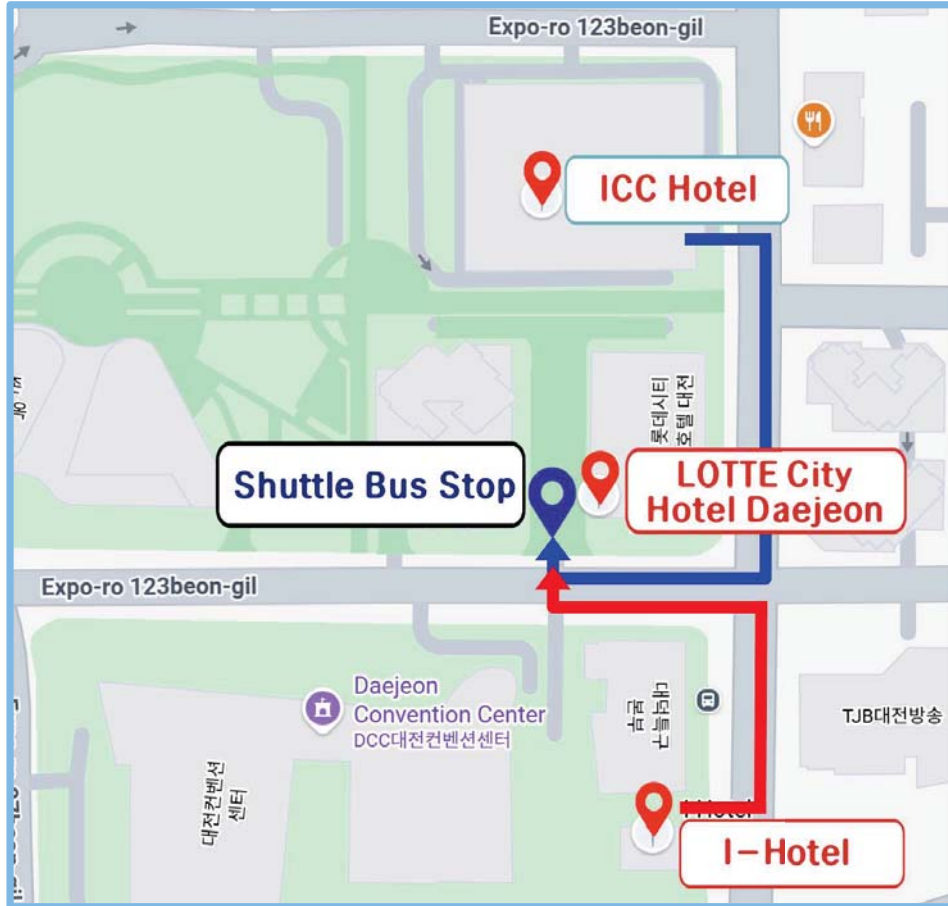


### Shuttle Bus Schedule

Departure (Bus stop-ICC Hotel)	<b>18:10</b>
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## Shuttle Service: CNU ↔ Hotel



Route	May 10 (Sun)	May 11-12 (Mon-Tue)	May 13 (Wed)
Hotel → CNU Bus Stop	<b>12:00</b>	<b>07:30</b>	<b>07:30</b>
	<b>15:30</b>	<b>08:15</b>	<b>08:15</b>
CNU Bus Stop → Hotel	<b>20:10</b>	<b>18:10</b>	-

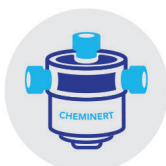


## Taxi Service: CNU ↔ Hotel

- Staff assist with taxi boarding in the lobby of Lotte City Hotel
- Taxis depart with four passengers, regardless of party

# FOR HIGH-RESOLUTION APPLICATIONS LOOK TO VICI.

SCAN ME



U/HPLC  
CHEMINERT  
VALVES



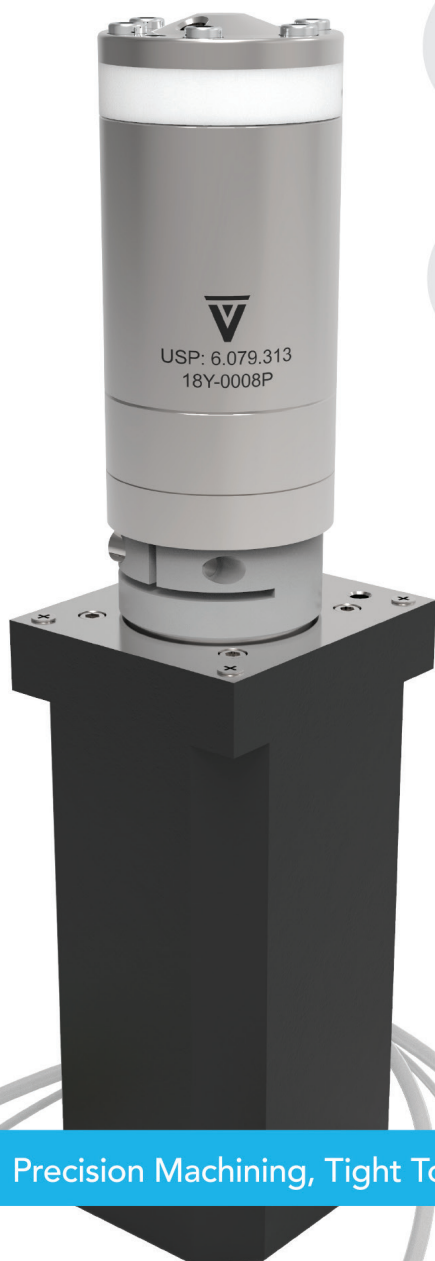
SYRINGE-FREE  
LIQUID HANDLING  
PUMPS



HIGH & LOW  
PRESSURE  
LC FITTINGS



NITROGEN, HYDROGEN  
& ZERO AIR GAS  
GENERATORS



Precision Machining, Tight Tolerances, & Premium Quality

# Healthier Future for Humanity with Genomic Technology

**BIONEER**  
Innovation • Value • Discovery

BIONEER Global Center

**바이오니아는 1992년, 국내 최초로 올리고뉴클레오타이드 합성 서비스와  
내열성 DNA 중합효소 등 유전자 증폭 연구에 필수적인 시약들을 상용화하여  
'바이오 벤처 1호'로서 빛나는 출발을 이루었습니다.**

## 34년, 혁신과 신뢰로 글로벌 리더로 성장

지난 34년간 끊임없는 연구개발 투자를 통해 혁신적인 기술을 개발하고, 고품질의 제품과 신속한 서비스를 제공하며 고객과의 신뢰를 쌓아왔습니다. 이러한 노력들은 결실을 맺어 바이오니아는 이제 글로벌 시장에서 인정받는 리더 기업으로 성장하고 있습니다.

## 생명공학 연구 발전을 위한 최첨단 솔루션 제공

바이오니아는 PCR, Real-time PCR, Gene Synthesis 등 다양한 분야에서 세계적인 경쟁력을 갖추고 있으며, 고객 맞춤형 연구 지원 서비스를 통해 고객들의 연구 성공을 위한 최고의 파트너가 되고 있습니다.



## Life Science Research

### DNA/RNA Amplification

- PCR, RT-PCR, qPCR

### DNA/RNA Preparation

- Spin Column, Magnetic Bead

### Protein Synthesis & Purification

- Synthesis, Purification
- Protein Service

### Instruments & Devices

- Conventional PCR
- Real-time PCR
- Protein Synthesis and Purification
- DNA/RNA Preparation
- Electrophoresis
- Microbial Culture
- Vortexing & Spin-down

### Custom Services

- Oligonucleotide (DNA/RNA)
- Sequencing
- Gene Synthesis
- Gene Expression Analysis
- Yeast Genome-wide Functional Analysis
- Cloning
- MALDI-TOF MS Analysis
- LC/HR MS Analysis

채널 추가 / 팔로우 하셔서 바이오니아의 다양한 소식을 빠르게 받아보세요!



bioneer\_lifescience



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바이오니아

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#### 바이오니아 글로벌센터

대전광역시 유성구 테크노2로 71  
Tel : 1588-9788  
E-mail : sales@bioneer.co.kr

#### 바이오니아 대덕센터

대전광역시 대덕구 문평서로 8-11  
Tel : 1588-9788  
E-mail : sales@bioneer.co.kr

#### 바이오니아 R&D센터

경기도 성남시 분당구 대왕판교로 700  
코리아바이오파크 B동 702호  
Tel : 031-628-0500  
E-mail : sales@bioneer.co.kr



## On-demand gas & liquid N<sub>2</sub> generators for **cryogenic & laboratory** applications

The PEAK International Group are leading manufacturers in on-demand nitrogen and hydrogen lab gas and liquid nitrogen generators.

With over almost 30 years' experience, offices in over 20 overseas regions and more than 700 staff globally, we put our customers at the heart of everything we do. We have direct operations in over 25 countries and direct, on-site field service throughout the globe to bring you unrivalled peace of mind.

**Contact us today to discover more!**



# KBSI 다목적방사광가속기 구축사업단

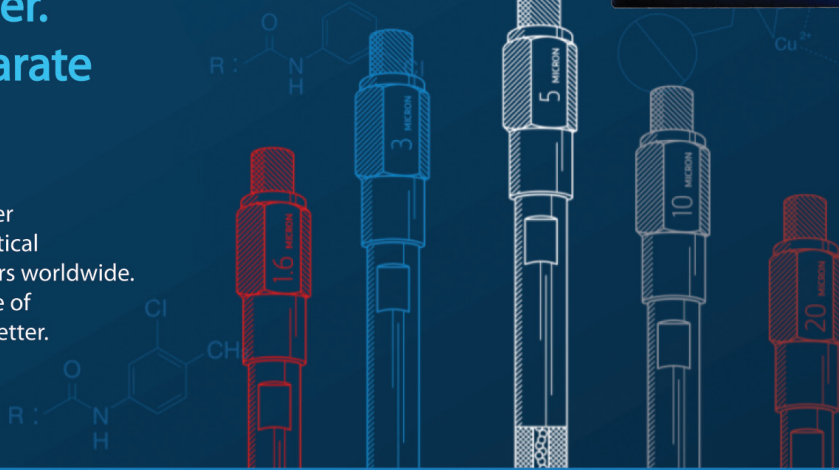
## Construction Project of the Multipurpose Synchrotron Radiation Accelerator





# One trusted partner. More ways to separate optical isomers.

Daicel Chiral Technologies is the most trusted source of optical isomer separation solutions for pharmaceutical companies and academic researchers worldwide. Chiral chromatography is at the core of our business—and no one does it better.



## Daicel Chiral columns Chiral Screening & Purification Service



### Chiral 분취

- 10mg ~ 100kg 까지 Chiral 분취
- 빠른 분취 가능 (Prep LC, SFC, SMB)



### Chiral 분석서비스

- Method Development for Chiral Separation
- Chiral Screening



### Impurity Standards

- US-FDA 승인 Chiral Impurity Standards
- 13C labeled Standards

**Equipment Capacity**

HPLC mg-kg	SFC mg-kg	SMB kg-hundreds kg
Ø2-5cm	Ø2-3cm	Ø5cm
Ø2-5cm	Ø2-3cm	GMP Ø2-7.5cm
Ø2-5cm	Ø3-5cm	
Ø5-10cm	Ø3-5cm	
Ø5-10cm	Ø5-10cm	
Ø11cm		

**Column screening**

Batch HPLC or SFC (mg-kg) → SMB (>5kg)

Loading  
Solubility  
Stability

**Chiral Screening Service**

**Recommended HPLC condition of CTX**

Mobile phase: [Summary]

Column: [Summary]

Flow rate: [Summary]

Sample solution: [Summary]

Fig. 1. Buffer

Fig. 2. Sample

[Summary]

### Isolation / Characterization / Synthesis

- Expertise in isolation of critical impurities <0.1%
- Assured Quality

### CoA FROM US-FDA APPROVED ANALYTICAL LAB



# 대한민국 과학기술 서비스 산업의 개척자 영인그룹

## Life Science

생명공학연구기기  
임상진단의료기기  
진단용키트 및 시약

영인과학 | 영인랩플러스 | 영인엠텍  
영인바이오젠 | 영인에이스



## Lab Consulting

실험실 설계  
국내외 연구 실험실 구축  
실험실 리모델링

영인에스엔

## Analytical Instruments

정밀분석기기

영인과학 | 영인랩플러스 | 영인크로매스 | 영인엠텍  
영인모빌리티 | 영인바이오젠 | 영인크롬텍  
영인에스티 | 영인에이스 | 영인에이티



## Research Consumables

연구소모품, 시약  
실험실 일반장비

영인과학 | 영인랩플러스  
영인크로매스 | 영인바이오젠  
영인에스티 | 영인크롬텍 | 영인엠텍



## Rental Business

분석장비 및  
기타산업용 장비렌탈

솔루션렌탈

**영인그룹**은 1976년 창립 이래 지난 50년간 정밀 분석기기의 판매·기술지원·개발에 주력하며, 우리나라 과학기술 서비스 산업을 개척하고 선도해 왔습니다.

세계 최고 수준의 글로벌 파트너십과 영인만의 독창적인 고객지원 프로그램을 결합하여, 고객의 연구 환경에 최적화된 통합 분석 솔루션을 제공하고 있습니다. 현재 12개 관계사와 4개 지역 거점법인을 포함, 총 16개 사의 유기적인 네트워크를 구축한 과학기술 전문 기업으로서 지속적인 성장을 실현하고 있습니다.

## 영인그룹 16개 관계사 현황

영인과학, 영인랩플러스, 영인크로매스, 영인에스티, 영인에스엔, 솔루션렌탈, 영인에이스, 영인모빌리티, 영인바이오젠, 영인에이티, 영인크롬텍, 영인엠텍, 와이앤유사이언스, 와이앤와이사이언스, 와이앤비사이언스, 와이앤지사이언스

영인그룹은 방대한 네트워크를 바탕으로 다양한 산업 분야에 첨단 과학기술을 확산·보급하는데 주력하고 있습니다. 각 관계사별 특화 사업 영역과 주요 제품군, 전문 사업 내용은 아래 QR 코드를 통해 상세히 확인하실 수 있습니다.



영인그룹 관계사  
소개 자료

**YOUNG IN**



과학기술로 사회와 미래에 기여한다

# 영인그룹

최적의 연구 환경을 위한 통합 분석 솔루션

