Conference Program

AOMSC 2025
June 22–25, 2025 @ Ishigaki, Okinawa, Japan

MSJ
Since 1953
The Mass Spectrometry Society of Japan

AOMSC 2025

The 10th Asia-Oceania Mass Spectrometry Conference

Conference Program

From Bench to Beach

Ishigaki Island, Okinawa, Japan – June 22–25, 2025

The Mass Spectrometry Society of Japan (MSSJ)

Welcome address from the Chair of the 10th AOMSC

The 10th Asia-Oceania Mass Spectrometry Conference (AOMSC) will be held at the ANA Intercontinental Ishigaki Resort, Ishigaki Island, Okinawa, Japan, from June 22 to 25, 2025, hosted by the Mass Spectrometry Society of Japan.

The AOMSC is the largest international conference on mass spectrometry and related topics in the Asia-Oceania region and has been held every other year since its first meeting in Tsukuba, Japan, in 2010, although the 9th conference was unfortunately postponed in 2021 due to the global Covid19 pandemic, in 2023, the 9th meeting was successfully held in Jeju, Korea. Over the past 15 years, the AOMSC has played a pivotal role in providing a unique platform for sharing research results and experiences through sessions on a wide variety of topics and a young scientists' forum. Continuing this tradition, the 2025 conference will be held in Ishigaki, Japan's southernmost subtropical island, providing a venue for sharing discoveries and breakthroughs in mass spectrometry. The venue is located on a beautiful beach, and the main theme of this year's conference is "From Bench to Beach". We hope that participants will be able to escape from the confines of their usual laboratories and engage in lively discussions in a unique culture blessed with nature.

Yasushi Ishihama (Chair of AOMSC 2025 committee, Kyoto University)

Local organizing committee

Conference Chair

- *Yasushi Ishihama – Kyoto University*

Local Organizing Committee

- *Jun Adachi – National Institute of Biomedical Innovation, Health and Nutrition*
- *Takeshi Bamba – Kyushu University*
- *Tomoya Kinumi – National Institute of Advanced Industrial Science and Technology*
- *Masayuki Kubota – Waters Corporation*
- *Masamitsu Maekawa – Tohoku University*
- *Masahiro Miyashita – Kyoto University*
- *Takaya Satoh – JEOL Ltd.*
- *Kanako Sekimoto – Yokohama City University*
- *Naoyuki Sugiyama – National Cerebral and Cardiovascular Center*
- *Hirochika Sumino – The University of Tokyo*
- *Michisato Toyoda – The University of Osaka*
- *Atsushi Yamamoto – Tottori University of Environmental Studies*

International Advisory Committee

- *Stephen Blanksby (Australia)*
- *William Donald (Australia)*
- *Yet-Ran Chen (Taiwan)*
- *Man-Ho Choi (South Korea)*
- *Yasushi Ishihama (Japan)*
- *Yuanjiang Pan (China)*
- *Andy Chi-Kit Siu (Hong Kong)*
- *Wei Wu (Singapore)*

History of AOMSC

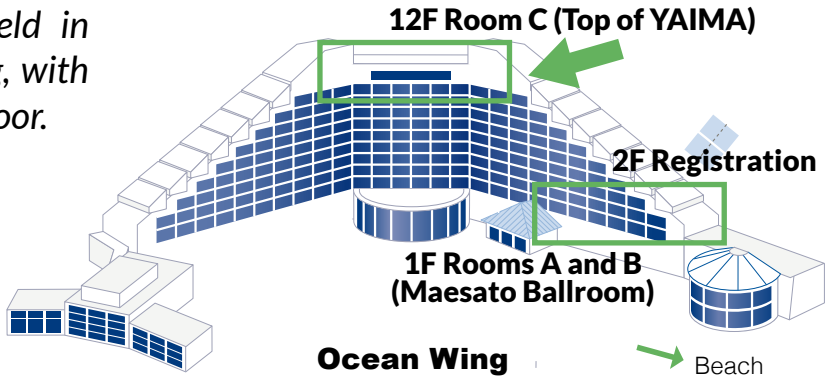
Year	Hosting Society	Chariperson(s)	City
2010*	MSSJ, Mass Spectrometry Society of Japan (since 1953)	Prof. Mitsuo Takayama	Tsukuba
2011	KSMS, Korean Society for Mass Spectrometry (since 2004)	Dr. Jong Shin Yoo	Busan
2012	MSSJ	Prof. Yoshinao Wada	Kyoto
2013	TSMS, Taiwan Society for Mass Spectrometry (since 2003)	Prof. Yu-Ju Chen	Taipei
2014	CMSS, Chinese Mass Spectrometry Society (Since 1980)	Prof. Huwei Liu	Peking
2015	ANZSMS, Australia and New Zieland Society for Mass Spectrometry (since 1970)	Prof. Stephen Blanksby	Brisbane
2017	SSMS, Singapore Society for Mass Spectrometry (since 2005)	Prof. Maxey Chung	Singapore
2020	HKSMS, Hong Kong Society for Mass Spectrometry (since 1998)	Prof. Ivan Chu	Macau
2023	KSMS	Dr. Byungjoo Kim and Prof. Han Bin Oh	Jeju
2025	MSSJ	Prof. Yasushi Ishihama	Ishigaki

*Co-founders of the AOMSC: (1)Prof. Yoshinao Wada (MSSJ), (2) Prof. Seung Koo Shin (KSMS), and (3) Prof. Jentaie Shiea (TSMS).

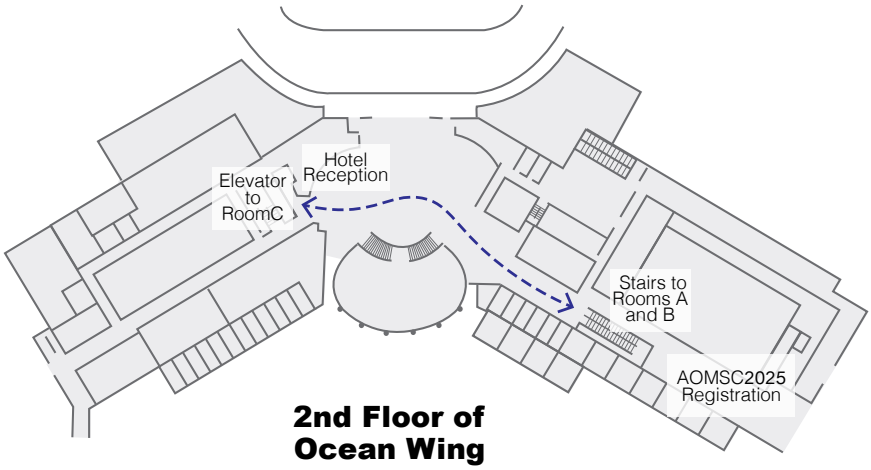
Conference venue and floor plans

ANA InterContinental Ishigaki Resort

AOMSC2025 will be held in the Ocean Wing building, with registration on the 2nd floor.



To go to Room C, use the stairs to the 2nd floor, pass in front of the hotel reception, and take the elevator to the 12th floor.



Sponsors of the AOMSC2025

Platinum sponsors

SHIMADZU
Excellence in Science

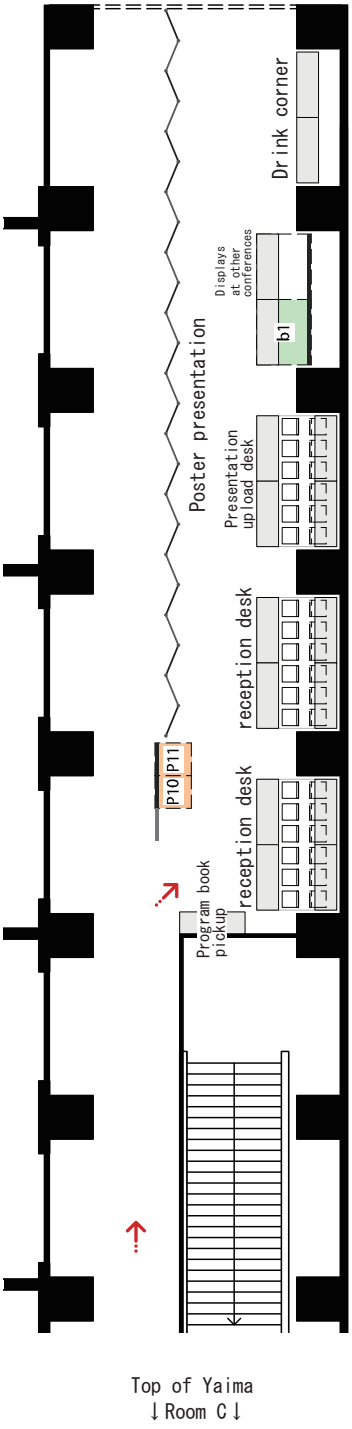
ThermoFisher
SCIENTIFIC

Gold sponsors

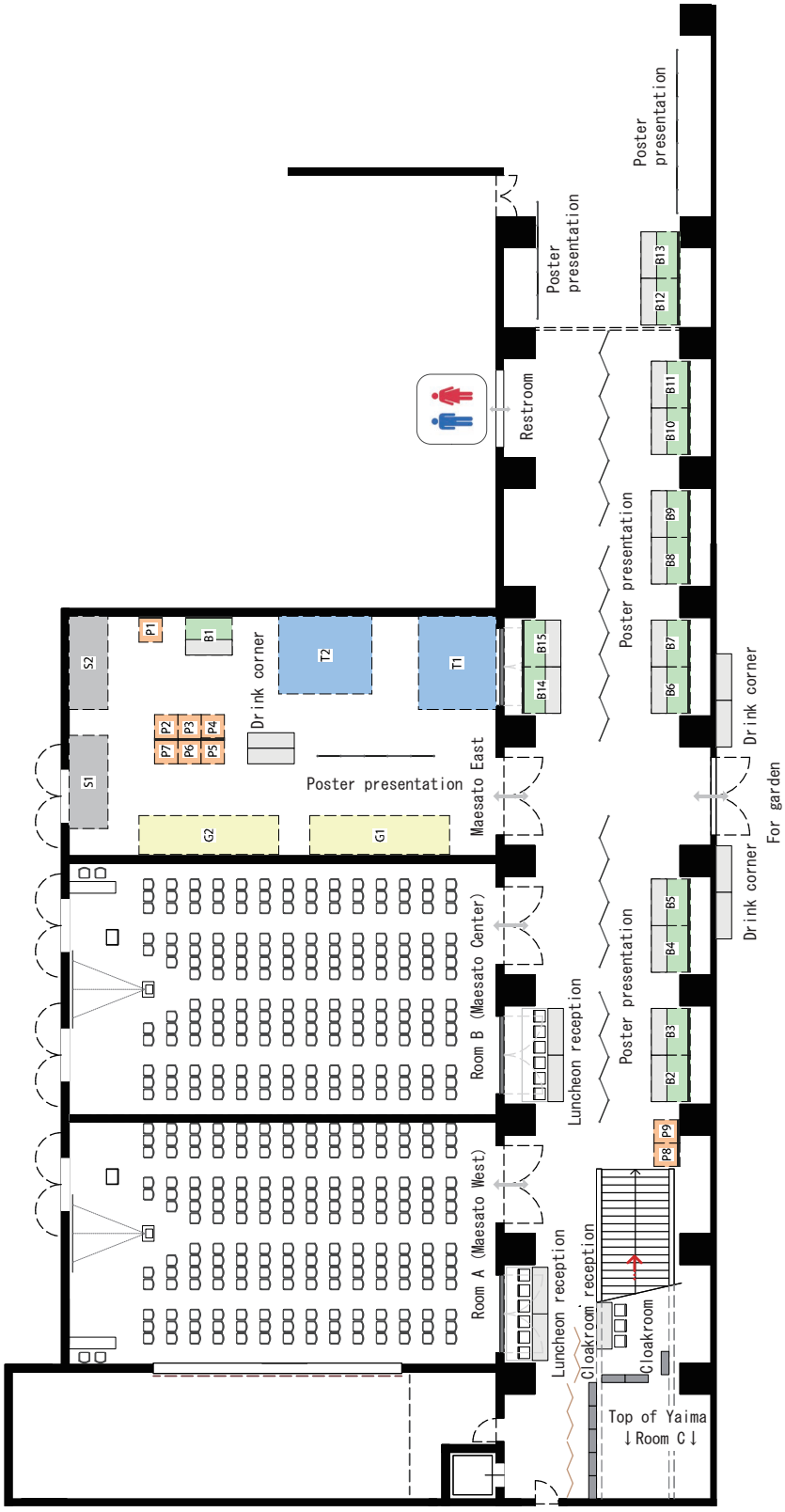
Waters™

SCIEX
The Power of Precision

Exhibition booth information



Ocean Wing 2F



Ocean Wing 1F (Maesato/Foyer)

NO	Sponsor	ID	Company Name	NO	Sponsor	ID	Company Name
1	Platinum	T1	Shimadzu Corporation	17	Exhibition	B11	AMR, Inc.
2	Platinum	T2	Thermo Fisher Scientific Pte Ltd	18	Exhibition	B12	IonOpticks
3	Gold medal	G1	Waters Corporation	19	Exhibition	B13	Protein Metrics
4	Gold medal	G2	SCIEX	20	Exhibition	B14	Yokogawa Electric Corporation
5	Silver medal	S1	Bruker Japan K.K.	21	Exhibition	B15	Kanomax Analytical Inc.
6	Silver medal	S2	Agilent Technologies, Inc.	22	Poster	P1	Genedata KK
7	Exhibition	B01	Genedata KK	23	Poster	P2	Innovation Science Co., Ltd.
8	Exhibition	B02	Bioinformatics Solutions Inc. / INFOCOM CORPORATION	24	Poster	P3	TAIYO NIPPON SANSO Corporation
9	Exhibition	B03	Nikkyo Technos Co.,Ltd.	25	Poster	P4	Beforce Ltd.
10	Exhibition	B04	CIL/Otsuka	26	Poster	P5	TERUTATSU SHOUJI CORPORATION
11	Exhibition	B05	PEAK SCIENTIFIC	27	Poster	P6	MITSUI KNOWLEDGE INDUSTRY CO., LTD.
12	Exhibition	B06	GL Sciences inc.	28	Poster	P7	Ricoh Company, Ltd.
13	Exhibition	B07	JEOL Ltd.	29	Poster	P8	Bioinformatics Solutions Inc.
14	Exhibition	B08	M&S Instruments Inc.	30	Poster	P9	SpectralWorks Limited
15	Exhibition	B09	LECO Corporation	31	2F Exhibition	b1	SPM, Kyoto University, Graduate School of Pharmaceutical Sciences
16	Exhibition	B10	Evosep				

General information

Reception Desk

Located on the ocean wing 2F.

Sunday, June 22 (Day1), 11:00-18:15

Monday, June 23 (Day2), 8:00-19:00

Tuesday, June 24 (Day3), 8:00-19:00

Wednesday, June 25 (Day4), 8:00-17:15

Instructions for Oral Presenters

Plenary lecture: 45 or 60 min (incl. introduction and questions)

Oral session: 15 or 30 min (incl. introduction and questions)

Young researchers' session: 10 or 15 min (incl. introduction and questions)

Oral presentations will also be streamed via ZOOM. This is for when a venue cannot accommodate all of the audience. Please note that ZOOM will be used only for distribution of on-site lectures. Outside speakers and Q&A sessions are not available via on-line.

All presentations will be made using the equipped computers (Windows 11) at the oral presentation rooms with Microsoft PowerPoint/Adobe Acrobat Reader.

Please note that presentations cannot be made using your individual PC.

On-site upload:

Please bring your presentation file as .pptx files for PowerPoint or PDF files on a USB memory stick to the presentation upload desk at least one day prior to the presentation. Presentations should be previewed at that time. The upload desk will be located near the reception desk.

On-line upload:

Presenters can also upload their presentation files via online. Please upload from the URL provided to each presenter via email.

Please note that the network connection is likely to be unstable due to the limited capacity of Wi-Fi connection in venue.

Instructions for Poster Presenters

Poster Set-up

The size of poster that can be mounted on the poster board is 86 cm wide and 120 cm high (for A0 size). It is recommended that the poster presenters bring their own mounting materials, Velcro Tape. These materials also will be provided at the poster session venue by the organizing committee.

Posters must be in place throughout the scheduled day. The poster number will be attached at the top of the boards. Afternoon poster sessions may be held outside in the 1F Garden, weather and time permitting.

Sunday, June 22 (Day1): 13:00-18:15

(For welcome mixer participants, the poster removal time is preferably at 20:00.)

Monday, June 23 (Day2): 8:15-19:00

Tuesday, June 24 (Day3): 8:15-19:00

(For banquet participants, the poster removal time is preferably at 21:00.)

Wednesday, June 25 (Day4): 8:15-17:15

After the closing time, the organizing committee may dispose of the posters that remained on the board.

Poster Attendance

Presenters should attend the designated core times listed below

Sunday, June 22 (Day1)

1P-PM, 16:15-17:15 (Odd), 17:15-18:15 (Even)

1P-LB (Late-breaking poster) 16:15-17:15 (Odd), 17:15-18:15 (Even)

TooLatePosterOutside 16:15-17:15

Monday, June 23 (Day2)

2P-AM, 9:30-10:30 (Odd), 10:30-11:30 (Even)

2P-PM, 17:00-18:00 (Odd), 18:00-19:00 (Even)

Tuesday, June 24 (Day3)

3P-AM, 9:15-10:15 (Odd), 10:15-11:15 (Even)

3P-PM, 17:00-18:00 (Odd), 18:00-19:00 (Even)

Wednesday, June 25 (Day4)

4P-AM, 9:15-10:15 (Odd), 10:15-11:15 (Even)

4P-PM, 15:15-16:15 (Odd), 16:15-17:15 (Even)

Important notice regarding photo/video recording at the venue

The copyright of the presentation belongs to the presenter.

If you wish to film or record a presentation, please be sure to obtain the presenter's permission.

It is prohibited to share recorded content on the Internet, including social networking services.

Secondary use by co-organizers of corporate sessions (Luncheon seminar, Teatime seminar, Exhibition booth) is allowed with the permission of the presenter.

Social Events

Welcome mixer

Sunday, June 22, 18:15-20:00

Pre-registration is not required. All are welcome!

Banquet

Tuesday, June 24, 19:00-21:00

Pre-registration only, tickets are already sold-out.

Awarding Ceremony and Closing

Wednesday, June 25, 17:15-18:00

Cloak room

The cloakroom is located on the 1st floor outside the Room A.

Opening hours:

Sunday, June 22 (Day1), 11:00-20:00

Monday, June 23 (Day2), 8:00-19:00

Tuesday, June 24 (Day3), 8:00-21:00

Wednesday, June 25 (Day4), 8:00-18:00

Conference Program and Abstracts

https://www.mssj.jp/conf/73/program.html

Time Table The 73rd Annual Conference on Mass Spectrometry (2025)／AOMSC2025

Day 1, June 22 (Sunday)　Registration: Ocean Wing 2nd floor from 11 am.

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Room A **Maesato West** **Ocean Wing 1st Floor**		**9:00 - 11:30** **Young Scientist Forum (closed)**		**11:30 - 12:00** **YSF public session co-hosted by MSSJ-KSMS young researcher exchange program**		**13:00 - 13:40** **MSSJ General Meeting** **(Japanese)**	**13:50 - 14:50** **MSSJ Award Ceremony Award Lecture** **1-AW** **(in Japanese)	**15:00 - 15:10** **Opening** **15:10 - 16:10** **Plenary I** **1-PL-1510** Dr. Kengo Suzuki (Euglena Co., Ltd.)					
Room B **Maesato Center** **Ocean Wing 1st Floor**							Chair: Y. Ishihama	Chair: M. Toyoda					
Room C **Top of Yaima** **Ocean Wing** **12th Floor**													
Poster & Exhibition **Maesato East, Foyer** **Ocean Wing** **1st & 2nd Floor**						**13:00 - 20:00** **Exhibitions by Sponsors**			**16:15 - 17:15** **Poster 1P-PM** **Poster 1P-LB** Core Time (Odd Number)	**17:15 - 18:15** **Poster 1P-PM** **Poster 1P-LB** Core Time (Even Number)	**18:15 - 20:00** **Welcome Mixer**		
Garden													

Time Table The 73rd Annual Conference on Mass Spectrometry (2025)／AOMSC2025

Day 2, June 23 (Monday)　Registration: Ocean Wing 2nd floor from 8 am.

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45
Room A **Maesato West** **Ocean Wing 1st Floor**	**8:30 - 9:30** **Plenary II** **2-PL-0830** Prof. Akhilesh Pandey (Mayo Clinic)				**11:40 - 12:55** **Oral 2A-O1** "Current Issues in Polymer Material Characterization and Recent Approaches with Mass Spectrometry" Chair: T. Satoh, S. Yamane	**13:00 - 14:00** **Luncheon Seminar** **2A-L-1300** Thermo Fisher Scientific	**14:10 - 15:25** **Oral 2A-O2** "AOMSC Special Session" Chair: T. Kinumi		**15:40 - 16:55** **Oral 2A-O3** "Frontiers in mass spectrometry imaging - Applictions-" Chair: S. Shimma				
Room B **Maesato Center** **Ocean Wing 1st Floor**	Chair: Y. Ishihama				**11:40 - 12:55** **Oral 2B-O1** "Young researcher session 1" Chair: K. Nakatani C.-J. Chen	**13:00 - 14:00** **Luncheon Seminar** **2B-L-1300** Waters Corporation	**14:10 - 15:25** **Oral 2B-O2** "Environmental pollution and its effects evaluation" Chair: A. Yamamoto, R. Liu		**15:40 - 16:55** **Oral 2B-O3** "Fundamentals & emerging applications of ionization and gas phase ion processes - part I" Chair: L.C. Chen, K. Sekimoto				
Room C **Top of Yaima** **Ocean Wing** **12th Floor**					**11:40 - 12:55** **Oral 2C-O1** "Clinical mass spectrometry and reverse translational research -From Diagnostic and treatment application to patological analysis - Part I" Chair: H.-W. Liao, M. Maekawa	**13:00 - 14:00** **Luncheon Seminar** **2C-L-1300** BRUKER	**14:10 - 15:25** **Oral 2C-O2** "Clinical omics / biomarker development" Chair: Y.-J. Chen, P. Hoffmann		**15:40 - 16:55** **Oral 2C-O3** "Advanced technology in proteomics" Chair: M.-H. Lin, N. Sugiyama				
Poster & Exhibition **Maesato East, Foyer** **Ocean Wing** **1st & 2nd Floor**		**9:30 - 10:30** **Poster 2P-AM** Core Time (Odd Number)	**10:30 - 11:30** **Poster 2P-AM** Core Time (Even Number)	**8:15 - 19:00　Poster Display** **8:15 - 19:00　Exhibitions by Sponsors**						**17:00 - 18:00** **Poster 2P-PM** Core Time (Odd Number)	**18:00 - 19:00** **Poster 2P-PM** Core Time (Even Number)		
Garden										**17:00 - 19:00** **Poster (2P-AM & 2P-PM)**			

Time Table The 73rd Annual Conference on Mass Spectrometry (2025)／AOMSC2025

Day 3, June 24 (Tuesday)　Registration: Ocean Wing 2nd floor from 8 am.

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
Room A **Maesato West** **Ocean Wing 1st Floor**	**8:15 - 9:15** **Plenary III** **3-PL-0815** Prof. Kini R. Manjunatha (National University of Singapore)			**11:25 - 12:40** **Oral 3A-O1** "Mass spectrometry in therapeutic modality research-1" Chair: S. Uchiyama N. Kawasaki	**12:45 - 13:45** **Luncheon Seminar** **3A-L-1245** SCIEX	**13:55 - 15:10** **Oral 3A-O2** "Mass spectrometry in therapeutic modality research-2" Chair: N. Kawasaki S. Uchiyama	**15:10 - 15:40** **Teatime Session** Technical seminar for staff scientists & core lab managers	**15:45 - 17:00** **Oral 3A-O3** "Mass spectrometry of bioactive molecules" Chair: M. Miyashita, T. Yamagaki			**19:00 - 21:00 (Rainy)** **Banquet**	
Room B **Maesato Center** **Ocean Wing 1st Floor**	Chair: M. Miyashita			**11:25 - 12:40** **Oral 3B-O1** "Frontiers in mass spectrometry imaging -Methods and instrumentation-" Chair: S. Shimma Y. Otsuka	**12:45 - 13:45** **Luncheon Seminar** **3B-L-1245** Shimadzu Corporation	**13:55 - 15:10** **Oral 3B-O2** "Sharing and analysis of mass spectrometry data" Chair: F. Matsuda	**15:10 - 15:40** **Teatime Session** BRUKER	**15:45 - 17:00** **Oral 3B-O3** "Advances in Mass Spectrometry for the detection of ultra-trace elements and isotopes in Earth and Space Sciences" Chair: Y. Yokoyama, H. Sumino				
Room C **Top of Yaima** **Ocean Wing** **12th Floor**				**11:25 - 12:40** **Oral 3C-O1** "Clinical mass spectrometry and reverse translational research -From Diagnostic and treatment application to patological analysis - Part II" Chair: D. Saigusa, M. Maekawa	**12:45 - 13:45** **Luncheon Seminar** **3C-L-1245** Waters Corporation	**13:55-15:10** **Oral 3C-O2** "Single-cell omics and multiomics" Chair: Y. Ishihama, T. Bamba		**15:45 - 17:00** **Oral 3C-O3** "Cutting-edge metabolomics technology and applied research" Chair: T. Bamba, A. Hirayama				
Poster & Exhibition **Maesato East, Foyer** **Ocean Wing** **1st & 2nd Floor**		**9:15 - 10:15** **Poster 3P-AM** Core Time (Odd Number)	**10:15 - 11:15** **Poster 3P-AM** Core Time (Even Number)	**8:15 - 19:00　Poster Display** **8:15 - 19:00　Exhibitions by Sponsors**						**17:00 - 18:00** **Poster 3P-PM** Core Time (Odd Number)	**18:00 - 19:00** **Poster 3P-PM** Core Time (Even Number)	**19:00 - 21:00** **Banquet**	
Garden										**17:00 - 19:00** **Poster (3P-AM & 3P-PM)**			

Time Table The 73rd Annual Conference on Mass Spectrometry (2025)／AOMSC2025

Day 4, June 25 (Wednesday)　Registration: Ocean Wing 2nd floor from 8 am.

	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00
	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45	0 15 30 45
Room A **Maesato West** **Ocean Wing 1st Floor**	**8:30 - 9:15** **Plenary IV** **4-PL-0830** Prof. Tomoyoshi Soga (Keio University)			**11:25 - 12:40** **Oral 4A-O1** "Fundamentals & emerging applications of ionization and gas phase ion processes - part II" Chair: K. Sekimoto, L.C. Chen	**12:45 - 13:45** **Luncheon Seminar 4A-L-1245** Yokogawa Electric Corporation	**13:55 - 15:10** **Oral 4A-O2** "Instrument developments for the future of mass spectrometry" Chair: Y. Otsuka, Y.-S. Wang			**17:15 - 18:00** **Closing** **4-CL-1700**			
Room B **Maesato Center** **Ocean Wing 1st Floor**	Chair: T. Bamba			**11:25 - 12:40** **Oral 4B-O1** "Young researcher session 2" Chair: Y. Yamaguchi, P.-S. Chen	**12:45 - 13:45** **Luncheon Seminar 4B-L-1245** Agilent Technologies, Inc.	**13:55 - 15:10** **Oral 4B-O2** "Mass spectrometry in agriculture and food science" Chair: A. Oikawa						
Room C **Top of Yaima** **Ocean Wing** **12th Floor**				**11:25 - 12:40** **Oral 4C-O1** "Chemical proteomics /pharmacoproteomics" Chair: W. Wu, J. Adachi	**12:45 - 13:45** **Luncheon Seminar 4C-L-1245** AMR	**13:55 - 15:10** **Oral 4C-O2** "Cutting-edge lipidomics technology and applied research" Chair: T. Bamba, K. Ekroos						
Poster & Exhibition **Maesato East, Foyer** **Ocean Wing** **1st & 2nd Floor**		**9:15 - 10:15** **Poster 4P-AM** Core Time (Odd Number)	**10:15 - 11:15** **Poster 4P-AM** Core Time (Even Number)	**8:15 - 17:15　Poster Display** **8:15 - 17:15　Exhibitions by Sponsors**				**15:15 - 16:15** **Poster 4P-PM** Core Time (Odd Number)	**16:15 - 17:15** **Poster 4P-PM** Core Time (Even Number)				
Garden								**15:15 - 17:15** **Poster (4P-AM & 4P-PM)**					

Program

Day 1, June 22 (Sun.)

Room A (Maesato West)

〈Award Lecture〉

[1-AW] MSSJ Award Lectures

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(13:50 ～ 14:50) Chair: Yasushi Ishihama (Kyoto University)

1-AW-1350 Mass Spectrometry Studies on Higher-Order Structure of Biomacromolecules (Yokohama City Univ.) °Satoko Akashi

1-AW-1410 Development and application of highly sensitive metabolomics analysis using LC/MS (Kyushu Univ.) °Yoshihiro Izumi

1-AW-1430 Development of Thin metal Film formation Method For Surface-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging (Toyama Pref. Univ.) °Issey Osaka

〈Plenary Lecture〉

[1-PL] Plenary Lecture Ⅰ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(15:10～16:10) Chair: Michisato Toyoda (The University of Osaka)

1-PL-1510 Advancing the Study and Practical Use of Microalgae Euglena ([1]Euglena / RIKEN Baton Zone / Tohoku Univ. / UTM / UGM, [2]Euglena / RIKEN Baton Zone, [3]RIKEN Baton Zone / RIKEN CSRS / Yokohama City Univ. / Nagasaki Univ.) °Kengo Suzuki[1], Koji Yamada[2], Keiichi Mochida[3]

Room B (Maesato Center)

〈Award Lecture〉

[1-AW] MSSJ Award Lectures

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(13:50 ～ 14:50) Chair: Yasushi Ishihama (Kyoto University)

1-AW-1350 Mass Spectrometry Studies on Higher-Order Structure of Biomacromolecules (Yokohama City Univ.) °Satoko Akashi

1-AW-1410 Development and application of highly sensitive metabolomics analysis using LC/MS (Kyushu Univ.) °Yoshihiro Izumi

1-AW-1430 Development of Thin metal Film formation Method For Surface-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging (Toyama Pref. Univ.) °Issey Osaka

〈Plenary Lecture〉

[1-PL] Plenary Lecture Ⅰ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(15:10～16:10) Chair: Michisato Toyoda (The University of Osaka)

1-PL-1510 Advancing the Study and Practical Use of Microalgae Euglena ([1]Euglena / RIKEN Baton Zone / Tohoku Univ. / UTM / UGM, [2]Euglena / RIKEN Baton Zone, [3]RIKEN Baton Zone / RIKEN CSRS / Yokohama City Univ. / Nagasaki Univ.) °Kengo Suzuki[1], Koji Yamada[2], Keiichi Mochida[3]

Day 1, June 22 (Sun.)

Room C (Top of Yaima)

〈Award Lecture〉

[1-AW] MSSJ Award Lectures

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(13:50 ～ 14:50) Chair: Yasushi Ishihama (Kyoto University)

1-AW-1350 Mass Spectrometry Studies on Higher-Order Structure of Biomacromolecules (Yokohama City Univ.) °Satoko Akashi

1-AW-1410 Development and application of highly sensitive metabolomics analysis using LC/MS (Kyushu Univ.) °Yoshihiro Izumi

1-AW-1430 Development of Thin metal Film formation Method For Surface-Assisted Laser Desorption/Ionization Mass Spectrometry Imaging (Toyama Pref. Univ.) °Issey Osaka

〈Plenary Lecture〉

[1-PL] Plenary Lecture I

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(15:10 ～ 16:10) Chair: Michisato Toyoda (The University of Osaka)

1-PL-1510 Advancing the Study and Practical Use of Microalgae Euglena ([1]Euglena / RIKEN Baton Zone / Tohoku Univ. / UTM / UGM, [2]Euglena / RIKEN Baton Zone, [3]RIKEN Baton Zone / RIKEN CSRS / Yokohama City Univ. / Nagasaki Univ.) °Kengo Suzuki[1], Koji Yamada[2], Keiichi Mochida[3]

〈Poster Presentations〉

Room P (Maesato East, Foyer, Ocean Wing)

[1P-PM] Poster Session 1P-PM

Poster Display: 13:00 ～ 18:15

Core time (Odd numbers): 16:15 ～ 17:15

Core time (Even numbers): 17:15 ～ 18:15

#For welcome mixer participants, the poster removal time is preferably at 20:00.

1P-PM-01 Development of silicone oil detection method in pharmaceutical freeze dryer using EI-QMS with pulsed gas injection system ([1]ATONARP INC., [2]Osaka Univ.) °Kozue Asakura[1], Hirofumi Nagao[1,2]

1P-PM-02 A Proteomic Study of Coffee Beans with Different Postharvest Processing Methods ([1]BCST NCYU, [2]ITFA NCYU) °Tai-Wei Wu[1], Han-Ju Chien[1,2]

1P-PM-03 Rapid analysis of oligonucleotides and the impurities with acoustic ejection system coupled with high resolution mass spectrometry (AE-HRMS) (SCIEX) °Kaoru Karasawa

1P-PM-04 Mass++ ver.4 Gold, an official release of open-source MS data viewer ([1]Mass++ Users Group, [2]Trans-IT, [3]RIKEN, [4]Human Metabolome Technologies, [5]The Noguchi Inst., [6]Niigata Univ., [7]Mass Soft, [8]Showa Univ., [9]Kitasato Univ.) °Satoshi Tanaka[1,2], Masaki Murase[1], Masaki Kato[1,3], Hiroyuki Yamamoto[1,4], Masaaki Matsubara[1,5], Yushi Takahashi[1,6], Tsuyoshi Tabata[1,7], Maiko Kusano[1,8], Shin Kawano[1,9], Shujiro Okuda[6], Akiyasu Yoshizawa[1,6]

1P-PM-05 Development of Metal Thin Films Using Mist CVD as Ionization-Facilitating Materials for SALDI/MS Analysis of Lipids and Synthetic Polymers ([1]Toyama Prefectural University, [2]NIT, Ishikawa College) °Riko Takata[1], Yuji Nakabayashi[2], Yuki Kato[1], Issey Osaka[1]

1P-PM-06 Metabolome Analysis of Juvenile Corals using a Comprehensive Two-Dimensional Gas Chromatography High-Resolution Time-of-Flight Mass Spectrometry for Calcification-Related Compounds ([1]JEOL, [2]Kitasato Univ., [3]AIST, [4]Okayama Univ., [5]Univ. Ryukyus) °Azusa Kubota[1], Ayumi Kubo[1], Masaaki Ubukata[1], Nanami Mizusawa[2], Mariko Iijima[3], Yoshikazu Ohno[4], Jun Yasumoto[5], Ko Yasumoto[2]

Day 1, June 22 (Sun.)

1P-PM-07 Thin-section- and Matrix-free Mass Spectrometry Imaging: Platinum-coated Porous Plate Formed of Glass-beads (Transfer Plate) Realizes Various Sample Preparation ([1]Hamamatsu Photonics, [2]GPI) °Takamasa Ikeda[1,2]

1P-PM-08 ☆BIOSP-Based Multi-Scale Proteomics Decodes the Adipose-Brain Axis in Obesity (BMS CITYU) °Rui Qian, Fenglian Yang, Liang Zhang

1P-PM-09 Comprehensive metabolomic profiling method for disease by non-target LC/IM/MS/MS ([1]Toyama PU, [2]Kanazawa Univ, [3]Toyama-PU) °Ei Horiuchi[1], Shigehiro Karashima[2], Issey Osaka[3]

1P-PM-10 ☆Structural analysis of recombinant adeno-associated virus capsids using hydrogen/deuterium exchange mass spectrometry (Osaka Univ.) °Tomohiko Ikeda, Yuki Yamaguchi, Mitsuko Fukuhara, Yasuo Tsunaka, Aoba Matsushita, Tetsuo Torisu, Susumu Uchiyama

1P-PM-11 A Proteomic Study of the Impact of Roasting Stages on Natural Coffee Beans ([1]NCYU, [2]ITFA) °Dun-Xuan Wang[1], Han-Ju Chien[1,2]

1P-PM-12 The $[M-H]^+$ Formation of 4-Substituted-1-(methoxymethyl)benzene Derivatives under Positive Fast Atom Bombardment Ionization ([1]Mukogawa Women's Univ., [2]Osaka Research Institute of Industrial Science and Technology) °Shizuyo Horiyama[1], Motohiro Shizuma[2]

1P-PM-13 ☆Membrane Proteomic Analysis Revealed Resistant Mechanisms of Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitors In Lung Cancer Cells ([1]NTU, [2]TMU) °Yu Teng Jheng[1], Chia Li Han[2]

1P-PM-14 ☆Direct sampling mass spectrometry of samples on a petri dish using sheath-flow probe electrospray ionization (sfPESI) (Univ. of Yamanashi) °Yuta Hase, Kenzo Hiraoka, Lee Chuin Chen, Satoshi Ninomiya

1P-PM-15 Comparison of rare earth elements as impurities in gadolinium-based contrast agents (GBCAs) ([1]Guerbet, [2]Gunma University) °Hyuma Ohashi[1], Naoki Kato[1], Yoshito Tsushima[2]

1P-PM-16 ☆Development of Hexafluoro-2-propanol-Free LC/MS Method for Oligonucleotide Analysis ([1]Univ. Osaka, [2]Univ. Osaka Shimadzu Lab., [3]Shimadzu Corp.) °Takashi Miyazaki[1,2,3], Natsuyo Asano[3], Takao Yamaguchi[1], Satoshi Obika[1]

1P-PM-17 A Novel Benchtop MALDI-TOF/TOF Platform for Top-Down Protein Characterization ([1]BRUKERSG, [2]BRUKER, [3]BRUKERDAL) °Wen Donq Looi[1], Sergei Dikler[2], Arndt Asperger[3]

1P-PM-18 ☆Multi-omics analysis of CHO cells for improvement of monoclonal antibody production process (AGC Inc.) °Shigenori Takeda, Yumi Yamanaka, Kana Tanabe, Yasuhiro Kawano, Nobuyoshi Nagao

1P-PM-19 ☆Glycoproteomic Characterization of Colorectal Cancer FFPE Tissue Sections. (Yokohama City Univ.) °Manato Oishi, Daisuke Takakura, Nana Kawasaki

1P-PM-20 Sequential plasma metabolome and proteome analyses to develop a novel monitoring strategy for patients with epithelial ovarian cancer ([1]INGEM, Tohoku Univ., [2]ToMMo, Tohoku Univ., [3]Grad. Sch. Med., Tohoku Univ.) °Eiji Hishinuma[1,2], Shogo Shigeta[3], Naomi Matsukawa[2], Yasunobu Okamura[1,2], Ikuko Motoike[2], Kengo Kinoshita[1,2], Seizo Koshiba[1,2], Muneaki Shimada[1,2,3]

1P-PM-21 Development of the Workflow for PFAS Analysis in Plating Films Using LC-MS/MS (Shimadzu) °Kota Ishioka, Ryo Yamaguchi, Junichi Masuda

1P-PM-22 Optimizing Sequence Coverage for Modified Oligonucleotides: A Study Using CID MS/MS and Ion Mobility (Nihon Waters) °Taiji Kawase, Tatsuya Ezaki, Kenji Hirose

1P-PM-23 ☆Identification and quantification of host cell proteins in recombinant adeno-associated virus by data-independent acquisition mass spectrometry (Osaka Univ.) °Yuma Furuta, Yuki Yamaguchi, Yasuo Tsunaka, Mitsuko Fukuhara, Tetsuo Torisu, Susumu Uchiyama

1P-PM-24 ☆Increasing the Flexibility of Electrospray Ionization Mass Spectrometry by Introduction of Multiple Modifier Vapors (NTHU CHEM) °Ying-Rong Hwang, Decibel Elpa, Pawel Urban

1P-PM-25 ☆Large-scale profiling of protease and proteolysis in non-small cell lung cancer cell lines using protein terminomics ([1]Kyoto Univ., Japan, [2]Niigata Univ., Japan) °Risa Chisaka[1], Yuto Taniguchi[1], Tatsuya Sagawa[1], Kaho Takamuro[1], Ayana Tomioka[1], Hiroshi Nishida[1], Shujiro Okuda[2], Yasushi Ishihama[1]

Day 1, June 22 (Sun.)

1P-PM-26 Identification of Pannexin-3 as a Missing Protein in the Human Proteome Using Liquid Chromatography-Tandem Mass Spectrometry ([1]KBSI_DORC, [2]KMU_DBC, [3]KMU_ARI, [4]KBSI_BRC, [5]KRIBB, [6]UST) °Hae Min Ju[1], Kyung Hee Kim[2,3], Soojin Park[4], Jin Young Kim[1,5], Heeyoun Hwang[1,6]

1P-PM-27 Eco-friendly agents for mitigating *Schistosoma mansoni* infection : bioassay-guided identification and mass spectrometry analysis ([1]UniSC/CBI, [2]UniSC/SSTE, [3]QIMR, [4]StFX) Conor Fogarty[1,2], Saowaros Suwansa-ard[1,2], Phong Phan[1], Donald McManus[3], Mary Duke[3], Russell Wyethd[4], Scott Cummins[1,2], °Tianfang Wang[1,2]

1P-PM-28 Comparison of Amino Acid Analyzer and Triple Quadrupole LC-MS/MS for the Analysis of Biological Free Amino Acids (Tottori Univ.) °Mizuki Yokono

1P-PM-29 ☆Medium-molecular-weight Metabolomics Platform with a Focus on Peptides, Developed Based on Capillary Electrophoresis-Mass Spectrometry (HMT) °Tomoaki Nitta, Kazunori Sasaki, Hiroyuki Yamamoto, Hajime Tomatsu, Kenjiro Kami

1P-PM-30 ☆Proteomic Profiling of Serum Extracellular Vesicles Reveals RARRES2 as a New Potential Biomarker for PCOS Detection ([1]School of Nutrition and Health Sciences, TMU, [2]Research Center of Nutritional Medicine, TMU, [3]Graduate Institute of Cancer Biology and Drug Discovery, TMU, [4]PhD Program for Cancer Molecular Biology and Drug Discovery, TMU, [5]Graduate Institute of Medical Sciences, NDMC, [6]Department of Research and Development, NDMC) °Jun Yi Chong[1], Shih-Min Hsia[1,2], Tsui-Chin Huang[3,4], Hsin-Yi Chang[5,6]

1P-PM-31 Efficient Exosome Enfichment from Urine Usinf Polyethylene Glycol ([1]CNU, [2]Chungnam National Univ.) °Jonggil Won[1], Jeongkwon Kim[2]

1P-PM-32 ☆Characterizing Microglia in Alzheimer's Disease (AD) and Cerebral Amyloid Angiopathy (CAA) with MALDI HiPLEX-IHC ([1]Doshisha Univ., [2]Bruker Japan, [3]JASRI/SPring-8, [4]BBAR) °Naoki Tsujimura[1], Rikuya Yoshimura[1], Takashi Nirasawa[2], Yumiko Toyama[1], Maiko Okamura[1], Masato Hoshino[3], Shuji Yamashita[1], Yuko Saito[4], Shigeo Murayama[4], Kazuhiro Irie[1], Masaya Ikegawa[1]

1P-PM-33 ☆Spatial Lipidomics Mapping in 3D Cell Models via DESI Mass Spectrometry Imaging (Chang Gung Univ.) °Chen Yu Chang, Cheng Hung Yang

1P-PM-34 ☆A Novel 18O-Labeled Water Approach for Investigating Intracellular Nucleotide Synthesis Kinetics ([1]Kyoto Univ., [2]Kwansei Gakuin Univ.) °Ryoma Kizu[1,2], Ikuko Yao[2], Yuki Sugiura[1]

1P-PM-35 ☆Extraction and Analysis of Metabolites from Bacillus anthracis Spores Using GC-MS (CNU) °Yongju Jo

1P-PM-36 ☆Ketogenic diet promotes muscular endurance by altering muscle fiber composition in gastrocnemius not soleus muscle ([1]GILS National Defense Medical Center, [2]PhD Program for CBDD Taipei Medical Univ., [3]CBDD Taipei Medical Univ., [4]GIMS National Defense Medical Center) °Cheng-Yi Ma[1], Tsui-Chin Huang[2,3], Hsin-Yi Chang[4]

1P-PM-37 ☆Native Digestion-Based Sample Preparation for Plasma Proteomics ([1]Kyoto Univ., [2]NIBIOHN) °Hiroto Kakiuchi[1], Ayana Tomioka[1], Kosuke Ogata[1], Eisuke Kanao[1,2], Yasushi Ishihama[1,2]

1P-PM-38 ☆Mitochondrial Acetyl-CoA Potentiates Beige Adipocyte Thermogenesis through BNIP3-mediated Mitophagy ([1]CBDD,TMU, [2]PhD Program for CBDD,TMU, [3]Master Program in Clinical Genomics and Proteomics, TMU, [4]Medical Sciences, NDMC, [5]Department of Research and Development, NDMC) °Yii-Jwu Lo[1,2], Tsui-Chin Huang[1,2,3], Hsin-Yi Chang[4,5]

1P-PM-39 Withdrawn

1P-PM-40 ☆Mass Spectrometry of Dimethyl Sulfide Oxidation Products Formed in Atmospheric Pressure Corona Discharges (Yokohama City Univ.) °Yuta Hamamoto, Kanako Sekimoto

1P-PM-41 ☆Metabolic signatures of prenatal exposure to 'Cocktails' of benzotriazoles and benzothiazoles and its health implications ([1]SJTU, [2]HKBU) °Yanqiu Zhou[1,2]

1P-PM-42 ☆Spatial multi-omics study delineates possible link between copper dyshomeostasis and macrophage driven inflammation in Dilated Cardiomyopathy ([1]Doshisha Univ., [2]SHIMADZU, [3]Kyoto Univ., [4]NCNP, [5]NCVC, [6]Hokusetsu General Hospital) °Maiko Okamura[1], Koji Okuda[2], Shinichi Yamaguchi[2], Takushi Yamamoto[2], Kenji Minatoya[3], Shuji Yamashita[1], Ichizo Nishino[4], Hatsue Ishibashi-Ueda[5,6], Masaya Ikegawa[1]

Day 1, June 22 (Sun.)

1P-PM-43 ☆Gas-Phase Photoelectron Spectroscopy and Reactivity of the Phenylacetylide $PhCC^-$ and Copper Bis(phenylacetylide) $[Cu(CCPh)_2]^-$ Anions ([1]unimelb, [2]PNNL) °Howard Ma[1], Wenjin Cao[2], Yufei Xie[1], Xue-Bin Wang[2], Richard O'hair[1]

1P-PM-44 ☆Reliability on MS image of citric acid distribution in a strawberry fruit specimen created using positive/negative ion mode associated with potassium distribution ([1]Hokkaido Univ., [2]Shimadzu) °Takumi Fujiki[1], Kaoru Nakagawa[2], Koji Okuda[2], A. Tanabe[2], M. Kiyama[2], Manami Kobayashi[2], Takashi Suzuki[1]

〈Late Breaking Posters〉

[1P-LB] Late Breaking Posters

Poster Display : 13 : 00 ～ 18 : 15

Core time (Odd numbers) : 16 : 15 ～ 17 : 15

Core time (Even numbers) : 17 : 15 ～ 18 : 15

#For welcome mixer participants, the poster removal time is preferably at 20 : 00.

1P-LB-01 Measurement of Metals in Human Liver Using LA-ICP-MS and an Organic Matrix-Based Standard ([1]Agilent, [2]Kyoto Univ., [3]Tokushima Univ.) °Tetsuo Kubota[1], Yuki Sugiura[2], Koichi Tsuneyama[3]

1P-LB-02 Rapid Analysis of Psychotropic Drugs and Metabolites in Urine Using Thermal Desorption Electrospray Ionization Mass Spectrometry ([1]Hanyang Univ., [2]FGC, SPO Korea, [3]NSYSU) °Kyunghwa Kee[1], Jinyoung Kim[2], Jaechul Cheong[2], Namhee Kwon[2], Jentaie Shiea[3], Hyehyun Yoo[1]

1P-LB-03 Versatile Mass Spectrometry : In-House RGA and Portable MS for Expanding Molecular Analysis Capabilities ([1]Sogang Univ., [2]Affiliation 1, [3]Affiliation 2) °Seungho Ha[1], Han Bin Oh[2], Dong Young Lim[3]

1P-LB-04 Proteomic analysis of corneal layers after trigeminal denervation : insights into inflammation and intracellular clearance in the epithelium, stroma, and endothelium ([1]NTUH, [2]NTU) °Pei-Shan Wu[1], I-Lan Tsai[1], Miao-Hsia Lin[2], Hsin-Yu Liu[1]

1P-LB-05 Decoding O-Antigen Substructures in Pathogenic *E. coli* O111 : Insights from MALDI Glycotyping of Cell Culture and Commercial LPS (Hokkaido Univ.) °June Chelyn Lee, Shogo Urakami, Hinou Hiroshi

1P-LB-06 Analysis of Sulfated N-glycans as a Potential Biomarker for the Early Detection of Breast Cancer ([1]Hokkaido Univ., [2]De La Salle Univ., [3]Addis Ababa Univ) °Dereje Feleke[1], Bryan Montalban[2], Solomon Gizaw[3], Hiroshi Hinou[1]

1P-LB-07 Live Single-Cell Mass Spectrometry to Study the Metabolic Mechanisms Behind Triple Negative Breast Cancer Cell Migration. (Leiden Univeristy) °Xiaoyue Huang, Sylvia Le Devedec, Thomas Hankemeier, Ahmed Ali

1P-LB-08 Hierarchical Porous Nanofibers Containing Zeolitic-Imidazolate Frameworks and Hydroxyapatite Nanoparticles for Efficient Atmospheric Pollution Control ([1]Pusan University, [2]Pusan Univ., [3]PNU, [4]Pusan Univ.(PNU)) °Changyun Kim[1], Kwonho Jang[2], Sungkyun Park[3], Kanghyun Park[4]

1P-LB-09 Developing Multiple Biomarkers of Human Lung Cancer Using Multiomics. (NTOU) °Fang-Hsuan Chang

1P-LB-10 New Concept for Detection of charge and m/z of Multiply Charged Particles with High Signal Gain ([1]Ningbo University, [2]Southeast University) Dongdong Zhou[1], Baiyu Chen[2], Mei Xiao[2], °Li Ding[1]

1P-LB-11 Development of a sheathless CE-MS method for limited sample volume (Keio Univ.) °Akiyoshi Hirayama, Yushi Kamei

1P-LB-12 MALDI-Spiral-TOFMS Analysis of Photochromic Diarylethene Derivatives with Labile Groups and Their Photopolymerization Reactions (NAIST) °Taichi Muto, Kaho Irie, Chigusa Goto, Yoshiko Nishikawa, Tsuyoshi Kawai

Day 2, June 23 (Mon.)

Room A (Maesato West)

⟨Plenary Lecture⟩

[2-PL] Plenary Lecture Ⅱ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:30～9:30) Chair: Yasushi Ishihama (Kyoto University)

2-PL-0830 Exploiting the Mass Spectrometry Toolkit for Biomedical Discoveries and Clinical Translation (Mayo Clinic) °Akhilesh Pandey

⟨Oral Sessions⟩

[2A-01] Current Issues in Polymer Material Characterization and Recent Approaches with Mass Spectrometry

(11:40～12:55) Chair: Takaya Satoh (JEOL) / Shogo Yamane (AIST)

2A-01-1140 Detection of Different Additives from Evolved Gas Analysis-Mass Spectrometry Data Using Two-dimensional Correlation Spectroscopy (AIST) °Shogo Yamane, Yasumasa Suzuki, Hideyuki Shinzawa

2A-01-1155 Analysis of Highly Multiply Charged Intact Polymers in Cyclic Ion Mobility-Mass Spectrometry with Collision Induced Charge Stripping (NITech) °Isa Guducu, Iiguni Yoshinori, Shinya Kitagawa

2A-01-1210 Structural Analysis of EO-PO Copolymers Using LC-QTOF MS (Aichi Pref.) °Goro Funakoshi

2A-01-1225 (3P-AM-43) ☆An Ambient Microwave Plasma Torch Desorption/Ionization Mass Spectrometry (MPT-MS) Strategy for Microplastic Detection (Zhejiang Univ.) °Qing Li, Weiwei Chen, Fengjian Chu, Jing Luo, Hongru Feng, Yuanjiang Pan

2A-01-1240 Multifaceted degradation evaluation of PET bottles subjected to outdoor exposure test ([1]JEOL, [2]The Council for PET Bottle Recycling) °Takaya Satoh[1], Azusa Kubota[1], Chikako Nakayama[1], Yusuke Sakuda[1], Kouji Takahashi[2], Masahiko Asano[2]

⟨Luncheon Seminar⟩

[2A-L] Luncheon Seminar (Presented by Thermo Fisher Scientific)

(13:00～14:00)

2A-L-1300 ADVANCEMENTS IN TECHNOLOGY THAT REVEAL BIOLOGICAL INSIGHTS INTO DISEASE MECHANISMS AND CLINICAL RESEARCH OUTCOMES ([1]Academia Sinica, [2]Thermo Fisher Scientific) °Yu-Ju Chen[1], Maciej Bromirski[2]

⟨Oral Sessions⟩

[2A-02] AOMSC Special Session

(14:10～15:25) Chair: Tomoya Kinumi (AIST)

2A-02-1410 [Invited]Deciphering $PM_{2.5}$-disrupted Energy Metabolism via Mass Spectrometry Analysis (HKBU) °Zhu Yang

2A-02-1425 [Invited]Ion behavior in the Evaporating Charged Droplets Generated by Electrospray Ionization (POSTECH) Seongjae Jang, Minsu Kim, °Jongcheol Seo

2A-02-1440 [Invited]LncRNA HIFCAR Sequesters ER Resident Protein to Hinder Antigen Presentation Process in Pancreatic Ductal Adenocarcinoma ([1]R&D, NDMC, [2]PhD CBDD, TMU, [3]GIMS, NDMC, [4]CBDD, TMU) Tze-Ting Kuo[1,2], Jia-Jun He[3], Bai-Chia Liu[4], Tsui-Chin Huang[2,4], °Hsin-Yi Chang[1,3]

2A-02-1455 Integrative Structural Mass Spectrometry for Understanding the Protein-Protein/Drug Interaction Dynamics (SYSU) Yuxiang Luo, Minhan Nie, °Huilin Li

2A-02-1510 Quantitative metabolomics for human plasma using stable isotope-labeled internal standard mixture (SILIS) ([1]MIB, Kyushu Univ., [2]Kyushu Univ., [3]AIST, [4]Taiyo Nippon Sanso, [5]Keio Univ., [6]SAIL Technologies) °Masatomo Takahashi[1,2], Yuki Soma[3], Akari Ikeda[4], Akiyoshi Hirayama[5], Kanako Tokito[1], Michiyo Hishikawa[6], Satsuki Ikeda[5], Yuri Imado[2], Tsutomu Terauchi[6], Takayoshi Matsuda[6], Yoshihiro Izumi[1,2], Takeshi Bamba[1,2]

Day 2, June 23 (Mon.)

[2A-03] Frontiers in Mass Spectrometry Imaging -Applications-

(15:40 ～ 16:55) Chair: Shuichi Shimma (The University of Osaka)

2A-03-1540 [Keynote]Mass spectrometry imaging to create a Lipidome Atlas ([1]Keio Univ., [2]WPI-Bio2Q, [3]RIKEN-IMS) °Makoto Arita[1,2,3]

2A-03-1610 Comparative Distribution of Free Eribulin and Eribulin Liposomal Formulation in Mouse Syngeneic Tumors Using Desorption Electrospray Ionization Mass Spectrometry Imaging ([1]Eisai, DMPK, [2]Eisai, DCV function) °Tomomi Ishida[1], Yuki Niwa[2], Koichiro Hotta[1], Taro Semba[2], Yuji Mano[1]

2A-03-1625 Hybrid Imaging Analysis reveals molecular localization reflecting brain function ([1]Dokkyo Medical Univ., [2]QST, [3]Tokyo Univ. Pharm. Life Sci., [4]Univ. Tokyo) °Tadayuki Ogawa[1], Shino Takeda[2], Tomonari Umemura[3], Takafumi Hirata[4]

2A-03-1640 (3P-AM-52) ☆Exploring the Chemical Communication of Australian Native Flower *Corymbia ficifolia* Using Mass Spectrometry Imaging ([1]ESC, GU, [2]CMM, UQ, [3]QBI, UQ) °Rachel Jackson[1], Brett Hamilton[2], Robert Sullivan[3], Darren Holland[1], Joshua Hayton[1], Anthony Carroll[1]

Room B (Maesato Center)

⟨Plenary Lecture⟩

[2-PL] Plenary Lecture Ⅱ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:30 ～ 9:30) Chair: Yasushi Ishihama (Kyoto University)

2-PL-0830 Exploiting the Mass Spectrometry Toolkit for Biomedical Discoveries and Clinical Translation (Mayo Clinic) °Akhilesh Pandey

⟨Oral Sessions⟩

[2B-01] Young Researcher Session 1

(11:40 ～ 12:55) Chair: Kohta Nakatani (Niigata University) / Chao-Jung Chen (China Medical University)

2B-01-1140 [Invited]The discovery of clinical disease biomarkers by LC-MS-based global metabolomics ([1]China Medical Uni., [2]China Medical Univ. Hospit.) °Chao-Jung Chen[1,2]

2B-01-1155 (3P-AM-49) ☆Phosphatase reactivity-based profiling of the local environment of phosphorylation sites on proteins ([1]Kyoto Univ., [2]NIBIOHN) °Yuna Hiranuma[1], Kosuke Ogata[1], Yasushi Ishihama[1,2]

2B-01-1210 (3P-AM-51) ☆First Look at the Integrated Phospholipid Metabolism in an Insect Endosymbiosis ([1]NIBB, [2]Keio University, [3]RIKEN IMS) °Dolma Michellod[1], Kathrine Tan[1], Makoto Arita[2,3], Shuji Shigenobu[1]

2B-01-1225 (3P-AM-15) ☆Development and Applications of Portable Gas Chromatograph-Mass Spectrometer System with Built-in Preconcentrator ([1]Graduate School of Science, Osaka Univ., [2]College of Science, NTNU) °Ping Chen[1,2], Tsung-Han Lee[2], Chia-Jung Lu[2], Michisato Toyoda[1]

2B-01-1240 (3P-AM-04) ☆Chiral Recognition by Mass Spectrometry with the Combinations of Two Chiral Selectors ([1]PolyU, [2]CityU) °Qi Yi[1], Yiqi Sheng[2], Chi-Kit Siu[2], Zhong-Ping Yao[1]

⟨Luncheon Seminar⟩

[2B-L] Luncheon Seminar (Presented by Waters Corporation)

(13:00 ～ 14:00)

2B-L-1300 Impact of viral protein stoichiometry on the biological activity of virus vector for gene therapy (The Univ. of Osaka) °Susumu Uchiyama

Day 2, June 23 (Mon.)

〈Oral Sessions〉

[2B-02] Environmental Pollution and Its Effects Evaluation

(14:10 ～ 15:25) Chair: Atsushi Yamamoto (Tottori University of Environmental Studies) / Runzeng Liu (Shandong University)

2B-02-1410 [Keynote]The Release of Dye and Microplastic-Related Chemicals into Nature by Humans: How Much is Discharged, and What Are Their Global Effects? (KNU) °Sunghwan Kim

2B-02-1440 [Invited]Synthetic Antioxidants as New Pollutants Revealed by Mass Spectrometry: From Environmental Occurrence to Human Exposure (Shandong Univ.) °Runzeng Liu, Xiaoxia Feng, Xiaomeng Ji

2B-02-1455 [Invited]Bacteria in the atmosphere: Insights into their production and transformation of biological and organic matter in cloud water ([1]SEE CityUHK, [2]SRI CityUHK, [3]SKLMEH) °Theodora Nah[1,2,3], Yushuo Liu[1,2], Chee Kent Lim[1], Zhiyong Shen[1], Patrick Lee[1,3]

2B-02-1510 Investigating the Health- and Climate-Relevant Chemical Composition of Wildfire Smoke Particles and Marine Aerosols by a Novel On-Line Single Particle Mass Spectrometry Technology ([1]Univ. Rostock/HMGU, [2]Univ. Eastern Finland/Kuopio, [3]Photonion GmbH) Johannes Passig[1], Olli Sippula[2], Hassib Hakim[1], Annele Virtanen[2], Mika Ihalainen[2], Iva Rosewig[1], Robert Irsig[3], °Ralf Zimmermann[1]

[2B-03] Fundamentals & Emerging Applications of Ionization and Gas Phase Ion Processes - Part I

(15:40 ～ 16:55) Chair: Lee Chuin Chen (Univerisity of Yamanashi) / Kanako Sekimoto (Yokohama City University)

2B-03-1540 [Keynote]Exploring Microdroplet Interactions in Electrospray-like Ion Sources (NTHU) °Pawel Urban

2B-03-1610 [Invited]Investigation of Microdroplet Chemistry with Mass Spectrometry (Univ. Nankai) °Xinxing Zhang

2B-03-1625 [Invited]Noninvasive Sampling Devices Combined with Ambient Ionization Tandem Mass Spectrometry for Rapid Characterization of Metabolic Biomarkers, Ingested Medicine, and Abused Drugs in Breath (NSYSU/Taiwan) °Jentaie Shiea

2B-03-1640 [Invited]Masked Reactivity of Hydrated Clusters of Monovalent Manganese Ion: H_2O Insertion vs. N_2O Activation — A DFT Investigation (City U Hong Kong) °Chi-Kit Siu

Room C (Top of Yaima)

〈Plenary Lecture〉

[2-PL] Plenary Lecture Ⅱ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:30 ～ 9:30) Chair: Yasushi Ishihama (Kyoto University)

2-PL-0830 Exploiting the Mass Spectrometry Toolkit for Biomedical Discoveries and Clinical Translation (Mayo Clinic) °Akhilesh Pandey

〈Oral Sessions〉

[2C-01] Clinical Mass Spectrometry and Reverse Translational Research -From Diagnostic and Treatment Application to Pathological Analysis- Part Ⅰ

(11:40 ～ 12:55) Chair: Hsiao-Wei Liao (National Yang Ming Chiao Tung University) / Masamitsu Maekawa (Tohoku University)

2C-01-1140 [Keynote]Quantitative Measurements of Circulating Ceramides as Markers for Cardiometabolic Disorders (Duke-NUS) °Federico Torta

2C-01-1210 Determination of Clonality of Monoclonal Serum Free Light Chains by On-Probe Extraction Coupled with Liquid Chromatography-Mass Spectrometry ([1]Stanford Univ, [2]Stanford Health Care) Priscilla Yeung[1,2], Yajing Liu[1], Ashley Ruan[1], Christina Kerr[1], Run-Zheng Shi[1,2], David Iberri[1], °Ruben Luo[1,2]

Day 2, June 23 (Mon.)

2C-01-1225 Exploring Serum Amyloid A Variant Barcode in Colorectal Cancer by Nanoprobe-based Affinity Mass Spectrometry ([1]IOC, NTU, [2]JZ, [3]IOBI, NYCU, [4]KMUH, [5]IOC, AS) °Jia-Rong Li[1], Mira dela Rosa[2], Ping-Song Li[2], Kun-Pin Wu[3], Deng-Chyang Wu[4], Yu-Ju Chen[5]

2C-01-1240 A novel newborn screening modality : Non-targeted proteome analysis using low-cost iron powders (KDRI) °Daisuke Nakajima, Masaki Ishikawa, Ryo Konno, Hideo Sasai, Osamu Ohara, Yusuke Kawashima

〈Luncheon Seminar〉

[2C-L] Luncheon Seminar (Presented by BRUKER)

(13 : 00 ～ 14 : 00)

2C-L-1300 Expanding the world of TIMS-enriched applications - Introduction of new Bruker MS technologies including the timsOmni MS platform ([1]Bruker LLC, [2]Bruker Singapore, [3]Fasmatech) °Mike Greig[1], Wen Donq Looi[2], Dimitris Papanastasiou[3], Athanasios Smyrnakis[3], Mariangela Kosmopoulou[3], Anastasios Grigoriadis[3], Ioannis Orfanopoulos[3], Nikolaos Manolis[3], Ilias Panagiotopoulos[3], Rafail Gioves[3], Alexandros Lekkas[3]

〈Oral Sessions〉

[2C-02] Clinical Omics / Biomarker Development

(14 : 10 ～ 15 : 25) Chair : Yu-Ju Chen (Academia Sinica) / Peter Hoffmann (University of South Australia)

2C-02-1410 [Keynote]Mapping Nanoscale-to-Single Cell Proteome Landscape and Beyond towards Precision Oncology (Academia Sinica) °Yu-Ju Chen

2C-02-1425 [Invited]Prognostic MALDI-MSI : Predicting Chemotherapy Responses and Identifying Metastasis in Gynecological Cancers ([1]UniSA, [2]RAH) °Peter Hoffmann[1], Parul Mittal[1], Manuela Klingler-Hoffmann[1], Martin Oehler[2]

2C-02-1440 (3P-PM-41) ☆Proteome-Wide Degron Screening ([1]UNSW, [2]UTS) °Jake Violi[1], Suhyeon Kwon[1], Priyanka Kundu[1], Connor Phillips[2], William Donald[1]

2C-02-1455 Specific Enhancement of Neoantigen Presentation by Targeted Proteasomal Degradation ([1]SIgN, A*STAR, [2]NUS) °Ilisia Ow[1,2], Amanda Lee[1], Justin Low[1], Wei Wu[1,2]

2C-02-1510 (3P-PM-16) ☆Advancing Bottom-up Proteomics with Protease Type XIII from *Aspergillus saitoi* ([1]Kyoto Univ., [2]SHIONOGI, [3]NIBN) °Ryota Tomioka[1,2], Ayana Tomioka[1], Kosuke Ogata[1], Yasushi Ishihama[1,3]

[2C-03] Advanced Technology in Proteomics

(15 : 40 ～ 16 : 55) Chair : Miao-Hsia Lin (National Taiwan University) / Naoyuki Sugiyama (National Cerebral and Cardiovascular Center)

2C-03-1540 [Keynote]Decoding functional signalling with personalized phosphoproteomics ([1]Murdoch Children's Research Institute (MCRI), [2]Charles Perkins Centre, University of Sydney, [3]Cardiovascular Epidemiology Unit, University of Cambridge, [4]Flinders Health and Medical Research Institute, [5]Section of Molecular Physiology, University of Copenhagen) °Sean Humphrey[1], Elise Needham[3], Magnus Leandersson[5], Hannah Huckstep[1], Janni Petersen[4], David James[2], Jorgen Wojtaszewski[5]

2C-03-1555 A Methanolic Urea-enhanced Protein Extraction Enabling the Largest Bacterial Protein O-Phosphorylation Atlas ([1]NTU, [2]Kyoto Univ., [3]NIBIOHN) Pei-Shan Wu[1,2], Ting-An Chen[1], Yasushi Ishihama[2,3], °Miao-Hsia Lin[1,2]

2C-03-1610 Chromatography to the Rescue – Confident Differentiation Between Citrullination and Deamidation in Bottom-up Proteomic Experiments (U. of Manitoba) °Oleg Krokhine

2C-03-1625 Development of a Non-Target Analysis Method for Isomeric Peptides in LC-IM-TOFMS (NITech) °Shinya Kitagawa, Reina Ogawa, Rio Suzumura, Takehiro Hirose, Yosinori Iiguni

2C-03-1640 (4P-AM-47) ☆Proteome-Wide Profiling of Protein Structural Dynamics by Phospho-Probing with Multiple Kinases ([1]Kyoto Univ., [2]NCVC, [3]NIBIOHN) °Asato Maeda[1], Kosuke Ogata[1], Naoyuki Sugiyama[1,2], Yasushi Ishihama[1,3]

Day 2, June 23 (Mon.)

〈Poster Presentations〉

Room P (Maesato East, Foyer, Ocean Wing)
[2P-AM] Poster Session 2P-AM
Poster Display : 8 : 15 ～19 : 00
Core time (Odd numbers) : 9 : 30 ～10 : 30
Core time (Even numbers) : 10 : 30 ～11 : 30

2P-AM-01 Development of New Crystalline Sponges with Solvent and Vacuum Resistance ([1]The Univ. of Tokyo, [2]IMS, [3]Daicel Corp.) °Sota Sato[1,2], Keisuke Gondo[3], Tomoko Adachi[3]

2P-AM-02 ☆The remarkable but varied photosensitized oxidation by atmospheric humic-like substances at the air-water interface (Nankai Univ.) °Xufeng Gao, Xinxing Zhang

2P-AM-03 ☆Overcoming Neoadjuvant Chemotherapy Resistance by Clinical Phosphoproteomics of Colorectal Cancer Liver Metastasis ([1]NIBIOHN, [2]Kyoto Univ. Gastrointestinal surg., [3]Ujitoku, [4]JFCR, [5]Kyoto Univ. Pharmaceutical Sci.) °Akina Shinkura[1,2], Satoshi Muraoka[1], Narimi Takaai[1], Yoko Takada[1], Masayo Hirano[1], Satoshi Nagayama[3,4], Yu Takahashi[4], Yosuke Fukunaga[4], Kazutaka Obama[2], Jun Adachi[1,5]

2P-AM-04 ☆High Electric Fields on Water Microdroplets Catalyze Spontaneous and Fast Reactions in Halogen-Bond Complexes (Nankai Univ.) °Chenghui Zhu, Xinxing Zhang

2P-AM-05 Paleoenvironmental Reconstruction Using Sulfur Isotope Compositions in Sedimentary Rocks (Univ. Tsukuba) °Teruyuki Maruoka

2P-AM-06 Wide-target Lipidomic Analysis Reveals Novel Functionalities of Edible Insects ([1]Agilent, [2]Setsunan University) °Kyoko Yasuda[1], Takeshi Serino[1], Mami Ando[2], Yoshichika Hirahara[2]

2P-AM-07 ☆SIZE-DEPENDENT PULMONARY TOXICITY AND WHOLE-BODY DISTRIBUTION OF INHALED MICRO/NANO PLASTIC PARTICLES IN MALE MICE FROM CHRONIC EXPOSURE (HKBU) °Leijian Chen

2P-AM-08 ☆Rapid Quantification of Free Aromatic Amines and Related Metabolites in Human Urine Using LC-MS/MS (NYCU) °Yuanzhang Hsu, Guorjien Wei

2P-AM-09 *De Novo* Structural Elucidation of Cnidarian Metabolites by Non-Targeted LC-ESI-MS/MS ([1]OIST, [2]Kyushu Univ., [3]Osaka Univ., [4]Miruion Inc.) °Yayoi Hongo[1], Hiroshi Watanabe[1], Kenji Hamase[2], Chiharu Ishii[2], Shuichi Shimma[3,4], Hiromi Saito[4]

2P-AM-10 Development of Global Machine Learning Models for Understanding Retention Mechanisms and Predicting Retention Time in Supercritical Fluid Chromatography/Mass Spectrometry ([1]Kyushu Univ., [2]Div. of Metabolomics, MIB, Kyushu Univ.) °Omidreza Heravizadeh[1], Kohta Nakatani[1,2], Noriyuki Tomiyasu[2], Taihei Torigoe[2], Toshiyuki Yamashita[2], Masatomo Takahashi[1,2], Yoshihiro Izumi[1,2], Takeshi Bamba[1,2]

2P-AM-11 ☆Comprehensive structural annotation of unidentified hydrophilic metabolites based on LC/HRMS/MS and in silico epimetabolite database (IEMDB) ([1]MIB, Kyushu Uni., [2]SLS, Kyushu Uni., [3]AIST) °Taihei Torigoe[1], Masatomo Takahashi[1,2], Omidreza Heravizadeh[2], Kazuki Ikeda[1], Kohta Nakatani[1,2], Yuki Soma[3], Takeshi Bamba[1,2], Yoshihiro Izumi[1,2]

2P-AM-12 ☆Multiphysics Numerical Modeling of Ion Transport Dynamics in a Photoionization Mass Spectrometry Setup (USTC) °Zhiwei Wen, Jiuzhong Yang, Chengyuan Liu, Minggao Xu, Yang Pan

2P-AM-13 ☆Determination of parabens, bisphenol A, and benzophenone-UV filters in milk powder by SPE and UHPLC-MS/MS ([1]NYCU, [2]NYC University) °Shabir Ahmad[1], Yu-Fang Huang[2]

2P-AM-14 ☆Matrix-Enhanced SALDI Imaging of Consecutive Tape Strips for Visualizing Skin Penetration of Cosmetic Ingredients (KOSÉ Corporation) °Yi Lyu, Shunichi Suga, Masatoshi Sekiya, Daiki Yamakoshi, Ken Tanaka, Tsuyoshi Hata

2P-AM-15 Investigation of the mechanism of action of Kampo medicines utilizing limited digestion mass spectrometry. (Tsumura) °Masashi Hiramoto, Takashi Matsumoto

2P-AM-16 The utility of combining two database search methods to identify phosphoserine and/or phosphothreonine in peptides in phosphoproteomics ([1]BRC, Kobe Univ., [2]ICMS, Med. Kobe Univ., [3]Agric. Sci. Kobe Univ.) °Ken-ichi Yoshino[1,2], Miyu Uehara[3], Shuji Ueda[3]

2P-AM-17 ☆Streamlining LC-MS Sample Preparation through 3D Printing Technology (Sogang Univ.) °Hwa-Yong Jang, Han Bin Oh

2P-AM-18 Semi-automated detection and identification of multiplex-labeled metabolomics data ([1]MKI, [2]Taiyo Nippon Sanso, [3]Lipidome Lab) °Noritaka Masaki[1], Akari Ikeda[2], Mei Tanabe[2], Yasuto Yokoi[1], Takayo Ohto[3], Hiroki Nakanishi[3]

Day 2, June 23 (Mon.)

2P-AM-19 Parallel targeted and untargeted metabolite analysis of mouse plasma samples using a benchtop multi-reflecting time of flight mass spectrometer ([1]Waters Corp, [2]Liverpool Uni) °Jayne Kirk[1], Adam King[1], Lee Gethings[1], Ian Wilson[2]

2P-AM-20 ☆Multi-omics analyses reveal the potential mechanism of nematode resistance in tomato resistant and susceptible cultivars ([1]DBBS, NCKU, [2]CSD, TARI, [3]CGRBD, TARI) °Ying-An Chen[1], Le Kang[2], Yuan-Kai Tu[3], Ying-Lan Chen[1]

2P-AM-21 ☆Phosphoproteomic Analysis Reveals the Role of HAESA in IDA-Mediated Lateral Root Development ([1]NCKU, [2]IPMB, Sinica) °Li-Hsuan Yu[1], I-Fan Wang[1], Kuan-Hao Huang[1], Chuan-Chih Hsu[2], Ying-Lan Chen[1]

2P-AM-22 Mass spectrometry based on a nitrilotriacetic acid affinity probe for the rapid enrichment and comprehensive profiling of cellular porphyrins ([1]IoC Academia Sinica, [2]FHS Macau Univ, [3]DoC NTU) °Mei-Chun Tseng[1], Elias Mernie[1], Rofeamor Obena[1], Fu-Lien Huang[2], Tzu-Ming Liu[2], Yu-Ju Chen[1,3]

2P-AM-23 ☆Investigation of Mode of Action : Sorgolone Analogs Using Metabolomics ([1]Kangwon Nat'l Univ., [2]Konkuk Univ.) °Jung-Hoon Lee[1], Eun-Song Choi[1], Min-Ho Song[1], Ha-Jin Son[2], Ji-Yeon Lee[2], Ji-Woo Yu[1,2], Ji-Ho Lee[1]

2P-AM-24 ☆Effect of Iprodione on Adult Female and Male Zebrafish based on Hormone and Lipidome Analysis using LC-MS/MS ([1]Konkuk Univ., [2]Kangwon Nat'l Univ., [3]KIT) °Ji-Woo Yu[1], Min-Ho Song[2], Eun-Song Choi[2], Jung-Hoon Lee[2], Jong-Hwan Kim[3], Young-Soo Keum[1], Ji-Ho Lee[2]

2P-AM-25 Optimization of probe electrospray ionization-mass spectrometry (PESI-MS) for the analysis of an *in vitro* enzyme reaction system ([1]Grad. Sch. IST, Osaka Univ., [2]OTRI, Osaka Univ., [3]ICBiotech., Osaka Univ., [4]JSPS, [5]Shimadzu) °Nobuyuki Okahashi[1,2], Takeo Taniguchi[1], Takuma Suzuki[3,4], Takanari Hattori[5], Hidenori Takahashi[5], Kohsuke Honda[2,3], Fumio Matsuda[1,2]

2P-AM-26 Structural Analysis of the Aroma Compounds in the Japanese Pickles by Gas Chromatography Olfactometry Time-of-Flight Mass Spectrometry (JEOL) °Naomi Watanabe, Azusa Kubota, Yoshio Abe, Haruo Iwabuchi, Masaaki Ubukata

2P-AM-27 ☆Application of LC-MS-Based Metabolomics and Proteomics for Bee Pollen Authentication and Food Fraud Prevention (NCHU) °Ya-Ting Pan, Chun-Sheng Wang, Chien-Chen Lai

2P-AM-28 ☆Conformational Dynamics of Beta-Lactamase by Hydrogen Deuterium Exchange Mass Spectrometry ([1]CPS-ZJU, [2]ABCT-HKPU) °Li-Wen Huang[1], Zhong-Ping Yao[2]

2P-AM-29 ☆The Relative Affinities of Amino Acids towards Divalent Metal Ions in the Gas Phase ([1]PolyU SZRI, [2]PolyU) °Xuewei Lin[1,2], Qi Yi[1,2], Zhong-Ping Yao[1,2]

2P-AM-30 ☆High-Resolution DIA-Based Proteomic Profiling Uncovers Regional Specialisation in the Human Retina ([1]SSI USyd, [2]CPC USyd) °Azhar Arafah[1], Ling Zhu[1], Xiaosuo Wang[2], Mark Gillies[1]

2P-AM-31 ☆Noble gas isotope analyses of the volcanic rocks in Ioto island (Iwo-Jima) from the latest eruptions since 2022 ([1]Univ. Tokyo, Komaba, [2]Univ. Tokyo, RCAST, [3]NIED) °Soho Yamamoto[1], Hirochika Sumino[2], Masashi Nagai[3]

2P-AM-32 ☆Unique Fragmentation of Indole Alkaloids Induced by Neutral Reactive Species Formed From Microwave Hydrogen and Water Plasma ([1]Univ. Melbourne, [2]Nagasaki Univ., [3]RIKEN, [4]Shimadzu Corp.) °Jack Li[1], Chris Bowen[1], Bun Chan[2,3], Hidenori Takahashi[4], Richard O'hair[1]

2P-AM-33 ☆Biomonitoring of BPA and Parabens In The Urine of Children Aged 6 to 8 Years ([1]IFSHRA, NYCU, [2]IEOHS, NYCU) °Yu-Xing Cheng[1], Mei-Lien Chen[2], Yu-Fang Huang[2]

2P-AM-34 ☆Examining the subcellular localisation of ceramides in mouse tissue using targeted mass spectrometry ([1]VCCRI, [2]SoCM UNSW Sydney, [3]SBMS UNSW Sydney, [4]SCh UNSW Sydney) °Laura Choong[1,2], Sarah Hancock[1,3], Amy Nguyen[1], Iliya Dragutinovic[4], Elysha Taylor[4], Jonathan Morris[4], Nigel Turner[1,3]

2P-AM-35 Improvement of Multi-Isotope Analytical Procedure of Extraterrestrial Materials and Its Implications for Material Transport in the Solar Protoplanetary Disk ([1]Univ. of Osaka, [2]UW-Madison, [3]Univ. of Tokyo, [4]NOAA, [5]JAMSTEC, [6]Okayama Univ.) °Kohei Fukuda[1,2], Yuki Hibiya[3], Craig Kastelle[4], Katsuhiko Suzuki[5], Tsuyoshi Iizuka[3], Katsuyuki Yamashita[6], Thomas Helser[4], Noriko Kita[2]

Day 2, June 23 (Mon.)

2P-AM-36 Analysis of Hydrophilic Metabolites in Rice from Different Production Areas (Shimadzu) °Yutaka Umakoshi, Hitomi Tsujihata, Nanami Sakashita, Yuki Sakamoto

2P-AM-37 Technical improvement of plant hormone quantification from very small tissues ([1]RIKEN CSRS, [2]TEU, [3]TBRC) °Yumiko Takebayashi[1], Hiromi Suzuki[1,2], Masami Hirai[1], Mitsunori Seo[1,3]

2P-AM-38 Maternal and Fetal Nicotine Metabolite Levels : An LC-MS/MS Study on ETS Exposure in the TBPS II Cohort ([1]NTU EOHS, [2]IPHS NHRI, [3]NTCH, [4]NTU PH, [5]NTU MED, [6]NIEHS NHRI) °Sih Yu Chen[1], Mei Huei Chen[2,3], Ching Chun Lin[1], Pau Chung Chen[1,4,5,6]

2P-AM-39 ☆Residue Characteristics and Analytical Assessment of Pesticides in *Heracleum moellendorffii* Hance Using Mass Spectrometry ([1]Konkuk Univ., [2]Kangwon Nat'l Univ.) °Ha-Jin Son[1], Ji-Woo Yu[1,2], Eun-Song Choi[2], Jung-Hoon Lee[2], Hui-Yeon Ahn[1], Geon-Woo Park[1], Ji-Won Shin[1], Ji-Yeon Lee[1], Min-Ho Song[2], Ji-Ho Lee[2]

2P-AM-40 INSIGHTS INTO DIET AND EXERCISE INDUCED CHANGES IN ZEBRAFISH LIPIDOME VIA LC-MS AND CHEMOMETRIC ANALYSES ([1]IQ-UFG, [2]UFLA, [3]DB-UFPR, [4]DQ-UFPR) °Andrea Chaves[1], Almir Batista Junior[1], Jussara Roque[1], Lanaia Ítala Maciel[1], Moises Martins[2], Willian Carneiro[2], André Viana[3], Luis David Murgas[2], Ricardo Bernardo[4]

2P-AM-41 Establishment of technology for single-cell tissue metabolome imaging analysis ([1]Osaka Univ., [2]Jichi Med. Univ.) °Shuichi Shimma[1], Hirotaka Nagai[2]

2P-AM-42 ☆Exploration of unknown bacterial growth substrates in tap water by non-targeted analysis and fragmentation pathway prediction based on quantum chemical calculation ([1]UTokyo, [2]Kagoshima Univ) °Yutaro Uehara[1], Hirokazu Takanashi[2], Ikuro Kasuga[1], Futoshi Kurisu[1]

2P-AM-43 Development of a Solid-Phase Microextraction Combined with GC-MS Platform for The Differentiation of Frozen Concentrated Milk and Fresh Milk. ([1]NCHU/Food Safety, [2]NCHU/Molecular Biology) °Ya-Ting Zhuang[1], Chien-Chen Lai[1,2]

2P-AM-44 ☆A Metabolomic LC-HRMS Approach for the Administration Route Classification of Altrenogest in Racehorses ([1]University of Technology Sydney, [2]Racing Analytical Services Limited, [3]Australian Racing Forensic Laboratory) °Madysen Elbourne[1], Adam Cawley[2], John Keledjian[3], Shanlin Fu[1]

2P-AM-45 Withdrawn

2P-AM-46 ☆The investigation into the metabolic pathways of synthetic cannabinoid receptor agonists (SCRAs) using human liver microsomes (HLM) ([1]CFS / UTS, [2]MaPS / UTS, [3]C3 / UTS, [4]Brain and Mind Centre / USyd) °Eathan Walker[1], Eric Sparkes[4], Morgan Alonzo[2], Unnikrishnan Kuzhiumparambil[3], Shanlin Fu[1]

2P-AM-47 Development of carbon isotopic measurement for pre-solar grains using TOF-SIMS M6 (Osaka Univ) °Nao Eguchi, Kei Sato, Kentaro Terada

2P-AM-48 Comparison Of Fast Scanning Data Dependent And Data Independent Acquisition Methods For A Multi-OMIC Cancer Study Using High-Speed Chromatography (Waters Corporation) °Davina Stewart

2P-AM-49 ☆Nonnegative Tensor Factorization Enables Precursor-Peptide-Protein Deconvolution in Data-independent Acquisition Mass Spectrometry ([1]Kyoto Univ. (Pharma), [2]Kyoto Univ. (Engr), [3]Kyoto Univ. (Info), [4]NIBIOHN) °Jherico Geronca[1], Kazuyoshi Yoshii[2], Toshiyuki Tanaka[3], Yasushi Ishihama[1,4]

2P-AM-50 Is branching coral distributed in the Japan Sea? ([1]JAMSTEC, [2]BSIP, [3]AORI, [4]TCU) °Kaoru Kubota[1], Pawan Govil[2], Kotaro Shirai[3], Kentaro Tanaka[4], Yusuke Yokoyama[1,3]

2P-AM-51 Characterization of lentiviral vector proteins by LC-MS/MS ([1]Sumitomo Pharma, [2]Osaka Univ., [3]Thermo Fisher Scientific) °Satomi Kasahara[1,2], Yuki Yamaguchi[2], Shio Watanabe[3], Daisuke Higo[3], Tetsuo Torisu[2], Susumu Uchiyama[2]

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[2P-PM] Poster Session 2P-PM
Poster Display : 8 : 15 ～19 : 00
Core time (Odd numbers) : 17 : 00 ～18 : 00
Core time (Even numbers) : 18 : 00 ～19 : 00

2P-PM-01 Phosphoproteomics Identifies CDK18 as a Key Driver in ccRCC Progression and Potential Therapeutic Target ([1]Fu Jen Univ., [2]Department of Medical Research, Cathay General Hospital, [3]National Defense Medical Center, [4]Sijhih Cathay General Hospital, [5]Cathay General Hospital) °Wei-Chi Ku[1], Chi-Jung Huang[2,3], Shao-Kuan Chen[4], Yen-Chieh Wang[1,5]

2P-PM-02 Small-molecule Fingerprinting Discriminated between Geographic Origins of White Shrimp ([1]NTU, [2]NTOU) °Wen-Ling Chen[1], Hsiao-Chi Hu[1], Fan-Hua Nan[2], Chien-Wei Tu[2]

2P-PM-03 Characterization of Lymphocyte-Rich Hepatocellular Carcinoma and the Prognostic Role of Tertiary Lymphoid Structures Using Spatial Proteomics ([1]Univ. of Ulsan, [2]Asan Medical Center, [3]Yonsei University, [4]Semyung University) Jiyoung Yu[2], Bokyung Kim[1], Yelin Lee[1], Jihyeon Kim[1], Minjoong Kim[1], Jung-Yoon Yoo[3], Sungryul Yu[4], °Kyung Kon Kim[1,2]

2P-PM-04 ☆Atomization by Acoustic Levitation Facilitates Contactless Microdroplet Reactions (Nankai Univ.) °Xiaoxu Li, Xinxing Zhang

2P-PM-05 (3C-03-1645) ☆A Streamlined Workflow for Rapid and Accurate Identification of Novel Bioavailable Forms of Microbial Metabolites in vivo by LC-Orbitrap-MSn with Smart Searchable Databases ([1]FSN/POLYU, [2]RiFood/POLYU, [3]RCMI/POLYU, [4]CEVR) °Jianing Liu[1,2], Weipeng Li[1,2], Fanghui Deng[1,2], Man-Kin Wong[1], Danyue Zhao[1,2,3,4]

2P-PM-06 ☆Studying Unfolding of Peptides and Glycopeptides Using Gas-Phase FRET Hyphenated with Mass Spectrometry (ETH Zurich) °Kim Greis, Linus Busse, Lukas Benzenberg, Ri Wu, Renato Zenobi

2P-PM-07 Case study of inter-laboratory multi-attribute method (MAM) data comparison in Japan using NIST mAb (Protein Metrics) °Ayako Kurimoto, Kadir Sen

2P-PM-08 A Comprehensive LC/MS Workflow for Host Cell Protein Identification Utilizing A Novel, Multi-reflecting ToF Mass Spectrometry Providing High Confidence Characterization And Quantification ([1]Nihon Waters, [2]Waters) °Etsuko Yada[1], Jonathan Fox[2], Ying Qing Yu[2], Kenji Hirose[1]

2P-PM-09 Theoretical Study on Single-Stage Reflectron TOF MS Attaining an Ultra-High Resolution for High m/z Ions (GRC) °Yi-Hong Cai, Yi-Sheng Wang

2P-PM-10 ☆Volatilomic Analysis on Authenticity Verification and Quality Assessment of Taiwan Oriental Beauty Oolong Tea ([1]IMB, NCHU, Taiwan, [2]NCYU, Taiwan, [3]Tea and Beverage Research Station, MOA, Taiwan) °Wei-Chen Wang[1], Cheng-Yu Kuo[1], Yi-Feng Cheng[1], Yen-Ching Lin[1], Han-Ju Chien[2], Chih-Chun Kuo[3], Hsuan-Han Huang[3], Hsien-Tsung Tsai[3], Tsung-Chen Su[3], Chien-Chen Lai[1]

2P-PM-11 A metabolomic study of distinguishing roasted coffee beans from Taiwan and Brazil. ([1]BCST, NCYU, [2]IMB, NCHU, [3]APBC, NCHU, [4]CMS, CMU, [5]CITFA, NCYU) °Jyun Cih Jian[1], Chien-Chen Lai[2,3,4], Han-Ju Chien[1,5]

2P-PM-12 High-Resolution Imaging and Rapid Detection of Ustalic Acid in *Tricholoma kakishimeji* Using MALDI-IMS and PESI-MS/MS ([1]Gifu Univ. Med. Sci., [2]Nagoya Univ., [3]Fukushima Univ., [4]Shinshu Univ., [5]Gifu Pref. Inst. Health Env. Sci.) °Tetsuro Ito[1], Shintaro Aritaki[2], Shu Taira[3], Wataru Aoki[4], Mimori Tsuji[4], Hiroyuki Nagai[5], Masashi Fukaya[1], Kaori Ryu[1], Katsuhiro Shiratake[2], Akiyoshi Yamada[4]

2P-PM-13 Proteomic Insights into Plant-PGPR Interactions : Elucidating Key Mechanisms During Commensalism (Academia Sinica) °Kai-Ting Fan, Ching-Huang Yu, Yet-Ran Chen

2P-PM-14 ☆Effects of Additional Gases on the Ions Generated by Atmospheric Pressure Plasmas ([1]NIT, Kochi Col., [2]Toyohashi Tech.) °Kokone Michikura[1], Kenkichi Nagato[1], Hirofumi Kurita[2]

2P-PM-15 ☆Pleckstrin Serves as a Prognostic Marker for COVID-19 and Promotes Pro-Thrombotic Symptoms via ERK Activation ([1]HKBU, [2]HKU) °Li Zhong[1], Lin Zhu[1], Runhong Zhou[2], Zhiwei Chen[2], Zongwei Cai[1]

2P-PM-16 (4B-02-1455) ☆Mass Spectrometric Analysis of Carcinogenic Areca Nut-Specific Alkaloids in Cooked *Areca catechu* L. : A Cautionary Note on Dietary Exposure ([1]NDMC, [2]CSMU) °Szu-Yi Chao[1], Chiao-Jou Yu[2], Yuan-Jhe Chang[2], Chiung-Wen Hu[2], Mu-Rong Chao[2]

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2P-PM-17 ☆PSD Fragmentation Characteristics of Linear and Cyclic O-Linked Glycopeptides and Their Peptide Backbones in MALDI-TOF/TOF MS (Hokkaido univ.) °Kohki Fukushi, Shogo Urakami, Hiroshi Hinou

2P-PM-18 MALDI-TOF MS analysis of unique *O*- and *N*-glycans on proteins in unfertilized salmon eggs using aminolysis-SALSA method ([1]Nagoya Univ. 1, [2]Nagoya Univ. 2) °Masaki Kurogochi[1], Kai Suzuki[1,2], Di Wu[1,2], Hisatoshi Hanamatsu[1], Ken Kitajima[1], Chihiro Sato[1,2], Jun-ichi Furukawa[1]

2P-PM-19 Application of Metal-free Column with InertMask technology in LC-MS/MS (GL Sciences Inc.) °Nozomi Murayama, Masanori Motokawa, Mika Kano, Junichi Hashimoto

2P-PM-20 AI-Based Detection of Sesame Oil Adulteration Using Metabolomics and Lipidomics Analysis (Sogang Univ.) °Seungwoo Hong, Han Bin Oh

2P-PM-21 ☆Development and validation of neonicotinoid insecticides in rice and tea leaves using isotope-dilution-UHPLC-MS/MS ([1]NYCU, [2]NYC Univ.) °Cheng-Bin Zhan[1], Yu-Fang Huang[2]

2P-PM-22 ☆Development of Targeted LC-MS/MS Platform for Precise NADHX Detection (Waseda Univ.) °Kodai Takahashi, Kazuki Nakajima, Nobuhito Goda

2P-PM-23 Targeted MS-Based Approach: Investigating the Role of Water in Cooking Oil Oxidation ([1]CSMU OSH, [2]CSMU PH) °Yan-Jhen Lin[1], Yi-Jhen Wang[1], Yuan-Jhe Chang[1], Mu-Rong Chao[1], Chiung-Wen Hu[2]

2P-PM-24 ☆An analytical platform for the comprehensive and efficient discovery of metabolite ligands for orphan receptors ([1]MIB, Kyushu Univ., [2]SLS, Kyushu Univ., [3]RIMD, Osaka Univ.) °Keisuke Nakata[1], Masatomo Takahashi[1,2], Taihei Torigoe[1], Noriyuki Tomiyasu[1,2], Kosuke Hata[1], Sho Yamasaki[3], Takeshi Bamba[1,2], Yoshihiro Izumi[1,2]

2P-PM-25 Withdrawn

2P-PM-26 ☆Mass Analysis of Ultra-High Molecular Weight Polystyrene: a Comparison of Copper and Silver Salts Using MALDI LIT-MS ([1]Department of Physics, National Dong Hwa Univ., [2]Department of Chemistry, National Dong Hwa Univ.) °Thị Khánh Ly Lại[1], Avinash Patil[1], Ching-Chieh Lee[1], Yi-Pang Chiu[1], Zhe-Xuan Liu[1], Che-Jen Lin[2], Wen-Ping Peng[1]

2P-PM-27 Enhancing Ion Introduction Efficiency with Two Types of Ion Deflection Electrodes in an Electrospray Ion Source ([1]Hitachi, [2]Hitachi High-Tech Science) °Motoki Date[1], Shun Kumano[1], Masaki Watanabe[2]

2P-PM-28 ☆Role of intracellular calcium increase in biological response to cold stress in human hepatoma HepG2 cells (Chiba Univ.) °Ayano Fukuda, Yoshikazu Yamagishi, Sayaka Nagasawa, Yasumitsu Ogra

2P-PM-29 Facilitating Proteomics Data Sharing: Automated Extraction and Annotation of Mass Spectrometry Metadata ([1]RIKEN TRIP, [2]Niigata Univ.) °Yusuke Azuma[1], Masami Koike[1], Yushi Takahashi[2], Akiyasu Yoshizawa[2], Shujiro Okuda[2], Shuichi Onami[1]

2P-PM-30 ☆Visualization of Food Compounds in Banana (*Musa* spp.) Tissue by Graphite Carbon Black-Assisted Laser Desorption Ionization-Mass Spectrometry Imaging ([1]Kyushu Univ., [2]Kyoto Univ., [3]NII, [4]Chuo Univ., [5]KISTEC) °Zhuofei Liu[1], Yuzuki Koga[1], Takenobu Ogawa[2], Imari Sato[3], Yukio Kawano[4,5], Toshiro Matsui[1], Mitsuru Tanaka[1]

2P-PM-31 Analysis of Allergens in Food using LC-MS/MS ([1]Shimadzu, [2]SAIKA) °Nozomi Maeshima[1], Kasumi Tokami[2], Eri Inagaki[2], Manami Kobayashi[1]

2P-PM-32 ☆A Mass Spectrometric Study of the Role of Water on the Paternò-Büchi (PB) Reaction between 2-Acetylpyridine and Unsaturated Fatty Acids (CUHK) °Danna Hu

2P-PM-33 (4B-01-1140) ☆Investigation of ligand transfer mechanism during collisional activation of protein complexes in native mass spectrometry (Zhejiang Univ.) °Shiwen Zhou, Mowei Zhou, Hongru Feng, Yuanjiang Pan

2P-PM-34 ☆Dissipation and Metabolic Fate of Sulfoxaflor in Thistle and Olive ([1]Kangwon Nat'l Univ., [2]Konkuk Univ.) °Eun-Song Choi[1], Min-Ho Song[1], Ji-Woo Yu[1,2], Jung-Hoon Lee[1], Hui-Yeon Ahn[2], Geon-Woo Park[2], Ji-Won Shin[2], Ji-Yeon Lee[2], Ha-Jin Son[2], Young-Soo Keum[2], Ji-Ho Lee[1]

2P-PM-35 Optimization of a new peak detection function and comparison for selecting a fit-for-purpose multi-attribute method system. (KKC) °Eriko Numao, Kumi Yanagisawa, Yuki Yagi, Daisuke Tsuchida, Katsuyoshi Yamazaki

Day 2, June 23 (Mon.)

2P-PM-36 Uniting amplified immuno-mass spectrometry imaging and fluorescent microscopy with lipid imaging by MALDI-MS in murine brain ([1]UTS, [2]UOW) °Mika Westerhausen[1,2], Jayden Mckinnon[2], Tassiani Sarretto[2], Shane Ellis[2], David Bishop[1]

2P-PM-37 ☆Characterization of Qβ Virus-Like Particles Using Orbitrap-Based Charge Detection Mass Spectrometry (CDMS) Approaches ([1]NCKU CHEM, [2]NCKU BME, [3]Thermo Fisher Scientific) °Hsi-Wen Wang[1], Ying-Ting Chiou[1], Hung-Wei Yang[2], Weijing Liu[3], Szu-Hsueh Lai[1]

2P-PM-38 ☆Cerebrospinal fluid metabolomics and lipidomics in autistic regression ([1]UTS, [2]NUS, [3]USYD) °Jinni Yan[1], Velda Han[2], Russell Dale[3]

2P-PM-39 ☆Probing Protein Structural Heterogeneity in Living Cells Using In-Cell Mass Spectrometry and Vacuum Ultraviolet Photodissociation ([1]DICP, [2]UCAS) °Shirui Yang[1,2], Zheyi Liu[1,2], Fangjun Wang[1,2]

2P-PM-40 ☆Thiol Profiling Based on Live-Cell Derivatization (CCME, PKU) °Daiyu Miao, Yu Bai

2P-PM-41 ☆Comparative Metabolome Analysis of *Saccharomyces cerevisiae* under different Aeration Conditions ([1]Osaka Univ., [2]OTRI, [3]Osaka Univ. Shimadzu Lab.) °Tomoki Kitamura[1], Takafumi Iwakura[1], Taisuke Seike[1,2], Nobuyuki Okahashi[1,2,3], Fumio Matsuda[1,2,3]

2P-PM-42 ☆Evaluation of metabolite extraction methods applicable to various yeast species ([1]Osaka Univ., [2]OTRI, [3]Osaka Univ. Shimadzu Lab.) °Hiroaki Ueno[1], Ayumu Fuke[1], Taisuke Seike[1,2], Nobuyuki Okahashi[1,2,3], Fumio Matsuda[1,2,3]

2P-PM-43 Advanced *De Novo* Peptide Sequencing Using *N*-terminal Coumarin Derivatization Aided LC-MS/MS for Peptidomics Analysis (Kyushu Univ.) °Mitsuru Tanaka, Hui Luan, Fumiya Honda, Yizhi Xiao, Risa Katagihara, Ryosuke Kaneko, Toshiro Matsui

2P-PM-44 Exploring of antifungal compounds produced by *Streptomyces* sp. ES9 ([1]Grad. Sch. BOST, Kindai Univ., [2]TGA Co., Ltd) °Asahi Kawabe[1], Tatsuya Ohike[1,2], Ayano Fujisawa[1], Tetsuya Matsukawa[1], Takashi Ano[1], Shin'ichiro Kajiyama[1]

2P-PM-45 (4A-02-1455) ☆Real-time environmental monitoring method of clean rooms for extraterrestrial samples with GED-ICP-MS/MS ([1]JAXA, [2]Marin Work Japan) °Ryota Fukai[1], Arisa Nakano[1], Masahiro Nishimura[1], Yuya Hitomi[2]

2P-PM-46 Cyclopeptides from *Amaioua*, a new mass spectrometry approach ([1]UFG/ Goias Fed. Univ., [2]CRTI/UFG) °Lucilia Kato[1], Emiret de Faria[1], Cecilia de Oliveira[2]

2P-PM-47 ☆Advancing Herbal Medicine Evaluation Through Pharmacokinetic-Driven Bioinformatics Strategies (Hanyang Univ.) °Jeong In Seo, Hye Hyun Yoo

2P-PM-48 ☆Localization of neutral sugar and lipid compounds in strawberry fruit organs during ripening ([1]Kyoto Univ., [2]Agilent) °Misaki Ishibashi[1], Kyoko Yasuda[2], Takeshi Serino[2], Akira Oikawa[1]

2P-PM-49 ☆Dual Ionization Ion Mobility Mass Spectrometry Hyphenated with Catalytic Oxygenation-Mediated Extraction (NTHU) °Tzu-Ching Tsai, Maheswar Chamarthi, Pawel Urban

2P-PM-50 ☆Si Pillar Structure for Efficient Laser Soft Ionization ([1]Hokkaido Univ., [2]JEOL, [3]Osaka Univ., [4]RIES, Hokkaido Univ.) °Yusuke Fujii[1], Junichi Osuga[2], Hiroshi Furutani[3], Michisato Toyoda[3], Yasutaka Matsuo[4]

2P-PM-51 Probing single-molecule protein glycosylation and its structural impact using PTR-based native mass spectrometry ([1]IBC, Academia Sinica, [2]IBS, NTU) °Hsin-Yung Yen[1,2], Ning-En Chang[1], Guan-Ting Lian[1,2], Yi-An Chen[1], Yu-Xi Tsai[1], Kay-Hooi Khoo[1,2], Shang-Te Hsu[1,2]

2P-PM-52 Spatial Lipidomics with High Structural Specificity by Ion Mobility Modulation (Tsinghua Univ.) °Xiaoxiao Ma, Yao Qian

〈Corporate Posters〉

[2P-CP] Corporate Posters 2P-CP

Poster Display and Presentation : 8 : 15 ～ 19 : 00

2P-CP-01 IMMUNOPEPTIDE ANALYSIS WITH A MODIFIED ORBITRAP ASTRAL MASS SPECTROMETER MAXIMIZES PEPTIDE DETECTION AND QUANTITATION IN PROTEIN DEGRADER APPLICATIONS ([1]AbbVie, Inc., [2]Thermo Fisher Singapore San Jose, [3]Thermo Fisher Scientific Singapore) Angeline Chen[1], Fernanda Salvato[2], °Nicole Zhang[3]

Day 2, June 23 (Mon.)

2P-CP-02 LC-MS WORKFLOWS FOR DIVERSE OMICS ANALYSIS OF PLASMA SAMPLES IN A MINI CANCER COHORT USING THE ORBITRAP ASTRAL MASS SPECTROMETER ([1]Thermo Fisher Scientific San Jose, [2]Thermo Fisher Scientific Singapore) Kevin Yang[1], °Nicole Zhang[2]

2P-CP-03 REVOLUTIONIZING TRANSLATIONAL RESEARCH: LARGE-SCALE TARGETED PRM PROTEOMICS ASSAYS ENABLED BY STELLAR MASS SPECTROMETER (MS) ([1]Thermo Fisher Scientific, [2]Thermo Fisher Scientific San Jose, [3]Thermo Fisher Scientific Singapore) Scott Peterman[1], Qingling Li[2], °Nicole Zhang[3]

Day 3, June 24 (Tue.)

Room A (Maesato West)

⟨Plenary Lecture⟩

[3-PL] Plenary Lecture Ⅲ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:15 ～ 9:15) Chair: Masahiro Miyashita (Kyoto University)

3-PL-0815 From Toxins to Therapeutics: Atrial Natriuretic Peptide Analogs for the Tailored Treatment of Acute Decompensated Heart Failure ([1]Natl Univ Singapore, [2]VCU Richmond VA) °Manjunatha Kini[1,2]

⟨Oral Sessions⟩

[3A-01] Mass Spectrometry in Therapeutic Modality Research-1

(11:25 ～ 12:40) Chair: Susumu Uchiyama (The University of Osaka) / Nana Kawasaki (Yokohama City University)

3A-01-1125 [Keynote]Metabolomics-Based Approaches to Drive the Development of Optimal Biotherapeutics Production Processes and the Unravelling of Disease Mechanisms ([1]A*STAR BTI, [2]A*STAR IMCB, [3]A*STAR GIS, [4]Duke-NUS, [5]SNEC, [6]SERI, [7]Ozaki Eye Hospital, [8]YLL School of Medicine, NUS, [9]Dept. of Biological Sciences, NUS) °Ying Swan Ho[1], Yin Ying Ho[1], Annie Soh[1], Shi Ya Mak[1], Shuwen Chen[1], Esther Peh[1], Yu Hui Kang[1], Boon Min Poh[2], Boon Seng Soh[2,9], Gamal Ahmed Elfar[2], Chit Fang Cheok[2,8], Sai Kiang Lim[2], Meiyappan Lakshmanan[1], Zhenxun Wang[3,4,6], Chiea Chuen Khor[3,6,8], Zach Pang[1], Say Kong Ng[1], Andy Tan[1], Xuezhi Bi[1,4], Tin Aung[5,6,8], Mineo Ozaki[6,7], Andre Choo[1]

3A-01-1155 [Invited]Reference material: Tool for traceable measurement and characterization of monoclonal antibody ([1]NMIJ/AIST, [2]Yokohama City Univ., [3]Kindai Univ.) °Tomoya Kinumi[1], Daisuke Takakura[2], Nana Kawasaki[2], Mitsuhiro Kinoshita[3]

3A-01-1210 [Invited]Multi Attribute Method for antibody therapeutics (Astellas Pharma Inc.) °Naoki Kawase

3A-01-1225 Utilizing of Antigens with Uniformed N-linked Glycans Facilitate Epitope Analysis of Glycoproteins via HDX-MS ([1]Pharmaceutical Technology Research Division, SHIONOGI, [2]Vaccine Business Division, SHIONOGI) °Takeshi Ota[1], Masahiro Takayama[1], Takeshi Ishihara[2], Masaaki Sato[2], Sawaka Ono[1], Ryota Futamata[2], Masaya Fujitani[2], Miwa Aoki[2], Akio Suzuki[2], Shinya Omoto[2], Masatomo Rokushima[2], Hiroshi Ueda[1]

⟨Luncheon Seminar⟩

[3A-L] Luncheon Seminar (Presented by SCIEX)

(12:45 ～13:45)

3A-L-1245-1 Evolution of DIA in SCIEX: SWATH, Zeno-SWATH, and ZT-Scan DIA, The Radicals Strike Back: Enhancing electron-activated dissociation of fatty acids using caged-radical derivatives (Kumamoto Univ) °Sumio Ohtsuki

3A-L-1245-2 The Radicals Strike Back: Enhancing electron-activated dissociation of fatty acids using caged-radical derivatives (Queensland University of Technology) °Stephen Blanksby

⟨Oral Sessions⟩

[3A-02] Mass Spectrometry in Therapeutic Modality Research-2

(13:55 ～ 15:10) Chair: Nana Kawasaki (Yokohama City University) / Susumu Uchiyama (The University of Osaka)

3A-02-1355 [Keynote]Biophysical characterization of virus vectors for gene therapy by mass spectrometry (Osaka Univ.) °Susumu Uchiyama

3A-02-1410 [Invited]Comprehensive Glycomic Profiling of Immunoglobulin G, A, and M in Tuberculosis: Insights into Active and Latent Infection in the Elderly ([1]Taipei Medical University, Taiwan, [2]Wan-Fang Hospital, Taiwan) Yun-Jung Yang[1], Chih-Hsin Lee[2], °I-Lin Tsai[1]

Day 3, June 24 (Tue.)

3A-02-1425 Quantitative proteomic analysis of SCN1A gene knockout in cerebral organoids during differentiation for underlying Dravet syndrome ([1]KRISS, [2]KRICT, [3]GIST) Young Eun Kim[1,3], Byunmseok Koh[2], Sung Bum Park[2], Sung-Hee Cho[2], Tae-Young Kim[3], Myung Ae Bae[2], Ki Young Kim[2], °Dukjin Kang[1]

3A-02-1440 Sequence Characterization for RNA Therapeutics: Leveraging Multiple Ribonucleases and DIA Mass Spectrometry ([1]MKI, [2]Waters) °Yuki Matsubara[1], Akari Ito[1], Catalin Doneanu[2], Yasuto Yokoi[1]

3A-02-1455 (4P-AM-27) ☆Multimass Analysis of Adeno-Associated Virus Vectors by Orbitrap-Based Charge Detection Mass Spectrometry ([1]Osaka Univ., [2]Shimadzu Corp., [3]Osaka Univ. Shimadzu AIRL, [4]U-Medico Inc.) °Ryoji Nakatsuka[1,2,3], Yuki Yamaguchi[1], Kiichi Hirohata[1], Saki Shimojo[1], Makoto Murakami[1], Mark Allen Rocafort[4], Yasuo Tsunaka[1], Mitsuko Fukuhara[1,4], Tetsuo Torisu[1], Susumu Uchiyama[1]

⟨Teatime Session⟩

[3A-T] Teatime Session (Technical Seminar for Staff Scientists & Core Lab Managers)

(15:10 ～ 15:40)

3A-T-1510 Technical Seminar for Staff Scientists & Core Lab Managers

⟨Oral Sessions⟩

[3A-03] Mass Spectrometry of Bioactive Molecules

(15:45 ～ 17:00) Chair: Masahiro Miyashita (Kyoto University) / Tohru Yamagaki (Suntory Foundation for Life Sciences)

3A-03-1545 [Keynote]Mass Spectrometry in the de novo Sequencing of Bioactive Non-tryptic Amphibian Peptides (MSU-BIT Shenzhen Univ.) °Albert Lebedev, Tatiana Samgina

3A-03-1615 Comparison of the components of the *Liocheles australasiae* scorpion venom between different growth stages or colors (Kyoto Univ.) Kentaro Kojima, Ryo Shimase, Yoshiaki Nakagawa, °Masahiro Miyashita

3A-03-1630 (4P-AM-20) ☆Investigating the distribution of azetidine-2-carboxylic acid (A2C) in plants using HILIC-MS/MS ([1]UTS, [2]HyMaS, [3]UNSW) °Connor Phillips[1,2], Jake Violi[3], David Bishop[2], Kenneth Rodgers[1]

3A-03-1645 Synthesis of Core-Shell Mesoporous Silica-TiO_2 Nanocomposite Functionalized with Boronic Acid for Selective and Efficient Glycopeptide Enrichment (CNU) °Mohamed Gab-Allah, Jeongkwon Kim

Room B (Maesato Center)

⟨Plenary Lecture⟩

[3-PL] Plenary Lecture Ⅲ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:15 ～ 9:15) Chair: Masahiro Miyashita (Kyoto University)

3-PL-0815 From Toxins to Therapeutics: Atrial Natriuretic Peptide Analogs for the Tailored Treatment of Acute Decompensated Heart Failure ([1]Natl Univ Singapore, [2]VCU Richmond VA) °Manjunatha Kini[1,2]

⟨Oral Sessions⟩

[3B-01] Frontiers in Mass Spectrometry Imaging -Methods and Instrumentation-

(11:25 ～ 12:40) Chair: Shuichi Shimma (The University of Osaka) / Yoichi Otsuka (The University of Osaka)

3B-01-1125 Developments of laser desorption Post-photoionization Mass Spectrometry Imaging Techniques (Univ. Sci. Tech. China) °Yang Pan

3B-01-1140 (4P-AM-02) ☆Single Tissue Multimodal Imaging for Cellular-level Spatial Metabolomics and Transcriptomics Analysis ([1]HKBU, [2]EIT Ningbo) °Thomas Ka Yam Lam[1], Bingxu Zhang[1], Jianing Wang[1], Zongwei Cai[1,2], Yiji Xia[1]

Day 3, June 24 (Tue.)

3B-01-1155 Fully automated surface lipidomics by LC/differential ion mobility spectrometry/MS reveals alteration of brain lipid metabolism in prodromal Parkinson's disease model mice ([1]Juntendo Univ., [2]RIKEN, [3]Kyoto Univ.) °Hisako Akiyama[1,2], Keiko Fukasawa[1,2], Tomoyuki Taguchi[3], Masashi Ikuno[3], Hodaka Yamakado[3], Peter Greimel[2], Ryosuke Takahashi[3], Nobutaka Hattori[1,2], Hiroyuki Kamiguchi[2]

3B-01-1210 MS Imaging of Natural Moisturizing Factors in Mouse Skin. ([1]Kobe Univ, [2]Shimadzu Corp.) °Akiko Kubo[1], Kaoru Nakagawa[2], Takeshi Fukumoto[1], Manami Kobayashi[2], Akiharu Kubo[1]

3B-01-1225 Targeted spatial metabolomics and transcriptomics for mapping metabolism in the human lung ([1]Karolinska Institute, [2]Stockholm University, [3]Karolinska University Hospital) Matthew Smith[1], Jesper Säfholm[1,3], Alexandra Firsova[2], Christos Samakovlis[2], °Craig Wheelock[1,3]

〈Luncheon Seminar〉

[3B-L] Luncheon Seminar (Presented by Shimadzu Corporation)

(12:45 ～ 13:45)

3B-L-1245 Approach to cutting-edge research by MALDI-TOF MS (Shimadzu Corp.) °Takushi Yamamoto, Tsukasa Takeuchi, Ryo Yamaguchi

〈Oral Sessions〉

[3B-02] Sharing and Analysis of Mass Spectrometry Data

(13:55 ～ 15:10) Chair: Fumio Matsuda (The University of Osaka)

3B-02-1355 [Invited]Network-based Integration of Cross-Study Metabolomics Data ([1]Kyushu Inst. Tech., [2]RIKEN, [3]Keio Univ., [4]HMT, [5]Tokyo Univ. Agr. Tech., [6]Kitasato Univ.) °Eisuke Hayakawa[1,2], Kozo Nishida[2], Mikiko Takahashi[2], Rira Matsuta[3], Takaki Oka[5], Hiroyuki Yamamoto[4], Hiroshi Tsugawa[2,5], Shin Kawano[6]

3B-02-1410 [Invited]Development of LC-MS/MS Software for Controlled Substance Identification (Sogang Univ.) So Yeon Lee, °Han Bin Oh

3B-02-1425 AI-Driven Analysis of Mass Spectrometry Imaging (Hamamatsu Univ Sch Med) °Mitsutoshi Setou

3B-02-1440 Improving structure elucidation using machine learning for non-target analysis using Gas Chromatograph-Mass Spectrometer (JEOL) °Ayumi Kubo, Azusa Kubota, Kenji Nagatomo, Masaaki Ubukata

3B-02-1455 Multiple Omics Data Repositories for Comprehensive Reanalysis of Mass Spectrometry Data ([1]Niigata Univ., [2]Osaka Univ., [3]Soka Univ., [4]Kyoto Univ.) °Yushi Takahashi[1], Akiyasu Yoshizawa[1], Fumio Matsuda[2], Kiyoko Aoki-Kinoshita[3], Yasushi Ishihama[4], Shujiro Okuda[1]

〈Teatime Session〉

[3B-T] Teatime Session (Presented by BRUKER)

(15:10 ～ 15:40)

3B-T-1510 Advances in Magnetic Resonance Mass Spectrometry (MRMS) Magnet Technologies and Instrumentation – Built to Enable World Class Science ([1]Bruker, [2]Bruker Daltonics) °Mike Greig[1], Christopher Wootton[2], Paul Speir[1], Jochen Friedrich[2], Michael Easterling[1]

〈Oral Sessions〉

[3B-03] Advances in Mass Spectrometry for the Detection of Ultra-Trace Elements and Isotopes in Earth and Space Sciences

(15:45 ～ 17:00) Chair: Yusuke Yokoyama (The University of Tokyo) / Hirochika Sumino (The University of Tokyo)

3B-03-1545 [Keynote]Accelerator Mass Spectrometry: Enabling Measurements of Ultra-Trace Radionuclides for Applications in Earth and Space Sciences (NPAA / RSPhys / CoSM / ANU) °Michaela Froehlich

Day 3, June 24 (Tue.)

3B-03-1600 [Invited]Accelerator Mass Spectrometry Development and Capabilities at the Australian National University (ANU) °Stephen Tims, Keith Fifield, Stefan Pavetich, Michaela Froehlich, Peter Medley

3B-03-1615 Carbon cycle study with regards to climate and bio-sciences using PIMS and SSAMS at Atmosphere and Ocean Research Institute, The University of Tokyo ([1]AORI, UTokyo, [2]DEPS, UTokyo, [3]GPES, UTokyo, [4]RSPhys., ANU) °Yusuke Yokoyama[1,2,3,4]

3B-03-1630 [Invited]Highly-sensitive LA-ICP-MS approaches for the determination of ultra-trace rare earth elements (REEs) and U-Th isotopes in stalagmites ([1]Nanjing Normal University, [2]National Taiwan University, [3]ETH Zurich) °Chung-Che Wu[1], Chuan-Chou Shen[2], Detlef Günther[3], Bodo Hattendorf[3]

3B-03-1645 Improvement of sensitivity of electron ionization source for noble gas mass spectrometer using ion beam focusing by electrostatic quadrupole lenses (Univ. Tokyo) °Hirochika Sumino

Room C (Top of Yaima)

⟨Plenary Lecture⟩

[3-PL] Plenary Lecture Ⅲ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:15 ～ 9:15) Chair: Masahiro Miyashita (Kyoto University)

3-PL-0815 From Toxins to Therapeutics: Atrial Natriuretic Peptide Analogs for the Tailored Treatment of Acute Decompensated Heart Failure ([1]Natl Univ Singapore, [2]VCU Richmond VA) °Manjunatha Kini[1,2]

⟨Oral Sessions⟩

[3C-01] Clinical Mass Spectrometry and Reverse Translational Research -From Diagnostic and Treatment Application to Pathological Analysis- Part Ⅱ

(11:25 ～ 12:40) Chair: Daisuke Saigusa (Teikyo University) / Masamitsu Maekawa (Tohoku University)

3C-01-1125 [Invited]RNA epitranscriptome in clinical diagnosis and beyond ([1]Tohoku Univ. IDAC, [2]Tohoku Univ. Pharm. Sci.) °Fan-Yan Wei[1,2], Akiko Ogawa[1,2]

3C-01-1140 Xlinking MS for structure analysis of tau/phosphorylated tau and other proteins (PTB) °Cristian Arsene, Anne-Katrin Römmert

3C-01-1155 (4P-AM-01) ☆Towards Rapid and Accurate Bacterial Serotyping Using MALDI Glycotyping (Hokkaido Univ.) °Shogo Urakami, Hiroshi Hinou

3C-01-1210 Breath biomarkers for monitoring lipid peroxidation and ferroptosis in vivo (Kyoto Univ.) °Yuta Matsuoka, Yuki Sugiura

3C-01-1225 (4P-AM-15) ☆Molecular composition and imaging profiles of thrombi in acute coronary syndrome (Dokkyo Medical Univ.) °Mayo Wada, Tadayuki Ogawa, Setsu Nishino, Masashi Sakuma, Sigeru Toyoda

⟨Luncheon Seminar⟩

[3C-L] Luncheon Seminar (Presented by Waters Corporation)

(12:45 ～ 13:45)

3C-L-1245 Mastering Metabolomic and Lipidomic Workflows: Strategies, Challenges, and Essential Tools ([1]Waters Corp, [2]Tsinghua Uni) °Jayne Kirk[1], Zheng Ouyang[2]

⟨Oral Sessions⟩

[3C-02] Single-Cell Omics and Multiomics

(13:55 ～ 15:10) Chair: Yasushi Ishihama (Kyoto University) / Takeshi Bamba (Kyushu University)

3C-02-1355 [Keynote]Dynamic single-cell metabolomics platform and the application in cell-cell interaction (Peking Univ.) °Yu Bai

Day 3, June 24 (Tue.)

3C-02-1410 [Invited]Localization Analysis of Metabolites in Living Cells by Live Single-cell Mass Spectrometry ([1]Meijo Univ., [2]Univ. Shizuoka, [3]Yokogawa Electric Corp., [4]ITO EN) °Hajime Mizuno[1], Aogu Furusho[2], Takuma Yanagisawa[1,2], Eiji Sugiyama[1], Yuta Terui[3], Masafumi Iharada[3], Hironori Takai[3], Susumu Imanishi[1], Kenichiro Todoroki[2], Iwao Sakane[4]

3C-02-1425 Application of ultrasensitive mass spectrometry-based single cell proteomics to address individual cell response (IMCB, A*STAR Singapore) Tianyun Zhao, Maxine Lam, Hiromi Koh, °Radoslaw Sobota

3C-02-1440 (4P-AM-32) ☆MiProChip: Microfluidic Device for Multiplexed Isotopic labeling-based Streamlined Single-cell Profiling ([1]IoC, AS, [2]NTU) °Huan-Chi Chiu[1,2], Tsai-Fang Chou[1], Sofani Gebreyesus[1], Guan-Fu Chen[1], Hsiung-Lin Tu[1], Yu-Ju Chen[1,2]

3C-02-1455 [Invited]Multi-omics measurement platform driving next-generation biomanufacturing ([1]Kyushu Univ., [2]NAIST, [3]Waseda Univ., [4]Niigata Univ., [5]Yamaguchi Univ., [6]Tokushima Univ.) °Yoshihiro Izumi[1], Yuki Soma[2], Masahito Hosokawa[3], Atsushi Hatano[4], Kazuki Ikeda[1], Kosuke Hata[1], Taihei Torigoe[1], Masatomo Takahashi[1], Masahiro Ando[3], Shinsuke Uda[5], Shinsuke Inuki[6], Haruko Takeyama[3], Masaki Matsumoto[4], Takeshi Bamba[1]

[3C-03] Cutting-Edge Metabolomics Technology and Applied Research

(15:45 ~ 17:00) Chair: Takeshi Bamba (Kyushu University) / Akiyoshi Hirayama (Keio University)

3C-03-1545 [Keynote]Integrated MS-based OMICs to Reveal Intercellular Communication Events in Plant Systemic Immunity (Academia Sinica) °Yet-Ran Chen

3C-03-1600 [Invited]Two-Dimensional Imaging of ^{13}C-Glucose Tracing in Metabolome Analysis Using DESI-TQ-MS (Kyoto Univ.) °Yuki Sugiura

3C-03-1615 A High-Sensitivity Derivatization Strategy for Enhanced Hydroxyl Metabolite Detection in LC-MS and DESI-MS ([1]National Yang Ming Chiao Tung University, [2]National Taiwan University Hospital, [3]National Taiwan University) Yen-Chu Lin[1], Guan-Yuan Chen[2,3], °Hsiao-Wei Liao[1]

3C-03-1630 [Invited]Development and Application of Unified-HILIC/AEX/MS for Comprehensive and Practical Metabolomics ([1]Niigata Univ., [2]Kyushu Univ./MiB) °Kohta Nakatani[1,2], Yoshihiro Izumi[2], Masatomo Takahashi[2], Takeshi Bamba[2]

3C-03-1645 (2P-PM-05) ☆A Streamlined Workflow for Rapid and Accurate Identification of Novel Bioavailable Forms of Microbial Metabolites in vivo by LC-Orbitrap-MSn with Smart Searchable Databases ([1]FSN/POLYU, [2]RiFood/POLYU, [3]RCMI/POLYU, [4]CEVR) °Jianing Liu[1,2], Weipeng Li[1,2], Fanghui Deng[1,2], Man-Kin Wong[1], Danyue Zhao[1,2,3,4]

〈Poster Presentations〉

Room P (Maesato East, Foyer, Ocean Wing)

[3P-AM] Poster Session 3P-AM

Poster Display: 8:15 ~ 19:00

Core time (Odd numbers): 9:15 ~ 10:15

Core time (Even numbers): 10:15 ~ 11:15

#For banquet participants, the poster removal time is preferably at 21:00.

3P-AM-01 Capture of Hydroxyl Radicals by Hydronium Cations and the Spontaneous Oxidation of I- in Water Microdroplets (Nankai Univ.) °Dong Xing, Xinxing Zhang

3P-AM-02 A metabolomic study of the temperature impact of hand-drip brewing of washed coffee beans ([1]NCYU, [2]ITFA) °Han-Ju Chien[1,2], Ya-Ting Pan[1]

3P-AM-03 Visualization of Ginger Polyphenols at Different Heating Times Using MALDI-MSI (Osaka Univ.) °Rika Fujimoto

3P-AM-04 (2B-01-1240) ☆Chiral Recognition by Mass Spectrometry with the Combinations of Two Chiral Selectors ([1]PolyU, [2]CityU) °Qi Yi[1], Yiqi Sheng[2], Chi-Kit Siu[2], Zhong-Ping Yao[1]

Day 3, June 24 (Tue.)

3P-AM-05 ☆Biomarker Discovery of Cerebrospinal Fluids for the Infantile Epilepsy by the Lipidomic Profiling of Extracellular Vesicles ([1]Teikyo Univ., [2]Okayama Univ., [3]Tohoku Univ.) °Arisa Ishii[1], Tomoko Fukuuchi[1], Noriko Yamaoka[1], Tomoyuki Akiyama[2], Daisuke Saigusa[1,3]

3P-AM-06 ☆Fluorinated Liquid Crystal Monomer (FLCM) Induces Kidney Dysfunction by Disrupting PPARα-mediated Fatty Acid Oxidation (HKBU) °Lin Peng, Zongwei Cai

3P-AM-07 ☆Development of In-situ High-pressure Electrospray Mass Spectrometry for Continuous Flow Hydrothermal Reactor ([1]Univ. of Yamanashi/HDU, [2]HDU, [3]Univ. of Yamanashi) °Xiang Zhang[1], Zhi Hua Ying[2], Lee Chuin Chen[3]

3P-AM-08 Differentially expressed proteins in 4-cell stage porcine embryos derived from somatic cell nuclear transfer and parthenogenetic activation ([1]NCHU Univ., [2]ATRI, [3]CMU) °Shu-Ping Chang[1], Chi-Hong Wong[2], Shu-Hui Peng[2], Hsin-Yi Liao[3], Pin-Chi Tang[1], Ching-Fu Tu[2], Chao-Jung Chen[3], San-Yuan Huang[1]

3P-AM-09 A Novel Approach for Quantifying Therapeutic Monoclonal Antibodies in Blood through Liquid Chromatography–Tandem Mass Spectrometry ([1]NTUH, [2]NTU) °Huai-Hsuan Chiu[1], Tsun-Hao Chi[2], Chiao Lo[1], Shin-Yi Lin[1], Ching-Hua Kuo[2]

3P-AM-10 A machine learning model for site-specific classification of N-glycoprotein fucosylation using tandem mass spectrometry and deep neural network ([1]KBSI, [2]KRIBB, [3]UST) °Mina Park[1], Jin Young Kim[1,2], Heeyoun Hwang[1,3]

3P-AM-11 ☆Simulation and Experimental Study of a Photoionization Linear Ion Trap Mass Spectrometer (NSRL,USTC) °Guangqi Wang

3P-AM-12 An Easy Workflow for the Characterization and Relative Quantification of Recombinant Adeno-Associated Viruses (rAAVs) using Charge Detection Mass Spectrometry ([1]Nihon Waters, [2]Waters) °Kenji Hirose[1], Etsuko Yada[1], Anisha Haris[2], Rebecca D'esposito[2], Kevin Giles[2]

3P-AM-13 Quantitative proteomics using high-sensitivity data-independent acquisition ([1]K.K. AB SCIEX, [2]SCIEX, Canada) °Takeshi Shibata[1], Ushio Takeda[1], Ihor Batruch[2], Patrick Pribil[2]

3P-AM-14 ☆Quantitative Peptidomics Revealed a Novel Peptide Cytokine for Eliciting Plant Immunity by Pathogen-Associated Molecular Pattern ([1]ABRC, Academia Sinica, [2]IOB, National Taiwan Univ.) °Sheng-Chi Hung[1,2], Kai-Ting Fan[1], Jia-Wei Hsu[1], Yet-Ran Chen[1,2]

3P-AM-15 (2B-01-1225) ☆Development and Applications of Portable Gas Chromatograph-Mass Spectrometer System with Built-in Preconcentrator ([1]Graduate School of Science, Osaka Univ., [2]College of Science, NTNU) °Ping Chen[1,2], Tsung-Han Lee[2], Chia-Jung Lu[2], Michisato Toyoda[1]

3P-AM-16 ☆Metal-Organic Frameworks as Novel Platforms for Capturing and Identifying Tuberculosis Proteins Using MALDI-TOF Mass Spectrometry ([1]Dept. of Physics, NDHU, [2]Dept. of Laboratory Medicine and Biotechnology, TCU, [3]Dept. of Internal Medicine, HTC Hospital and BTCM Foundation, TCU, [4]Dept. of Material Science, NDHU) °Vaishnavi Dhisale[1], Mhikee Descanzo[1], Avinash Patil[1], Sanath Kumar[4], Yu-Tze Horng[2], Chih-Bin Lin[3], Po-Chi Soo[2], Yen-Pei Fu[4], Wen-Ping Peng[1]

3P-AM-17 ☆Analysis of serine-related lipid changes in Niemann-Pick disease type C model mice using an improved analytical method ([1]Grad. Sch. Pharm. Sci., Tohoku Univ., [2]Dept. Pharm. Sci., Tohoku Univ. Hosp., [3]Tohoku Univ. Grad. Sch. Med., [4]INGEM., Tohoku Univ.) °Keitaro Miyoshi[1], Masamitsu Maekawa[1,2,3,4], Mikiko Suzuki[3,4], Nariyasu Mano[1,2,3]

3P-AM-18 Determination of Benzophenone-type UV filters in Urine of Taiwanese Young Adults by Liquid-Liquid Extraction-based UHPLC–MS/MS ([1]NYCU, [2]NYC Univ.) °Si-Yu Liu[1], Yu-Fang Huang[2]

3P-AM-19 Development of a Compact t-SPESI System for High-sensitivity Mass Spectrometry Imaging of Biological Tissue ([1]Grad. Sch. Sci., Univ. Osaka, [2]FRC, Univ. Osaka, [3]Grad. Sch. Eng., Univ. Osaka) °Yoichi Otsuka[1,2], Takao Yasuda[1], Mengze Sun[1], Zhou Yang[1], Shuichi Shimma[3], Michisato Toyoda[1,2]

3P-AM-20 ☆Association between prenatal exposure to benzophenones and birth outcomes (IEOHS, NYCU) °Wei-Hsuan Tu, Mei-Lien Chen, Yu-Fang Huang

Day 3, June 24 (Tue.)

3P-AM-21 Accurate Mass Calibration Variability and Ion Species Complexity in Inter-Laboratory LC/MS Analysis ([1]TotttoriUnivEnvStud, [2]Osaka Univ, [3]Natl Inst Environ Stud, [4]Iwate Pref Env Health Res Cent, [5]Nagasaki Pref Inst Env Pub Health, [6]Kobe Inst Health, [7]Res Inst Env Agric Fish Osaka Pref, [8]Fukuoka City Inst Health Env) °Atsushi Yamamoto[1,2], Hidenori Matsukami[3], Tomoko Ito[4], Masafumi Egawa[5], Yuya Deguchi[5], Tomohiro Yoshino[6], Junko Ono[7], Etsuko Miyazaki[8], Shunji Hashimoto[3]

3P-AM-22 ☆Development of a Pin-point Probe ESI-MS system with Robotic Automation ([1]HDU/Univ. of Yamanashi, [2]HDU, [3]Univ. of Yamanashi) °Lei Li[1], Qiangqiang Xie[2], Lee Chuin Chen[3], Satoshi Ninomiya[3]

3P-AM-23 Comparative Analysis of Effector Function-Related Anti-RBD IgG Glycosylation Profiles in End-Stage Renal Disease Patients After COVID-19 Vaccination ([1]Taipei Medical University, Taiwan, [2]Wan Fang Hospital-Nephrology, Taiwan, [3]Wan Fang Hospital-Pulmonary, Taiwan) °Kai-Tang Yu[1], Chung-Yi Cheng[2], Chih-Hsin Lee[3], I-Lin Tsai[1]

3P-AM-24 ☆Development of a Rapid and Highly Sensitive Detection Method for Per- and Polyfluoroalkyl Substances Using the Isotope Dilution Method and Its Application in Evaluating the PFAS Levels in Chronic Kidney Disease Patients Before and After Oral Activate (NYCU) °Yen-Erh Chen, Han-Hsing Tsou

3P-AM-25 Assessment of the solvent-accessible surfaces of proteins observed by LC-MS ([1]Sch. of Sci., Kitasato Univ., [2]Cent. Disease Proteomics, Sch. of Sci., Kitasato Univ.) Eiji Kojitani[1], Arisa Suto[1], Taichi Takasawa[1], Yoshio Kodera[1,2], °Takashi Matsui[1,2]

3P-AM-26 ☆Enhanced Proteomic Profiling through Dual-Labeling BioID-MS Targeting the ER and Golgi Apparatus ([1]CityU, [2]HKSMS) °Fenglian Yang[1,2], Liang Zhang[1,2]

3P-AM-27 Imaging Analysis of Steroids in Adrenal Glands Using SALDI/MS with Metal Films ([1]Toyama Prefectural University, [2]Kanazawa University) °Kokoro Okawa[1], Riko Takata[1], Shigehiro Karashima[2], Issey Osaka[1]

3P-AM-28 LC-MS/MS-based approach for glycosylation of recombinant adeno-associated virus ([1]Osaka Univ., [2]GlycoTechnica, [3]Precision System Science, [4]AIST, [5]U-Medico, [6]Nagoya Univ., [7]Jichi Med. Univ. Sch. of Med., [8]Jichi Med. Univ.) °Yuki Yamaguchi[1], Kentaro Ishii[1], Sachiko Koizumi[2,3], Hiroaki Sakaue[4], Takahiro Maruno[1,5], Mitsuko Fukuhara[1,5], Risa Shibuya[1], Yasuo Tsunaka[1], Aoba Matsushita[1], Karin Bandoh[1], Tetsuo Torisu[1], Chie Murata-Kishimoto[2], Azusa Tomioka[4], Saho Mizukado[4], Hiroyuki Kaji[6], Yuji Kashiwakura[7,8], Tsukasa Ohmori[7,8], Atsushi Kuno[4], Susumu Uchiyama[1]

3P-AM-29 ☆Colorectal Cancer Diagnosis by Urine Metabolic Profiling, Using Graphite Sheet-Assisted Laser Desorption/Ionization Mass Spectrometry (GS-assisted LDI-MS) ([1]Kyushu Univ., [2]Fukuoka Dental College, [3]Shinshu Univ., [4]Panasonic) °Agnes Sekarjati[1], Hinata Imamura[1], Masataka Oeki[1], Hideto Sonoda[1,2], Yusuke Tahara[3], Tomotsugu Rikitake[1], Ryou Kuwabara[4], Shinji Ishitani[4], Ryosuke Kaneko[1], Toshiro Matsui[1], Mitsuru Tanaka[1]

3P-AM-30 ☆Measurements of Depth Dependent Mass Fractionation of Solar Wind Noble Gases by LIMAS ([1]Hokkaido Univ., [2]Science Tokyo, [3]ETH) °Yuta Otsuki[1], Ken-ichi Bajo[1], Tomoya Obase[1,2], Rainer Wieler[3], Hisayoshi Yurimoto[1]

3P-AM-31 Shin (Neo)-MassBank Project : Enriching MassBank records using human metabolome datasets with FDR-controlled metabolite annotation ([1]Osaka Univ., [2]Keio Univ., [3]Kyushu Univ., [4]Tokyo Univ. Agr. Tech., [5]Niigata Univ.) °Fumio Matsuda[1], Ryosuke Hayasaka[2], Taihei Torigoe[3], Yushi Takahashi[5], Takaki Oka[4], Yuki Matsuzawa[4], Kozo Nishida[4], Masatomo Takahashi[3], Akiyasu Yoshizawa[5], Takato Kiuchi[5], Hiroshi Tsugawa[4], Akiyoshi Hirayama[2], Yoshihiro Izumi[3], Shujiro Okuda[5]

3P-AM-32 ☆^{13}C-Metabolic Flux Analysis of *Saccharomyces cerevisiae* during early and late growth phases ([1]Osaka Univ., [2]OTRI, [3]Osaka Univ. Shimadzu Lab.) °Haruki Inoue[1], Ryo Ishikawa[1], Nobuyuki Okahashi[1,2,3], Fumio Matsuda[1,2,3]

3P-AM-33 ☆Integrative Analysis of Lipids in Plasma and Multiple Organs of MASH Mice Using LC/MS ([1]Hokkaido Univ. Health sciences, [2]Hokkaido Univ. GFR, [3]Univ. Sapporo Health Sciences) °Nao Inoue[1], Hsin-Jung Ho[1], Siddabasave Gowda Bomme Gowda[1,2], Miki Eguchi[1], Minato Takeuchi[1], Hitoshi Chiba[3], Shu–ping Hui[1]

Day 3, June 24 (Tue.)

3P-AM-34 ☆Interpretation of ambient mass spectra of α-pinene (Yokohama City Univ.) °Ren Ishihara, Kanako Sekimoto

3P-AM-35 ☆Search for Growth Factors Secreted from Mesenchymal Stem Cells (Yokohama City Univ.) °Yuzuka Kuba, Tohru Sugawara, Nana Kawasaki

3P-AM-36 ☆Evaluation of Analytical Software Suitable for Metaproteome Analysis (Kitasato Univ.) °Ryota Fukumoto, Yoshio Kodera, Shin Kawano

3P-AM-37 ☆Search for Differentiation markers of human iPSCs by EV using data-independent acquisition LC/MS/MS (Yokohama Univ.) °Mei Mikami, Shunsuke Hoshina, Eri Katsuno, Kansei Takashita, Daisuke Takakura, Nana Kawasaki

3P-AM-38 ☆Unveiling the Overall Triglyceride Composition in Skin through Optimized Monophasic Sebutape Extraction and Pseudo-Targeted Lipidomics Strategy (Univ. Taiwan) °Ya-Chu Kuo, Ching-Hua Lee, Ching-Hua Kuo

3P-AM-39 ☆Fundamental study of LC/MS/MS analytical conditions for tryptophan-derived metabolites in Niemann-Pick Disease Type C model cells ([1]Tohoku Univ., [2]Tohoku Univ. Hosp.) °Masahiro Watanabe[1], Masamitsu Maekawa[1,2], Nariyasu Mano[1,2]

3P-AM-40 End Group Analysis of Polycarbonates Using EGA-FI-TOFMS and Principal Component Analysis (PCA) ([1]AIST, [2]Nagoya Univ.) °Sayaka Nakamura[1], Hiroaki Sato[1], Takato Ishida[2], Hideaki Hagihara[1], Hideyuki Shinzawa[1], Ryota Watanabe[1]

3P-AM-41 Analysis of local distribution and residence time of Nintedanib in fibrotic lung tissue using mass spectrometry imaging ([1]Shimadzu Corp., [2]Tokushima Univ.) °Takushi Yamamoto[1], Seidai Sato[2], Yasuhiko Nishioka[2]

3P-AM-42 Aroma profiling of various mango fruits using HS-SPME-GCMS ([1]BOST, Grad. Sch, Kindai Univ., [2]Experimental Farm, Kindai Univ.) °Risa Komemoto[1], Tetsuya Matsukawa[1,2], Kosuke Shimizu[2], Shin'ichiro Kajiyama[1]

3P-AM-43 (2A-01-1225) ☆An Ambient Microwave Plasma Torch Desorption/Ionization Mass Spectrometry (MPT-MS) Strategy for Microplastic Detection (Zhejiang Univ.) °Qing Li, Weiwei Chen, Fengjian Chu, Jing Luo, Hongru Feng, Yuanjiang Pan

3P-AM-44 ☆Distinguishment of Terpenoids by Ambient Ionization CID Spectra (Yokohama City Univ.) °Renta Wakabayashi, Kanako Sekimoto

3P-AM-45 Development of a Combined Thermal and Laser Desorption Mass Spectrometry Approach for On-site Drug Detection (NSYSU) °Chun Wu, Min Huang, Chi Lee, Jentaie Shiea

3P-AM-46 ☆Identification and Quantification of Tire Additives in Urban and Road dust Using LC-MS ([1]KNU, [2]MSCRI) °Seungjun Oh[1], Sunghwan Kim[1,2]

3P-AM-47 ☆Helium Isotopes in Olivine and Pyroxene Crystals in Volcanic Rocks Revealing the Magma Plumbing System of the Kirishima Volcano Group ([1]School of Science, UTokyo, [2]RCAST, UTokyo, [3]ERI, UTokyo, [4]Kumamoto Univ., [5]Nippon Koei) °Rai Yoneda[1], Hirochika Sumino[2], Masataka Kawaguchi[3], Toshiaki Hasenaka[4], Yasuhisa Tajima[5], Nanae Fukushima[2]

3P-AM-48 ☆Automatic Sample Additive Scans for Electrospray Ionization Mass Spectrometry (NTHU CHEM) °I-Ting Wu, Decibel Elpa, Pawel Urban

3P-AM-49 (2B-01-1155) ☆Phosphatase reactivity-based profiling of the local environment of phosphorylation sites on proteins ([1]Kyoto Univ., [2]NIBIOHN) °Yuna Hiranuma[1], Kosuke Ogata[1], Yasushi Ishihama[1,2]

3P-AM-50 ☆Molecular Mapping of the Formose Reaction via High-Resolution Mass Spectrometry ([1]Univ. Osaka, [2]Univ. Tokyo) °Hiroaki Nishijima[1], Hiro Tabata[1,2], Rika Miyake[1], Shuji Nakanishi[1]

3P-AM-51 (2B-01-1210) ☆First Look at the Integrated Phospholipid Metabolism in an Insect Endosymbiosis ([1]NIBB, [2]Keio University, [3]RIKEN IMS) °Dolma Michellod[1], Kathrine Tan[1], Makoto Arita[2,3], Shuji Shigenobu[1]

3P-AM-52 (2A-03-1640) ☆Exploring the Chemical Communication of Australian Native Flower *Corymbia ficifolia* Using Mass Spectrometry Imaging ([1]ESC, GU, [2]CMM, UQ, [3]QBI, UQ) °Rachel Jackson[1], Brett Hamilton[2], Robert Sullivan[3], Darren Holland[1], Joshua Hayton[1], Anthony Carroll[1]

Day 3, June 24 (Tue.)

[3P-PM] Poster Session 3P-PM
Poster Display : 8 : 15 ～19 : 00
Core time (Odd numbers) : 17 : 00 ～18 : 00
Core time (Even numbers) : 18 : 00 ～19 : 00
#For banquet participants, the poster removal time is preferably at 21 : 00.

3P-PM-01 ☆Spontaneous Reduction of Transition Metal Ions by One Electron in Water Microdroplets and the Atmospheric Implications (Nankai Univ.) °Xu Yuan, Xinxing Zhang

3P-PM-02 ☆Proteomic and Metabolomic Profiling of Taiwanese Quinoa for Functional Components (National Chung Hsing Univ.) °Yi-Feng Zheng, Chien-Chen Lai

3P-PM-03 Development of a GC-MS Method for Detecting 23 Commonly Abused Drugs in Taiwan (TVGH) °Hsiaochia Liao, Yanchiao Mao

3P-PM-04 Anti-inflammatory and Metabolic Regulatory Effects of Ocular-Accumulative Phenolic Compounds in An *In Vitro* Model of Dry Eye Disease ([1]CEVR, [2]PolyU FSN, [3]PolyU RiFood, [4]PolyU RCMI, [5]Univ. Waterloo) °Ke Wang[1,2,3], Weipeng Li[2,3], Pui-Kei Lee[2,4], Wenjie Wu[1,4], Ka-Ying Wong[1,5], Man-Sau Wong[1,2,3,4], Danyue Zhao[1,2,3,4]

3P-PM-05 Integrating Untargeted and Targeted Metabolomics with Machine Learning for Early Colorectal Cancer Biomarker Discovery ([1]NTOU, [2]NCKU) °Pang-Hung Hsu[1], Chung-Fa Chang[2], Chung-Hsien Lin[2], Juan-Kai Wong[2]

3P-PM-06 Localized Transporter Inhibition and MSI : Advancing CNS Drug Penetration Studies (Eisai Co., Ltd.) °Yoko Nagaya, Tomomi Ishida, Yoshitane Nozaki

3P-PM-07 Spontaneous Reduction of Iodopentafluorobenzene and Ortho-diiodotetrafluorobenzene on Water Microdroplets (Nankai Univ.) °Huan Chen, Xinxing Zhang

3P-PM-08 ☆Surveillance of Emerging Organic Pollutants in Thailand by Suspect Screening Using High-Resolution Mass Spectrometry ([1]KKU, [2]UTokyo) °Ittikorn Palee[1], Phanwatt Phungsai[1], Futoshi Kurisu[2]

3P-PM-09 ☆Supervised Deep learning approach to automatically classify peaks of MALDI-TOF Datasets (GRC) °Ali Farhan, Yi-Sheng Wang

3P-PM-10 Routine EPA 1633 PFAS analysis with a novel slotted bandpass ion guide to improve signal response robustness ([1]Nihon Waters, [2]Waters) °Maki Terasaki[1], Sherry Zhang[1], Kari Organtini[2], David Gould[2], Peter Hancock[2]

3P-PM-11 ☆The relationship between a trail pheromone and division of labor in *Lasius japonicus* (Hiroshima Univ.) °Mai Takatsu, Shunsuke Izumi

3P-PM-12 Decoding O-Antigen Substructures in Pathogenic *E. coli* O111 : Insights from MALDI Glycotyping of Cell Culture and Commercial LPS (Hokkaido Univ.) °June Chelyn Lee, Shogo Urakami, Hinou Hiroshi

3P-PM-13 Ambient Pressure Laser Desorption Ionization/Post-photoionization Mass Spectrometry Imaging to Study the Permeation Process of Flavors and Fragrances in Tobacco Leaves (NSRL, USTC) °Chunchun Lv, Chengyuan Liu, Yang Pan

3P-PM-14 ☆Capture the fleeting intermediates during thermal/photo catalytic reactions by photoionization mass spectrometry (USTC) °Chengyuan Liu, Yang Pan

3P-PM-15 ☆Comparative proteomics analysis of female fibromyalgia and osteoarthritis using data-independent acquisition SWATH-based MS ([1]IMB/NCHU, [2]AIR/TCVGH, [3]MBHG/TCU) °Cheng-Yu Kuo[1], Kuo-Tung Tang[2], Wei-Chen Wang[1], Yi-Feng Zheng[1], Yi-Ling Wu[1], Chih-Jui Chang[3], Chien-Chen Lai[1]

3P-PM-16 (2C-02-1510) ☆Advancing Bottom-up Proteomics with Protease Type XIII from *Aspergillus saitoi* ([1]Kyoto Univ., [2]SHIONOGI, [3]NIBN) °Ryota Tomioka[1,2], Ayana Tomioka[1], Kosuke Ogata[1], Yasushi Ishihama[1,3]

3P-PM-17 ☆Determination of parabens in condiments using SPE isotope-dilution-UHPLC-MS/MS and dietary risk ([1]IFSHRA, NYCU, [2]IEOHS, NYCU) °Yi-Lun Chung[1], Yu-Fang Huang[2]

3P-PM-18 High Resolution DESI imaging Single Cell Analysis ([1]Nihon Waters, [2]Waters, [3]University of Surrey) °Motoji Oshikata[1], Thanai Paxton[1], Mark Towers[2], Gary Harland[2], Scarlet Ferrinho[2], Lisa Towers[2], Lee Gethings[2], Preeti Mourya[3], Shazneil Briones[3], Olivier Cexus[3], Paul Townsend[3], Joanne Ballantyne[2]

3P-PM-19 ☆Fundamental study for simultaneous analysis of capecitabine and its metabolites using liquid chromatography/tandem mass spectrometry ([1]Grad. Sch. Pharm. Sci., Tohoku Univ., [2]Dept. Pharm. Sci., Tohoku Univ. Hosp.) °Minami Yamauchi[1], Masamitsu Maekawa[1,2], Nariyasu Mano[1,2]

Day 3, June 24 (Tue.)

3P-PM-20 Non-Targeted Analysis of Air Pollutants Using Thermal Desorption GC-HRTOFMS with Machine Learning Structural Analysis ([1]JEOL Ltd., [2]TOYO UNIVERSITY) °Masahiro Hashimoto[1], Chihiro Ueno[2], Ryotaro Suzuki[2], Katsuhito Yoshida[2], Atsuyuki Sorimachi[2], Masaaki Ubukata[1]

3P-PM-21 ☆Compositional Analysis of Protein Corona on Diamond Nanoparticles Using Mass Spectrometry ([1]Physics / NDHU, [2]Biochem / NDHU, [3]IAMS, [4]TCU) °Mhikee Descanzo[1], Yu-Chung Chen[1], Ming-Chi Chung[2], Nguyen Nghiem Bich Ngoc[2], Po-Chi Soo[4], Ruey-Yi Chang[2], Chia-Liang Cheng[1], Huan-Chen Chang[3], Wen-Ping Peng[1]

3P-PM-22 ☆Developing a Feedback System based on Image Processing for stability control of a high-pressure electrospray Ionization ([1]Univ. Yamanashi, [2]Hangzhou Dianzi Univ.) °Xiangting Chen[1,2], Qiangqiang Xie[2], Satoshi Ninomiya[1], Lee Chuin Chen[1]

3P-PM-23 ☆HCP Risk Assessment Using MS during Purification Process Changes in Biopharmaceutical Production (Kyowa Kirin) °Kazutomo Takaishi, Mamoru Yoneda, Akari Hiyama, Yukihito Ohyama, Daisuke Tsuchida

3P-PM-24 ☆Development of a Simplified Estrogen Analysis Method : Liquid-Liquid Extraction and Derivatization Strategy Comparison ([1]Kangwon Nat'l Univ., [2]Konkuk Univ.) °Min-Ho Song[1], Ji-Woo Yu[1,2], Jung-Hoon Lee[1], Eun-Song Choi[1], Ji-Ho Lee[1]

3P-PM-25 ☆Benzophenone-type UV filters in the hair of Taiwanese Young Adults by SLE and SPE-based UHPLC–MS/MS (NYCU) °Jiong-Heng Du, Yu-Fang Huang

3P-PM-26 ☆Analysis of cataract pathophysiology by mass spectrometry imaging (Dokkyo Medical Univ) °Haruka Matsumoto, Tadayuki Ogawa, Hiroyuki Matsushima, Mayumi Nagata

3P-PM-27 ☆Integrating DynamiCROP Model and Risk Assessment for Pesticide Residues in Spinach : Implications for Food Safety ([1]Konkuk Univ., [2]Kangwon Nat'l Univ., [3]NAS) °Ji-Woo Yu[1], Min-Ho Song[2], Jung-Hoon Lee[2], Hui-Yeon Ahn[1], Eun-Song Choi[2], Young-Soo Keum[1], Hyun Ho Noh[3], Ji-Ho Lee[2]

3P-PM-28 (4B-01-1155) ☆Prioritizing Candidate Structures in Non-Targeted LC/ESI/HRMS Analysis by Combining Machine Learning Predictions ([1]Stockholm Univ. Kemikum, [2]Stockholm Univ. ACES) °Wei-Chieh Wang[1], Lucas Ferrando Plo[1], Chimnaz Emrah[1], Amina Souihi[1], Pilleriin Peets[1], Anneli Kruve[1,2]

3P-PM-29 Direct Detection of Vitamin D Analogue by Surface-Assisted Laser Desorption/Ionization Mass Spectrometry ([1]Toyama. Pref. Univ., [2]Kanazawa Univ., [3]Hamamatsu Photonics) °Chouma Kurihashi[1], Shigehiro Karashima[2], Takamasa Ikeda[3], Issey Osaka[1]

3P-PM-30 ☆Development of a Nano-ESI-MS/MS Method with the In-Capillary Derivatization for the Single-Cell Amino Acid Metabolomics ([1]Univ. Shizuoka, [2]Meijo Univ., [3]Ajinomoto) °Aogu Furusho[1], Daiki Hosojima[1], Yukino Yamaguchi[1], Hajime Mizuno[1,2], Sachise Karakawa[3], Kotoe Nakasha[3], Akihiro Arakawa[3], Akiho Murai[3], Eiji Sugiyama[1,2], Kenji Kojima[1], Kenichiro Todoroki[1]

3P-PM-31 Understanding Enzyme-Inhibitor Interactions via Native Mass Spectrometry ([1]Zhejiang Univ., [2]HUST) °Mowei Zhou[1], Shiwen Zhou[1], Beiyao Fu[1], Xinjie Yang[2], Pengfei Ji[1], Fangrui Zhong[2], Yuanjiang Pan[1]

3P-PM-32 ☆Fragmentation analysis of gas-phase oxidation products from several monoterpenes using high-resolution collision-induced dissociation mass spectrometry (HR-CID-MS) (Yokohama City Univ.) °Daisuke Fukuyama, Kanako Sekimoto

3P-PM-33 ☆Structural Characterization of Human Mitochondrial Single-Stranded DNA-Binding Protein and Helicase Twinkle Using Native Mass Spectrometry ([1]NCKU CHEM, [2]NCKU BIMB, [3]NCKU BMS) °Ting-Yi Chiang[1], Po-Jung Cien[2], Chyuan-Chuan Wu[3], Szu-Hsueh Lai[1]

3P-PM-34 ☆Integrated Network Analysis and Enrichment Analysis of Proteome Data Obtained under Different Experimental Conditions ([1]Kitasato Univ., [2]Kumamoto Univ.) °Manaka Nishizaki[1], Norie Araki[2], Shin Kawano[1]

3P-PM-35 Proteomics and Lipidomics Approach to Comprehensive Understanding of Malignant Mesothelioma ([1]Nagoya Univ. / ITbM, [2]Aichi Cancer Center, [3]TUAT) °Keiko Kano[1], Shinya Sato[1], Tasuhiro Sato[2], Takaki Oka[3], Yuki Matsuzawa[3], Hiroshi Tsugawa[3], Emi Mishiro-Sato[1]

Day 3, June 24 (Tue.)

3P-PM-36 ☆Investigation of the Antimicrobial Activity of *Lactobacillus sp.* SC-2001 Strain Isolated from *Quercus serrata* (Sumitomo Chemical) °Yumi Komori, Naoya Ozawa, Hiroshi Kuwahara, Mikio Aoki

3P-PM-37 ☆Evaluation of Accuracy and Precision on the Multi-Turn Time-of-Flight Secondary Neutral Mass Spectrometry (MULTUM-SNMS) and Its Application to Extraterrestrial Materials (Univ. of Osaka) °Shigeru Ujita, Hiromu Shinozaki, Kohei Fukuda, Toshinobu Hondo, Yosuke Kawai, So Jinnouchi, Michisato Toyoda, Kentaro Terada

3P-PM-38 The next frontier in extractable screening analyses : Increased identification confidence provided by a benchtop multi-reflecting time-of-flight mass spectrometer (Waters Corp) °Jayne Kirk, Rachel Sanig, Lee Gethings

3P-PM-39 A steroid pathway-based DNN model for Biological Age prediction via LC-MS/MS steroid profiling (IPR, Osaka Univ.) °Zi Wang, Qiuyi Wang, Kenji Mizuguchi, Toshifumi Takao

3P-PM-40 ☆Establishment of LC-MS/MS Analysis Approach of Folic Acid and Its Metabolites in Clinical Samples of Autistic Children (NTU Univ.) °Shuangshuang Zhu, Li Ching Pang, Wen Zheng Lo, Xueming Dong

3P-PM-41 (2C-02-1440) ☆Proteome-Wide Degron Screening ([1]UNSW, [2]UTS) °Jake Violi[1], Suhyeon Kwon[1], Priyanka Kundu[1], Connor Phillips[2], William Donald[1]

3P-PM-42 A Study on the Use of Nitrogen as an Alternative Gas to Helium in Gas Chromatography/Mass Spectrometry (GC/MS) for Forensic Toxicology ([1]Okinawa Prefectural Police, [2]Univ. Ryukyus, [3]Yokohama City Univ.) °Kazumichi Kakazu[1,2], Kenji Ninomiya[2], Chiaki Fuke[3], Natsuki Ikematsu[2], Maki Fukasawa[2], Mio Takayama[2], Akihisa Agena[1]

3P-PM-43 ☆Development of a Quantitative Analysis Method for Blood Metabolites Using a Multi-HPLC Analysis System for Accurate Health Monitoring ([1]MIB,Kyushu Univ., [2]Shimadzu) °Kotaro Harada[1], Masatomo Takahashi[1], Shoji Shinadama[2], Keisuke Nakata[1], Kazuki Ikeda[1], Maiko Goto[1], Yoshihiro Hayakawa[2], Takeshi Bamba[1], Yoshihiro Izumi[1]

3P-PM-44 Development of on-site analysis equipment using multi-turn time-of-flight MS ([1]Univ. Tokyo, [2]Univ. Tokyo RCAST) °Shogo Numata[1], Hirochika Sumino[2]

3P-PM-45 Visualization of Tamoxifen Distribution and Sensitivity Assessment in Breast Cancer Tissues Using Imaging Mass Spectrometry ([1]Kyoto Pref. Univ. Med., [2]Shimadzu Corp.) °Chikage Kato[1], Takushi Yamamoto[1], Yasuto Naoi[2]

3P-PM-46 Smart On-Line Coffee Roasting Process Control by a Novel Rugged Photoionization Mass Spectrometer : Real-Time Prediction Models for Coffee-Roasting Degree, Brew Antioxidant Capacity and Sensory Attributes ([1]Univ. Rostock/HMGU, [2]Photonion GmbH, [3]Probat GmbH) Henryk Czech[1], Jan Heide[2], Sven Ehlert[2], Thomas Koziorowski[3], °Ralf Zimmermann[1]

3P-PM-47 Gas-Phase-Fractionation Spectral Library-Enhanced DIA Mass Spectrometry for Rapid and Deep Plasma Proteomics ([1]CLSMB, NTU, [2]IoC, AS, [3]MST-TiGP, AS, [4]Thermo Fisher San Jose, [5]Surgery, NTUH, [6]Thermo Fisher Bremen, [7]Internal Med., CSMUH, [8]Surgery, NTUH and NTU, [9]Internal Med., NTUH) Sung-Liang Yu[1], Yi-Ju Chen[2], °Kun-Hao Chang[2,3], Jared Deyarmin[4], Yi-Shuang Chuang[2], Yi-Jing Hsiao[2], Chong-Jen Yu[5], Tabiwang Arrey[6], Jana Richter[6], Stephanie Samra[4], Daniel Hermanson[4], Gee-Chen Chang[7], Jin-Shing Chen[8], Pan-Chyr Yang[9], Yu-Ju Chen[2]

3P-PM-48 (4B-01-1210) ☆Two-step peptide solubilization increases coverage in high-sensitivity nanoHILIC/MS/MS-based proteomics ([1]Kyoto Univ., [2]NIBIOHN) °Koshin Akamatsu[1], Eisuke Kanao[1,2], Ayana Tomioka[1], Yasushi Ishihama[1,2]

3P-PM-49 ☆Exploring Chemical Interactions of the Soft Coral *Carijoa (Telesto) riisei* on Artificial Reefs in Southeast Queensland, Australia, using Mass Spectrometry. ([1]ESc/Griff. Univ., [2]GRIDD/Griff.Univ.) °Pauline Lindholm[1], Darren Holland[1,2], Joshua Hayton[1], Tim Stevens[1], Anthony Carroll[1,2]

3P-PM-50 (4C-01-1225) ☆Large-Scale Libraries of Highly Specific Kinase Substrate Peptides for LC/MS-Based Kinome Profiling ([1]Kyoto Univ, [2]NCVC, [3]NIBIOHN) °Junqi Liang[1], Saki Toi[1], Junna Nakazono[1], Dai Sakamoto[1], Naoyuki Sugiyama[1,2], Yasushi Ishihama[1,3]

3P-PM-51 (4A-01-1225) ☆Acceleration of Iodide Oxidation by Ozone in Atmospheric Clusters ([1]Queensland Univ. Tech., [2]Univ. Melbourne, [3]Univ. Wollongong) °Samuel Brydon[1], Evan Bieske[2], Adam Trevitt[3], Stephen Blanksby[1]

Day 3, June 24 (Tue.)

〈Corporate Posters〉

[3P-CP] Corporate Posters 3P-CP

Poster Display and Presentation : 8 : 15 ～19 : 00

3P-CP-01 GOING BEYOND SIMPLE DDMS2 : IMPROVING ANNOTATION CONFIDENCE IN UNTARGETED METABOLOMICS USING HIGH-RESOLUTION MS AND PARALLEL ION TRAP EXPERIMENTS ([1]Thermo Fisher Scientific, [2]Thermo Fisher Scientific, San Jose, [3]Thermo Fisher Scientific Singapore) Scott Peterman[1], Brandon Bills[2], °Nicole Zhang[3]

3P-CP-02 COMBINING TARGETED MS2 AND MS3 APPROACHES FOR THE QUANTITATION OF BILE ACIDS IN BIOLOGICAL SPECIMENS USING THE STELLAR MASS SPECTROMETER ([1]Thermo Fisher Scientific, [2]Thermo Fisher Scientific San Jose, [3]Thermo Fisher Scientific Singapore) Scott Peterman[1], Charles Maxey[2], °Nicole Zhang[3]

3P-CP-03 SIMPLIFIED PFAS IN WASTEWATER ANALYSIS THROUGH AUTOMATION, RETENTION TIME CONFIRMATION, AND HIGH RESOLUTION FULL SCAN DATA ([1]Thermo Fisher Scientific San Jose, [2]Thermo Fisher Scientific Singapore) Cynthia Grim[1], °Nicole Zhang[2]

Day 4, June 25 (Wed.)

Room A (Maesato West)

〈Plenary Lecture〉

[4-PL] Plenary Lecture Ⅳ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:30 ～ 9:15) Chair: Takeshi Bamba (Kyushu University)

4-PL-0830 Development of CE-MS Metabolomics and Its Application in Cancer (Keio Univ.) °Tomoyoshi Soga

〈Oral Sessions〉

[4A-01] Fundamentals & Emerging Applications of Ionization and Gas Phase Ion Processes - Part Ⅱ

(11:25 ～ 12:40) Chair: Kanako Sekimoto (Yokohama City University) / Lee Chuin Chen (Univerisity of Yamanashi)

4A-01-1125 [Invited]Oxygen Attachment Dissociation-Enhanced MALDI Imaging for Spatially Resolved Isomer Identification (Shimadzu) °Hidenori Takahashi, Satoshi Kasamatsu, Kaoru Nakagawa, Naoto Mishina, Kenta Takigawa, Manami Kobayashi, Kengo Takeshita, Noriyuki Ojima

4A-01-1140 [Invited]Applications of Ion Mobility Mass Spectrometry in Metallosupramolecular Chemistry (QUT) °David Marshall, Michael Pfrunder, Jason Hong, Therese Fulloon, John Mcmurtrie, Stephen Blanksby, Kathleen Mullen

4A-01-1155 [Invited]Study Organic Reactive Intermediate via Mass Spectrometry: Bridge the Gap between the Solution and the Gas-phase (ZJU) °Yuanjiang Pan, Hongjian Chu

4A-01-1210 [Invited]Understanding the Binding and Structures of Model Complexes of Polypeptides and Cofactors: Insights into structural enzymology of radical proteins ([1]U of Hong Kong, [2]Shandong Public Health Clinical Center) °Ivan Chu[1,2]

4A-01-1225 (3P-PM-51) ☆Acceleration of Iodide Oxidation by Ozone in Atmospheric Clusters ([1]Queensland Univ. Tech., [2]Univ. Melbourne, [3]Univ. Wollongong) °Samuel Brydon[1], Evan Bieske[2], Adam Trevitt[3], Stephen Blanksby[1]

〈Luncheon Seminar〉

[4A-L] Luncheon Seminar (Presented by Yokogawa Electric Corporation)

(12:45 ～ 13:45)

4A-L-1245 Unlocking Cellular Secrets: Cutting-Edge Single-Cell and Organelle Analysis for Drug Discovery ([1]Yokogawa, [2]Meijo Univ., [3]KCL) Yuta Terui[1], °Hajime Mizuno[2], Melanie Bailey[3], Masafumi Iharada[1]

〈Oral Sessions〉

[4A-02] Instrument Developments for the Future of Mass Spectrometry

(13:55 ～ 15:10) Chair: Yoichi Otsuka (The University of Osaka) / Yi-Sheng Wang (Academia Sinica)

4A-02-1355 [Keynote]Instrumentation Strategies for Imaging and Single-Cell Structural Lipidomics (Tsinghua Univ.) °Zheng Ouyang, Zhijun Cai, Yao Qian, Dan Li, Xiaoxiao Ma

4A-02-1425 Development of Medium Vacuum Chemical Ionization (MVCI) for Mass Spectrometry: Micro-Tissue Analysis via Online Coupling of Supercritical Fluid Extraction/Chromatography ([1]Univ. Osaka/MS-Cheminfo., [2]Univ. Osaka) °Toshinobu Hondo[1], Yumi Miyake[2], Michisato Toyoda[2]

4A-02-1440 Extending capabilities of Orbitrap-based MS to cold ion spectroscopy for analytical applications (EPFL) °Oleg Boyarkine, Vyacheslav Kozlovskii, Andrei Zviagin, Vladimir Kopysov

4A-02-1455 (2P-PM-45) ☆Real-time environmental monitoring method of clean rooms for extraterrestrial samples with GED-ICP-MS/MS ([1]JAXA, [2]Marin Work Japan) °Ryota Fukai[1], Arisa Nakano[1], Masahiro Nishimura[1], Yuya Hitomi[2]

Day 4, June 25 (Wed.)

Room B (Maesato Center)

〈Plenary Lecture〉

[4-PL] Plenary Lecture Ⅳ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:30 ～ 9:15) Chair: Takeshi Bamba (Kyushu University)

4-PL-0830 Development of CE-MS Metabolomics and Its Application in Cancer (Keio Univ.) °Tomoyoshi Soga

〈Oral Sessions〉

[4B-01] Young Researcher Session 2

(11:25 ～ 12:40) Chair: Yuki Yamaguchi (The University of Osaka) / Pai-Shan Chen (National Taiwan University)

4B-01-1125 [Invited]Metabolomics Approaches for Organic Acidemias: Optimization of Derivatization Methods for Enhanced Biomarker Quantification and Accurate Diagnosis ([1]NTU, [2]Dept Pediatr NTUH, [3]Dept Pediatr NTU, [4]NTNU) Yung-Cheng Jair[1], Ni-Chung Lee[2,3], Yi-Hsin Liu[4], °Pai-Shan Chen[1]

4B-01-1140 (2P-PM-33) ☆Investigation of ligand transfer mechanism during collisional activation of protein complexes in native mass spectrometry (Zhejiang Univ.) °Shiwen Zhou, Mowei Zhou, Hongru Feng, Yuanjiang Pan

4B-01-1155 (3P-PM-28) ☆Prioritizing Candidate Structures in Non-Targeted LC/ESI/HRMS Analysis by Combining Machine Learning Predictions ([1]Stockholm Univ. Kemikum, [2]Stockholm Univ. ACES) °Wei-Chieh Wang[1], Lucas Ferrando Plo[1], Chimnaz Emrah[1], Amina Souihi[1], Pilleriin Peets[1], Anneli Kruve[1,2]

4B-01-1210 (3P-PM-48) ☆Two-step peptide solubilization increases coverage in high-sensitivity nanoHILIC/MS/MS-based proteomics ([1]Kyoto Univ., [2]NIBIOHN) °Koshin Akamatsu[1], Eisuke Kanao[1,2], Ayana Tomioka[1], Yasushi Ishihama[1,2]

4B-01-1225 Metal Ion-Enhanced ZIC-cHILIC StageTip for Simultaneous, Large-Scale Glycoproteomic and Phosphoproteomic Tissue Profiling in Breast Cancer ([1]NTU/ Academia Sinica, [2]Academia Sinica) °Hsiang-Chun Cheng[1], Juanilita Waniwan[2], Yu-Ju Chen[2]

〈Luncheon Seminar〉

[4B-L] Luncheon Seminar (Presented by Agilent Technologies Japan, Ltd.)

(12:45 ～ 13:45)

4B-L-1245 Cutting-edge Approaches in Life Science Utilizing Agilent Mass Spectrometry (Agilent Techonologies Japan, Ltd) °Aya Anegawa, Kyoko Yasuda, Takeshi Serino

〈Oral Sessions〉

[4B-02] Mass Spectrometry in Agriculture and Food Science

(13:55 ～ 15:10) Chair: Akira Oikawa (Kyoto University)

4B-02-1355 [Invited]Mass Spectrometry-Based Metabolomics for Flavor and Bioactive Compound Discovery in Crops: Towards Product Development (Chulalongkorn Univ.) °Supaart Sirikantaramas

4B-02-1410 [Invited]Pesticide vs Plant medicine: Metabolomic Approach (Kangwon Nat'l Univ.) °Ji-Ho Lee

4B-02-1425 [Invited]Advanced Techniques for Flavor Analysis Utilizing Capillary Flow Technology (CFT) (Agilent Technologies Japan, Ltd.) °Aya Anegawa, Takeshi Otsuka, Sadao Nakamura

4B-02-1440 Monitoring Indoor Farming Growth Conditions Using Direct Analysis in Real Time Mass Spectrometry (DART-MS) (NUS) °Qifeng Lin, Norman Zhi Wei Teo, Xin Shan Lim, Qingsong Lin

Day 4, June 25 (Wed.)

4B-02-1455 (2P-PM-16) ☆Mass Spectrometric Analysis of Carcinogenic Areca Nut-Specific Alkaloids in Cooked *Areca catechu* L.: A Cautionary Note on Dietary Exposure ([1]NDMC, [2]CSMU) °Szu-Yi Chao[1], Chiao-Jou Yu[2], Yuan-Jhe Chang[2], Chiung-Wen Hu[2], Mu-Rong Chao[2]

Room C (Top of Yaima)

〈Plenary Lecture〉

[4-PL] Plenary Lecture Ⅳ

#This session will take place in Rooms A and B and will be available for live viewing via online streaming in Room C.

(8:30 ～ 9:15) Chair: Takeshi Bamba (Kyushu University)

4-PL-0830 Development of CE-MS Metabolomics and Its Application in Cancer (Keio Univ.) °Tomoyoshi Soga

〈Oral Sessions〉

[4C-01] Chemical Proteomics / Pharmacoproteomics

(11:25 ～ 12:40) Chair: Wei Wu (National University of Singapore) / Jun Adachi (National Institutes of Biomedical Innovation, Health and Nutrition)

4C-01-1125 [Keynote]Clinical Functional Proteomics Applied to Pancreatic Cancer (SUSTech) °Ruijun Tian

4C-01-1140 [Invited]Mass spectrometry-based assay to screen for PTP dysregulation and activation: a case study in metabolic disease management and reversal. ([1]A*STAR-SIgN, [2]NUS) Elisavet Kalaitsidou[1,2], Ziliang Ma[1], °Wei Wu[1,2]

4C-01-1155 Phosphoproteomic subtyping of gastric cancer reveals dynamic transformation with chemotherapy and guides targeted cancer therapy ([1]NIBN, [2]Kyoto Univ., [3]NCCH, [4]Osaka Univ., [5]NMS) °Jun Adachi[1,2], Hirokazu Shoji[3], Hidekazu Hirano[3], Yosui Nojima[1,4], Daigo Gunji[1,2], Akina Shinkura[1,2], Satoshi Muraoka[1], Yuichi Abe[1], Ryohei Narumi[1], Chikako Nagao[4], Masahiko Aoki[3], Kazutaka Obama[2], Kazufumi Honda[5], Kenji Mizuguchi[1,4], Takeshi Tomonaga[1], Takaki Yoshikawa[3], Ken Kato[3], Narikazu Boku[3]

4C-01-1210 Chemical Proteomics and Cross-linking Mass Spectrometry for Identification of Protein-protein Interactions of drug-protein interactome (IMCB, A*STAR) °Zheng Ser, Alicia Ong, Radoslaw Sobota

4C-01-1225 (3P-PM-50) ☆Large-Scale Libraries of Highly Specific Kinase Substrate Peptides for LC/MS-Based Kinome Profiling ([1]Kyoto Univ, [2]NCVC, [3]NIBIOHN) °Junqi Liang[1], Saki Toi[1], Junna Nakazono[1], Dai Sakamoto[1], Naoyuki Sugiyama[1,2], Yasushi Ishihama[1,3]

〈Luncheon Seminar〉

[4C-L] Luncheon Seminar (Presented by AMR, Inc.)

(12:45 ～ 13:45)

4C-L-1245 Cutting-edge Tools to Accelerate Metabolomics and Proteomics Research: Gelpack GL-HilicAex and Evosep ([1]Niigata Univ., [2]Kyushu Univ./MiB, [3]Evosep Biosystems) °Kohta Nakatani[1,2], Michael Andersen[3]

〈Oral Sessions〉

[4C-02] Cutting-Edge Lipidomics Technology and Applied Research

(13:55 ～ 15:10) Chair: Takeshi Bamba (Kyushu University) / Kim Ekroos (Lipidomics Consulting Ltd)

4C-02-1355 [Keynote]Profiling of the Low-Abundance Lipidome by Selective Enrichment and Isomer-Resolved Tandem Mass Spectrometry (Tsinghua Univ.) Zidang Wang, Yichun Wang, °Yu Xia

4C-02-1410 [Invited]Remodelling of the yeast lipidome as an adaptation to temperature ([1]QUT, [2]UOW) °Stephen Blanksby[1], Rangika Perera[1], Reuben Young[2], Aurelie Benefield[1], Sonia Henriques[1], Berwyck Poad[1]

4C-02-1425 Development of LC-MS methods to enhance lipidomics analysis and clinical investigation of stroke etiology ([1]NTU, [2]NTU Metacore) °Ching-Hua Kuo[1,2], Ching-Hua Lee[1,2], Wei-Chieh Wang[1,2], Chih-Ning Cheng[1,2]

Day 4, June 25 (Wed.)

4C-02-1440 [Invited]Development of a Non-Invasive Early Detection Technique for Graves' Disease Using Thyroid Hormones in Hair ([1]Kazusa DNA Res. Inst., [2]Aderans, [3]Ito hosp., [4]Tohoku Univ.) Kouhei Igarashi[1,2], Chie Takita[1,2], Masako Matsumoto[3], Wataru Kitagawa[3], Atsuko Ota[2], Naoko Miyazaki[3], Koichi Ito[3], °Kazutaka Ikeda[1,4]

4C-02-1455 [Invited]Standardization and Harmonization by the International Lipidomics Society (LC Ltd) °Kim Ekroos

〈Poster Presentations〉

Room P (Maesato East, Foyer, Ocean Wing)
[4P-AM] Poster Session 4P-AM
Poster Display : 8 : 15 ～17 : 15
Core time (Odd numbers) : 9 : 15 ～10 : 15
Core time (Even numbers) : 10 : 15 ～11 : 15

4P-AM-01 (3C-01-1155) ☆Towards Rapid and Accurate Bacterial Serotyping Using MALDI Glycotyping (Hokkaido Univ.) °Shogo Urakami, Hiroshi Hinou

4P-AM-02 (3B-01-1140) ☆Single Tissue Multimodal Imaging for Cellular-level Spatial Metabolomics and Transcriptomics Analysis ([1]HKBU, [2]EIT Ningbo) °Thomas Ka Yam Lam[1], Bingxu Zhang[1], Jianing Wang[1], Zongwei Cai[1,2], Yiji Xia[1]

4P-AM-03 Withdrawn

4P-AM-04 Exploring the Cellular ADP-Ribosylome in *Deinococcus radiodurans* (NTU) °Chun-Hua Hsu

4P-AM-05 ☆Ultra-Fast Scanning Quadrupole Mass Spectrometry Combined with GCxGC for Comprehensive Analysis of Beverage Aroma ([1]Shimadzu Corp., [2]Osaka Univ.) °Kazuhiro Kawamura[1,2], Yu Nagao[1]

4P-AM-06 Development of a Dual Photoionization/Electron Impact Ionization Quadrupole Mass Spectrometer (NSRL,USTC) °Jun Huang, Jiuzhong Yang, Chengyuan Liu, Minggao Xu, Yang Pan

4P-AM-07 Elucidating the Potential Relationship between Metabolic Reprogramming and MicroRNA Behaviors in Activated Hepatic Stellate Cells through Multi-omic Analysis ([1]Kyushu Univ., [2]AIST) °Tomomi Ichinose[1], Seong-Uk Lee[1], Yi-Lan Huang[1], Daisuke Miura[2], Motofumi Kumazoe[1], Hirofumi Tachibana[1], Yoshinori Fujimura[1]

4P-AM-08 Optimising the Single Cell Pipeline using a Multi-Reflecting Q-Tof Platform ([1]Nihon Waters K.K., [2]University of Surrey, [3]Waters Corporation) °Thanai Paxton[1], Scarlet Ferrinho[2], Lee Gethings[3], Nyasha Munjoma[3], Paul Townsend[2], Olivier Cexus[2], David Heywood[3], Robert Plumb[3], Preeti Mourya[2], Shazneil Briones[2], Clare Mills[2], Matt Spick[2]

4P-AM-09 Simultaneous Quantification of Areca Nut- and Tobacco-Specific Nitrosamines in Human Saliva by Liquid Chromatography-Tandem Mass Spectrometry ([1]CSMU.OSH, [2]CSMU.PH) °Zi-Lin Lu[1], Yin-Ting Kao[1], Chiung-Wen Hu[2], Mu-Rong Chao[1], Yuan-Jhe Chang[1]

4P-AM-10 Analysis of Daily Urine Samples of Pregnant Rats Unveils Developmental Processes of Fetus as Well as Physiological Changes of Mother Rats (Beijing Normal Univ) °Youhe Gao

4P-AM-11 Analysis of Sulfated N-glycans as a Potential Biomarker for the Early Detection of Breast Cancer ([1]Hokkaido Univ., [2]De La Salle Univ., [3]Addis Ababa Univ) °Dereje Feleke[1], Bryan Montalban[2], Solomon Gizaw[3], Hiroshi Hinou[1]

4P-AM-12 Expanded proteomics in the case of data-driven post-translational modification analysis (RIKEN CSRSCSRS) °Naoshi Dohmae

4P-AM-13 Precision Targeting of Ferroptosis in Colorectal Cancer : Sex and KRAS Mutation-Driven Metabolic Vulnerabilities and Drug Repurposing ([1]Yale/HKBU, [2]HKBU, [3]Harvard, [4]Yale, [5]Columbia University) °Hong Yan[1], Xinyi Shen[4], Chen Chen[3], Yisha Yao[5], Jieqing Feng[2], John Quackenbush[3], Sajid Khan[4], Caroline Johnson[4]

4P-AM-14 Derivatization methods of sialylated glycans using lactone ring-opening aminolysis and lactone-driven ester-to-amide conversion for MALDI-TOF MS analysis ([1]Nagoya Univ., [2]Hokkaido Univ., [3]Shimadzu corp.) °Jun-ichi Furukawa[1,2], Takashi Nishikaze[3], Masaki Kurogochi[1], Hisatoshi Hanamatsu[1]

Day 4, June 25 (Wed.)

4P-AM-15 (3C-01-1225) ☆Molecular composition and imaging profiles of thrombi in acute coronary syndrome (Dokkyo Medical Univ.) °Mayo Wada, Tadayuki Ogawa, Setsu Nishino, Masashi Sakuma, Sigeru Toyoda

4P-AM-16 ☆Development of highly sensitive and comprehensive method for single-cell phospholipid analysis ([1]Meijo Univ., [2]Univ. Shizuoka, [3]Yokogawa, [4]ITO EN) °Takuma Yanagisawa[1,2], Eiji Sugiyama[1], Yuta Terui[3], Masafumi Iharada[3], Hironori Takai[3], Iwao Sakane[4], Susumu Imanishi[1], Kenichiro Todoroki[2], Hajime Mizuno[1]

4P-AM-17 Using Proteomics and Metabolomics Approach to Explore Potential Early Biomarkers in Acute Respiratory Distress Syndrome Model Mice ([1]Graduate Institute of Medical Sciences, College of Medicine, Taipei Medical University, Taiwan, [2]Department of Anesthesiology and Integrative Research Center for Critical Care, Wan Fang Hospital, Taipei Medical University, Taiwan, [3]Department of Biomedical Sciences and Engineering, National Central University, Taiwan, [4]Department of Biochemistry and Molecular Cell Biology, School of Medicine, College of Medicine, Taipei Medical University, Taiwan) °Po-Tsang Chen[1], Chun-Jen Huang[2], Yi-Chiung Hsu[3], I-Lin Tsai[4]

4P-AM-18 ☆Investigation of Extraction-Ionization Process of t-SPESI by Current Measurement ([1]GSS, Univ. Osaka, [2]FRC, Univ. Osaka, [3]Univ. Yamanashi) °Mengze Sun[1], Yoichi Otsuka[1,2], Lee Chuin Chen[3], Michisato Toyoda[1,2]

4P-AM-19 ☆Fundamental study of a simultaneous analytical method of pyrimidine bases and metabolites using liquid chromatography/tandem mass spectrometry ([1]Tohoku Univ., [2]Tohoku Univ. Hosp., [3]INGEM., Tohoku Univ.) °Midori Kato[1], Masamitsu Maekawa[1,2,3], Eiji Hishinuma[3], Masahiro Hiratsuka[1,2,3], Nariyasu Mano[1,2]

4P-AM-20 (3A-03-1630) ☆Investigating the distribution of azetidine-2-carboxylic acid (A2C) in plants using HILIC-MS/MS ([1]UTS, [2]HyMaS, [3]UNSW) °Connor Phillips[1,2], Jake Violi[3], David Bishop[2], Kenneth Rodgers[1]

4P-AM-21 Identification of clenbuterol metabolites in livestock by LC-Q-Orbitrap-MS (Chiba Univ.) °Yoshikazu Yamagishi, Yuki Toda, Sayaka Nagasawa, Hirotaro Iwase, Yasumitsu Ogra

4P-AM-22 ☆Quantitative Proteomics of Post-Translational Modification in Parkinson's Disease Model Cells (Yokohama City Univ.) °Shunsuke Hoshina, Eri Katsuno, Daisuke Takakura, Tohru Sugawara, Nana Kawasaki

4P-AM-23 Metal-organic framework-based dispersive solid-phase extraction coupled with UP-LC-MS/MS for analysis of mono-, di-, and triphosphoadenosine compounds ([1]NTU, [2]NTNU) °Yu-Meng Wang[1], Sung-Fang Chen[2]

4P-AM-24 ☆MALDI Glycotyping for O-Antigen Serotyping in *Escherichia albertii* ([1]Hokkaido Univ., [2]Miyazaki Pref. Inst. Public Health Environ., [3]Akita Pref. Res. Cent. Public Health Environ., [4]NIID, [5]Jumonji Univ., [6]Kagoshima Univ.) °Shogo Urakami[1], Yumi Okabe[2], Takayuki Konno[3], Shinichiro Hirai[4], Koichi Murakami[5], Tadasuke Ooka[6], Hiroshi Hinou[1]

4P-AM-25 ☆Using an online GC-EI-TOF-MS for the source apportionment of an air pollution episode in March 2023 at a suburban site in Hong Kong ([1]HKUST (CHEM), [2]HKUST (ENVR)) °Anna Mae Vorwerk[1], Wing Sze Chow[1], Jian Zhen Yu[1,2]

4P-AM-26 ☆Development of a Miniature Ultrasonic Device for Rapid Enzymatic Digestion of Protein (NCKU Chem) °Po-Yu Chou, Szu-Hsueh Lai

4P-AM-27 (3A-02-1455) ☆Multimass Analysis of Adeno-Associated Virus Vectors by Orbitrap-Based Charge Detection Mass Spectrometry ([1]Osaka Univ., [2]Shimadzu Corp., [3]Osaka Univ. Shimadzu AIRL, [4]U-Medico Inc.) °Ryoji Nakatsuka[1,2,3], Yuki Yamaguchi[1], Kiichi Hirohata[1], Saki Shimojo[1], Makoto Murakami[1], Mark Allen Rocafort[4], Yasuo Tsunaka[1], Mitsuko Fukuhara[1,4], Tetsuo Torisu[1], Susumu Uchiyama[1]

4P-AM-28 ☆Residual Characteristics of Five Insecticides and their metabolites in *Cirsium japonicum* var. *spinosissimum* ([1]Konkuk Univ., [2]Kangwon Nat'l Univ.) °Ji-Yeon Lee[1], Min-Ho Song[2], Ji-Woo Yu[1], Jung-Hoon Lee[2], Hui-Yeon Ahn[1], Geon-Woo Park[1], Ji-Won Shin[1], Ha-Jin Son[1], Eun-Song Choi[2], Ji-Ho Lee[2]

4P-AM-29 Differential Proteomic Analysis of Microplastic Impact on Mouse Liver Using SWATH-Based Mass Spectrometry (NTNU) °Pei Chen Lin, Sung-Fang Chen

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4P-AM-30 ☆Product ion species in CID spectra change depending on mass spectrometers and ionization methods (Yokohama City University) °Haruki Nagata, Yuuto Kiuchi, Yukiumi Kita, Kanako Sekimoto

4P-AM-31 ☆Fundamental Study on Ionization Conditions for MALDI Mass Spectrometry Imaging of Novel Agents for Boron Neutron Capture Therapy. (Univ. Osaka) °Rena Yamashita

4P-AM-32 (3C-02-1440) ☆MiProChip: Microfluidic Device for Multiplexed Isotopic labeling-based Streamlined Single-cell Profiling ([1]IoC, AS, [2]NTU) °Huan-Chi Chiu[1,2], Tsai-Fang Chou[1], Sofani Gebreyesus[1], Guan-Fu Chen[1], Hsiung-Lin Tu[1], Yu-Ju Chen[1,2]

4P-AM-33 Overcoming Bioanalytical Challenges in ADCs: A High-Sensitivity LC-MS Approach (Astellas Pharma Inc.) °Toshiko Yahata, Masanori Nagata, Takafumi Akabane

4P-AM-34 iprm-PASEF MALDI MS/MS Imaging Reveals Specialized Metabolites Produced by the Cheese Rind Microbiome ([1]UCSC, [2]BRUKER, [3]BRUKERSG) °Wen Donq Looi[3], Robert Shepard[1], Gordon Luu[2], Sumankalai Ramachandran[2], Azad Eshghi[2], Laura Sanchez[1]

4P-AM-35 Proteomic Profiling of 5-Fluorouracil Resistance in Colorectal Cancer: Unveiling Molecular Signatures for Targeted Therapy ([1]CBDD, Taipei Med. Univ., [2]PhD CBDD, Taipei Med. Univ., [3]R&D, Natl. Defense Med. Cent., [4]GIMS, Natl. Defense Med. Cent.) °Tsui-Chin Huang[1,2], Tze-Ting Kuo[2,3], Li-Chun Lin[2], Hsin-Yi Chang[3,4]

4P-AM-36 ☆Identification of coffee aroma using atmospheric pressure corona discharge ionization mass spectrometry (APCDI-MS) (Yokohama City Univ.) °Momomi Morita, Kanako Sekimoto

4P-AM-37 Development of an Automated System for the Pretreatment of Small Amounts of Samples for Radiocarbon Measurements Using Accelerator Mass Spectrometry (Univ. Tokyo) °Yosuke Miyairi, Takahiro Aze, Yusuke Yokoyama

4P-AM-38 Simultaneous Quantification of Antiepileptic Drugs in Serum and Dried Blood Spots using Liquid Chromatography–Tandem Mass Spectrometry ([1]KRISS, [2]NRC) Mariam Abady[1,2], Ji-Seon Jeong[1], °Ha-Jeong Kwon[1]

4P-AM-39 ☆Development and Application of Cysteine-specific modification for LC-MS analysis ([1]Sch. Sci., Kitasato Univ., [2]Sch. Allied Health Sci., Kitasato Univ., [3]Cent. Disease Proteomics, Sch. Sci., Kitasato Univ.) °Arisa Suto[1], Yoshihiro Ishikawa[1], Toshihide Matsumoto[2], Yoshio Kodera[1,3], Takashi Matsui[1,3]

4P-AM-40 ☆Characterization of Toxin-like Peptides in the *Badumna insignis* Spider Venom (Kyoto Univ.) °Tomoya Shidawara, Rei Yamamoto, Yoshiaki Nakagawa, Masahiro Miyashita

4P-AM-41 ☆Elucidation of Degradation State of Glass Fiber Reinforced Polypropylene Using TG-TOFMS Coupled with Principal Component Analysis and Kendrick Mass Defect Analysis (AIST) °Taiki Ozawa, Sayaka Nakamura, Hiroaki Sato, Hideyuki Shinzawa, Hideaki Hagihara, Ryota Watanabe

4P-AM-42 ☆Peptidomic analysis of mouse tissues ([1]Sch. Sci., Kitasato Univ., [2]Sch. Med., Kitasato Univ., [3]Cent. Disease Proteomics, Sch. Sci., Kitasato Univ., [4]Kazusa DNA Research Institute) °Yusei Okuda[1], Makoto Itakura[2,3], Ryo Konno[4], Tomomi Taguchi[2], Takeshi Miyatsuka[2], Takashi Matsui[1,3], Yusuke Kawashima[4], Yoshio Kodera[1,3]

4P-AM-43 ☆Protein Terminomics-centric Analyses of Human Noncanonical Proteomes Reveal the Diversity of Human Proteoforms ([1]Kyoto Univ., [2]Institute of Science Tokyo, [3]NIBIOHN) °Riko Egawa[1], Hiroshi Nishida[1], Yuta Kochi[2], Kosuke Ogata[1], Yasushi Ishihama[1,3]

4P-AM-44 ☆Simultaneous Imaging of Proteins and Metals: Nanoparticle-Based Immunoassay Combined with LA-ICP-MS ([1]UTokyo, [2]Juntendo Univ., [3]Dow Chemical Japan) °Hiroki Nawa[1,3], Takehisa Matsukawa[2], Ayano Kubota[2], Takafumi Hirata[1]

4P-AM-45 ☆Method development for untargeted metabolomics investigating biomarkers for Functional Neurological Disorder in children and adolescents. ([1]CFS, UTS, [2]C3, UTS, [3]Centre for Chemistry, UTS, [4]The Children's Hospital at Westmead, Australia) °Rinika Barua[1], Shanlin Fu[1], Jingyi Yan[3], Unnikrishnan Kuzhiumparambil[2], Kasia Kozlowska[4]

4P-AM-46 ☆Development of Isoform-Specific Substrate Peptides for Monitoring PKC Activity ([1]Kyoto Univ., [2]NCVC, [3]NIBIOHN) °Saki Toi[1], Junqi Liang[1], Junna Nakazono[1], Dai Sakamoto[1], Naoyuki Sugiyama[1,2], Yasushi Ishihama[1,3]

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4P-AM-47 (2C-03-1640) ☆Proteome-Wide Profiling of Protein Structural Dynamics by Phospho-Probing with Multiple Kinases ([1]Kyoto Univ., [2]NCVC, [3]NIBIOHN) °Asato Maeda[1], Kosuke Ogata[1], Naoyuki Sugiyama[1,2], Yasushi Ishihama[1,3]

4P-AM-48 ☆Investigation of a Chiral Selective SALDI Substrate for Amino Acids Using MHD Effect (NIT) °Hiroki Tanaka, Yoshinori Iiguni, Shinya Kitagawa

4P-AM-49 ☆Metabolomic analysis of extracellular vesicles released by cellular senescence ([1]Keio Univ., [2]NCC) °Ryosuke Hayasaka[1], Sho Tabata[1,2], Tomoyoshi Soga[1], Akiyoshi Hirayama[1]

4P-AM-50 ☆Mass spectrometry reveals the stoichiometric regulation and phosphorylation for early stage activation of NLRP3 inflammasome ([1]IBC, Academia Sinica, [2]IBS, NTU) °Ning-En Chang[1], Yen-Ling Chen[1,2], Hsin-Yung Yen[1,2]

4P-AM-51 ☆Single-Molecule-Mediated Proton Transfer in Protonated Aminocinnamic Acid: Studied by Ion Mobility-CID-Mass Spectrometry (Tohoku Univ.) °Kengo Tsunoda, Daiki Fuse, Keijiro Ohshimo, Fuminori Misaizu

4P-AM-52 ☆The effect of orthokeratology lens wear on the proteins of tear fluid ([1]Menicon, [2]Nagoya Univ.) °Madoka Yoshimitsu[1], Yuri Shimizu[1], Hikaru Hirata[1], Keiko Kano[2], Emi Mishiro-Sato[2], Taizo Sumide[1]

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Poster Display: 8:15～17:15

Core time (Odd numbers): 15:15～16:15

Core time (Even numbers): 16:15～17:15

4P-PM-01 (Withdrawn) Achieving High-Order Time Focusing with Single-Stage Reflectron TOFMS - A Theoretical Study (GRC, Academia Sinica) Yi-Hong Cai, °Yi-Sheng Wang

4P-PM-02 Dielectric Breakdown-based Ambient Ionization Mass Spectrometry (NYCU) Min-Li Wu, Te-Yu Chen, De-Yi Huang, Jia-Jen Tsai, Karuppuchamy Selvaprakash, Chin-Pao Chiu, Yi-Ying Wu, °Yu-Chie Chen

4P-PM-03 Mass Spectrometry Imaging of Crude Drugs Using Transfer Plates ([1]Kyushu Univ. Med. Sci., [2]Hamamatsu Univ. Sch. Med., [3]Preppers, [4]Hamamatsu Photonics) °Hisahiro Kai[1], Takumi Sakamoto[2,3], Takamasa Ikeda[4], Yutaka Takahashi[2,3], Mitsutoshi Setou[2,3]

4P-PM-04 ExD vs. EthCD: A Comparative Study for Top-Down Sequencing of Amphibian Disulfide Peptides ([1]MSU-BIT, [2]Agilent, [3]Univ. Hong Kong) °Dmitrii Mazur[1], Tatiana Samgina[1], Yinan Li[3], Michael Hare[2], Yuriy Vasil'ev[2], Albert Lebedev[1]

4P-PM-05 A Comprehensive Strategy for Systematically Evaluating the Clinical Significance of Multiple Protein Biomarker Candidates in Bladder Cancer ([1]Chang Gung University, [2]Chang Gung Memorial Hospital) °Yi-Ting Chen[1], Chien-Lun Chen[2]

4P-PM-06 AIST apps for analyzing various types of mass spectral/chromatogram data by data informatics techniques (AIST) °Hideyuki Shinzawa, Shogo Yamane, Ryota Watanabe, Taiki Ozawa, Sayaka Nakamura, Hideaki Hagihara

4P-PM-07 Quantitative analysis of tridecylcyclohexane in mice using SPME-GC/MS ([1]GSS Univ. Osaka, [2]NIBIOHN, [3]IPR Univ. Osaka) °Junichi Osuga[1], Fuminori Iijima[2], Yoshiatsu Aomine[3], Toyomasa Katagiri[2], Michisato Toyoda[1]

4P-PM-08 Study of Negative Differential Resistance and Ion Emission Characteristics from a Taylor Cone of Undiluted Ionic Liquid Using High-Pressure ESI (Univ. Yamanashi) °Lee Chuin Chen, Takeshi Matsuda

4P-PM-09 Investigation of correlation between glucoamylase and *haze-komi* in rice *koji* ([1]Osaka Univ., [2]Institute for Open and Transdisciplinary Research Initiatives) °Hiroko Shinoda[1], Eiichiro Fukusaki[1,2], Shuichi Shimma[2]

4P-PM-10 MALDI Mass Spectrometry Using 2D Nanomaterial MXene for Rapid Screening of Illicit Drugs (KRISS) Jiyeong Song, Ji-In Baek, °Sohee Yoon

4P-PM-11 Structure Analysis of Alkaloids in Pt-coated Porous Plate MALDI Mass Spectrometry using a Spiral TOF Instrument. ([1]NAIST, [2]SUNBOR) °Yoshiko Nishikawa[1], Tohru Yamagaki[2]

4P-PM-12 Exploration of Biomarkers Related to Metabolic Syndrome Induced by Atypical Antipsychotics ([1]Grad.Sch.Pharm.Sci,Tohoku·Univ., [2]Grad.Sch.Pharm.Sci,Tohoku·Univ./Dept.Pharm.Sci,Tohoku·Univ,Hosp) °Haozhu Wang[1], Masamitsu Makawa[2], Nariyasu Mano[2]

4P-PM-13 High multiplexity imaging proteomics via tissue expansion (HKBU) °Xin Diao, Jianing Wang, Zongwei Cai

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4P-PM-14 Ambient Ionization Mass Spectrometry for Rapid Characterization of Biomarkers on Inflamed Skin (NSYSU, Taiwan) °Shu-Yao Lin, Jentaie Shiea

4P-PM-15 Quantitative Analysis of Endogenous Neuropeptide Y in Developing Brains of Mice and Appetite formation ([1]SUNBOR, [2]Kanazawa Univ., [3]Hamamatsu Univ. of Medicine) °Tohru Yamagaki[1], Tomohiro Osugi[1], Yohei Shinmyo[2,3], Hiroshi Kawasaki[2], Honoo Satake[1]

4P-PM-16 Mass Spectrometry Analytical Tools in the Dating of the Chinese Ancient Scrolls ([1]MSU-BIT University, [2]LECO, USA) °Olga Poliakova[1], Maria Kondratyeva[1], Zhuangzhi Li[1], Viatcheslav Artaev[2], Jonell Shiel[2], Scott Pugh[2], Albert Lebedev[1]

4P-PM-17 Characterization of Flavor Components in Rice *Koji* during the *Koji* Molding Process (Osaka Univ) °Kansuke Fujikawa

4P-PM-18 Biologically Informative NA Deconvolution (BIND) promotes excavation of unique proteins and protein-protein interactions from proteomics datasets (CityUHK) °Weiheng Guo, Liang Zhang

4P-PM-19 Development of mass spectrometry-based single-cell multi-omics analysis ([1]Kyushu Univ., [2]RIKEN CBS, [3]YODAKA., [4]Niigata Univ., [5]RAP) °Kosuke Hata[1], Asako Sakaue-Sawano[2], Masatomo Takahashi[1], Mamoru Hirafuji[3], Kohta Nakatani[1], Masaki Matsumoto[4], Takeshi Bamba[1], Atsushi Miyawaki[2,5], Yoshihiro Izumi[1]

4P-PM-20 Comparison of protease activity in different malting methods using mass spectrometry imaging ([1]Osaka Univ., [2]OTRI) °Tomoka Takeno[1], Eiichiro Fukusaki[1,2], Shuichi Shimma[1,2]

4P-PM-21 UPLC-MS/MS Analysis of PFAS for Evaluation of its Removal from Drinking Water with Granular Activated Carbon (NTU EOHS) °Siao-Tong Chen, Gen Shuh Wang

4P-PM-22 Branched-Chain Amino Acid Metabolism as a Crucial Modulator of Cellular Senescence (Gunma Univ) °Hideru Obinata, Kazuki Irie, Yuma Aramaki, Junki Hoshino, Yoji Minamishima, Akimitsu Konishi

4P-PM-23 Repurposing Statins Induces Metabolic Reprogramming and Triggers Ferroptotic Regression in KRAS-Mutant Colorectal Cancer (HKBU) °Jieqing Feng, Hong Yan, Zongwei Cai

4P-PM-24 Development of Phosphoproteomics Prediction Model for Next-line Therapy in TKI-Resistant Non-Small Cell Lung Cancer ([1]NTU Chem, [2]IoC, [3]NTNU, [4]NTU CliLab) °Irene-Ya Tai[1,2], Chiao-Chun Chang[2], Shen-Shian Chan[1,2], Yu-Hsuan Lin[2,3], Yi-Ju Chen[2], Sung-Liang Yu[4], Yu-Ju Chen[1,2]

4P-PM-25 Structural Analysis of Anion Exchange Membranes for Alkaline Water Electrolysis via Thermal and Chemical Depolymerization Methods (Toray Research) °Tsuyoshi Akiyama, Akihiro Masuda, Naru Higeta, Keiko Matsuda

4P-PM-26 Developing OrthoCell Matrix to Enhance Absolute Protein Quantification Performance in LC-MS/MS: Demonstration of EGFR Mutation in Lung Cancer ([1]NTU, [2]IOC) °Chia-Yen Wang[1,2], Huan-Chi Chiu[2], Li-Yu Chen[2], Ching-Yi Wan[2], Yu-Ju Chen[1,2]

4P-PM-27 Single-cell native mass spectrometry of cultured human cells for characterization of protein non-covalent interactions (Yokohama City Univ.) Noa Suzuki, Yuko Inatomi, °Michiko Tajiri, Tsuyoshi Konuma, Satoko Akashi

4P-PM-28 Proteomic Analysis of Sebocytes Co-Cultured with Mesenchymal Stem Cells (CNU) °Maryam Adelipour, Jeongkwon Kim

4P-PM-29 High-Throughput Synthesis of Stable Isotope-Labeled Peptides Using Synthetic ssDNA Oligo Pools. (RIKEN BDR) °Reiko Nakagawa, Keiko Masuda, Aya Sato, Yoshihiro Shimizu

4P-PM-30 Determination of Antifouling Booster Biocides in Seawater using Semi-automatic Solid-Phase Extraction (SPE) System and High-performance Liquid Chromatography-Tandem Mass Spectrometry (NPUST) °Tzu Wang, Te Kung

4P-PM-31 Exploration of Endogenous Metabolites Associated with Immune Responses in Bovine Serum (Osaka Univ.) °Hiroko Kato, Sicheng Tian

4P-PM-32 Targeted Metabolomics Reveals the Essential Role of Nicotinamide Mononucleotide Adenylyltransferase (NMNAT) in Nicotinamide Adenine Dinucleotide (NAD^+) Homeostasis in the Cyanobacterium *Synechococcus elongatus* ([1]HKBU/Chem, [2]HKBU/Bio, [3]EIT) °Feng Zhang[1], Hai Lei Zhang[2], Peng Xi Wang[2], Yiji Xia[2], Zong Wei Cai[1,3]

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4P-PM-33 MS Spectrometry based Proteomic Analysis of Bovine Serum for Development of Cell Culture Media ([1]KBSI, [2]KBSI_2, [3]KRIBB, [4]UST) °Soojin Park[1], Hae Min Ju[2], Jin Young Kim[2,3], Heeyoun Hwang[2,4]

4P-PM-34 Comprehensive Analysis and Detailed Data Comparison of Skin Gas and Its Changes Using High-Sensitivity GCxGC-TOFMS (LECO) °Masafumi Sakurai, Fumie Kabashima

4P-PM-35 Comparative Metabolic Profiling of Honey Bees (*Apis Mellifera*) in Response to Regional Differences and Climate Change in South Korea. (KIT) °Sung-Gil Choi, Yoon-Jeong Jeon, Jin-Woo Park, Won Noh, Jong-Su Seo, Jong-Hwan Kim

4P-PM-36 The Development of the Cryogenic Ion Trap-TOF Mass Spectrometry for Infrared Photodissociation Spectroscopy ([1]Ningbo University, [2]Fudan University) °Chuan-Fan Ding[1], Fuxing Xu[1], Guanjun Wang[2], Chaoxian Chi[1], Yinghua Yan[1], Mingfei Zhou[2]

4P-PM-37 Metabolomic Analysis of Honey Bees (*Apis Mellifera*) Response to Coumaphos Exposure Using UPLC-Q-TOF/MS (KIT) °Jin-Woo Park, Yoon-Jeong Jeon, Sung-Gil Choi, Won Noh, Jong-Su Seo, Jong-Hwan Kim

4P-PM-38 Spectra-Sum Method for Protein Quantification from LC-MS/MS and TMT labeling Data ([1]KBSI, [2]UST-KBSI, [3]CDDC Research Center) °Heeyoun Hwang[1,2], Hahyun Lee[1,3], Geul Bang[1], Jin Young Kim[1,3]

4P-PM-39 Optimization and Performance Evaluation of a Portable GC for the Detection of Volatile Organic Compounds and Its Compatibility with APCI-MS ([1]CNU, [2]BIONEER, [3]Chungnam National Univ.) °Jiwon Park[1], Sunjong Baek[2], Jeongkwon Kim[3]

4P-PM-40 Dependence of Decoy Database on Peptide Identification Numbers in Bottom-Up Proteomics ([1]Kyoto Univ., [2]NIBN) °Yuichiro Fujita[1], Yasushi Ishihama[1,2]

4P-PM-41 Comparison of PEG Precipitation and Ultrafiltration for Serum Exosome Enrichment : Proteomic Analysis Using Mass Spectrometry ([1]CNU, [2]Chungnam National Univ.) °Hyeongyu Yu[1], Jeongkwon Kim[2]

4P-PM-42 Structures of $(Li^+I)_nLi^+$ Cluster Ions Solvated by Ethylenediamine (POSTECH) °Yunseop Choi, Jongcheol Seo

4P-PM-43 Charge-Induced Unzipping Pathways Compared with DNA/RNA Hairpins Melting Using IMS-MS (POSTECH) °Dahye Im, Jongcheol Seo

4P-PM-44 Phosphotyrosine Spectral Library-enhanced DIA-PRM Mass Spectrometry Enables Machine Learning-powered Companion Biomarker Discovery in Lung Cancer ([1]Dept. of Chemistry, NTU, Taiwan, [2]IoC, AS, Taiwan, [3]Dept. of Chemistry, NTNU, Taiwan, [4]Dept. of BST, NTU, Taiwan) °Shen-Shian Chan[1,2], Chiao-Chun Chang[1,2], Irene-Ya Tai[1,2], Yu-Hsuan Lin[2,3], Yi-Ju Chen[2], Sung-Liang Yu[4], Yu-Ju Chen[1,2]

4P-PM-45 SALDI-MS using Particle Aggregation-Type Substrates with Two-Dimensional Lattice-like Patterning of Magnetic Nanoparticles on Soft Magnetic Microgrids (Nagoya Inst. Tech.) °Yoshinori Iiguni, Mai Sakamoto, Shuta Sawatari, Shinya Kitagawa

4P-PM-46 High resolution multi-turn TOF-MS for native mass analyses of large biomolecules ([1]Shimadzu Corporation, [2]Osaka Metropolitan Univ., [3]Yokohama City Univ.) Yusuke Tateishi[1], Hiroko Morinaga[1], Hiroyuki Miura[1], Yoshinori Arita[1], °Masaru Nishiguchi[1], Daisuke Okumura[1], Hitomi Sawai[2], Michiko Tajiri[3], Terukazu Nogi[3], Satoko Akashi[3]

4P-PM-47 Comprehensive Mapping of Nucleosome-Nuclear Protein Interactions Using Crosslinking Mass Spectrometry (IQB, UTokyo) °Lumi Negishi, Tomoko Ito, Junko Kato, Tomoya Kujirai, Hitoshi Kurumizaka

4P-PM-48 Evaluation of contamination sources of metal elements by monitoring for airborne materials in the cleanroom at extraterrestrial sample curation facility ([1]JAXA, [2]Marine Works Japan) °Arisa Nakano[1], Ryota Fukai[1], Yuya Hitomi[2], Masahiro Nishimura[1]

4P-PM-49 Ensuring Depth and Completeness in m/z Selection : A Methodological Approach to Mass Spectrometry Imaging Data Summarization Using UMAP ([1]Shimadzu Corp., [2]Doshisha Univ.) °Shinichi Yamaguchi[1], Masaya Ikegawa[2]

4P-PM-50 Sensitive methods for characterization of the HLA-DR immunopeptidome of extracellular vesicles from immune cells from bronchoalveolar lavage in respiratory disease ([1]Karolinska inst, [2]Karolinska Inst) Benedikt Zohrer[1], Iryna Kolosenko[1], Nicole Wagner[1], Magnus Skold[1], Akos Vegvari[2], °Asa Wheelock[1]

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〈Corporate Posters〉

[4P-CP] Corporate Posters 4P-CP

Poster Display and Presentation : 8 : 15 ～17 : 15

4P-CP-01 COMPLETE CHARACTERIZATION OF KADCYLA USING A MODIFIED HYBRID QUADRUPOLE-ORBITRAP MASS SPECTROMETRY WITH ELECTRON-TRANSFER/HIGHER-ENERGY COLLISION DISSOCIATION (ETHCD) FRAGMENTATION ([1]Thermo Fisher Scientific Shanghai, [2]Thermo Fisher Scientific Singapore) Xiaoxi Zhang[1], °Nicole Zhang[2]

4P-CP-02 COMPREHENSIVE AND HIGH-THROUGHPUT PLASMA PROTEOME PROFILING FOR BIOMARKER DISCOVERY USING A MODIFIED THERMO SCIENTIFIC™ ORBITRAP™ ASTRAL™ MASS SPECTROMETER ([1]Thermo Fisher Scientific San Jose, [2]Thermo Fisher Scientific Singapore) Jared Deyarmin[1], °Nicole Zhang[2]

4P-CP-03 HIGH-THROUGHPUT PLASMA PROTEOMICS PIPELINE ENHANCED BIOMARKER DISCOVERY IN EARLY DETECTION OF NON-SMOKING LUNG CANCER ([1]National Taiwan University, [2]Academia Sinica Taipei, [3]Academia Sinica, [4]Thermo Fisher Scientific San Jose, [5]Thermo Fisher Scientific Singapore, [6]National Taiwan University Hospital, [7]Chung Shan Medical University Hospital, [8]National Taiwan University Hospital and National Taiwan University College of Medicine, [9]National Taiwan University Hospital, Taipei, [10]Thermo Fisher Scientific Poland) Sung-Liang Yu[1], Yi-Ju Chen[2], Kun-Hao Chang[2,3], Yi-Shuang Chuang[2], Yi-Jing Hsiao[2], Chong-Jen Yu[6], Daniel Hermanson[4], Gee-Chen Chang[7], Jin-Shing Chen[8], Pan-Chyr Yang[9], Yu-Ju Chen[2], Maciej Bromirski[10], °Nicole Zhang[5]

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One-on-one Consulatations

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Stop by our booth for a one-on-one consultation (15-min session) with our experts! Get personalized insights, explore cutting-edge solutions, and discover how our technology can advance your research.

Don't miss this exclusive opportunity—schedule your session today!

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See how researchers are advancing plasma proteomics, immunopeptidomics, and metabolomics with Thermo Scientific™ Orbitrap™ and Stellar™ mass spectrometers.

Explore posters highlighting innovative LC-MS workflows for biomarker discovery, cancer detection, and more in translational and clinical research.

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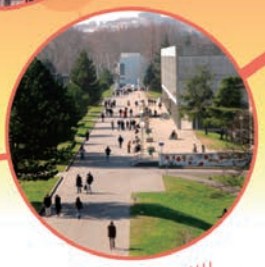

DGMS Deutsche Gesellschaft für Massenspektrometrie

IMSF International Mass Spectrometry Foundation

SFSM

sgms

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Excellence in Science

Liquid Chromatograph Mass Spectrometer

LCMS-TQ RX Series

Innovative technology, exceptional design and new ways of thinking are part of our engineering DNA delivering solutions for the ever-changing needs of any laboratory. As our scientific and business needs change our engineering design evolves and adapts. The result is the RX Series of triple quadrupole LC-MS instruments designed with unmatched capability, redefined reliability and creating a new standard in actionable data.

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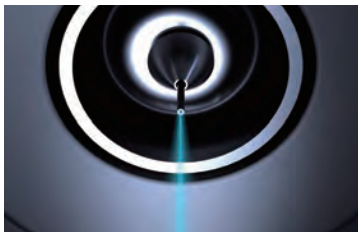
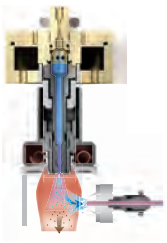
CoreSpray, a newly developed gas delivery system, improves performance and uniformity of nebulization with higher flows and better heat transfer.





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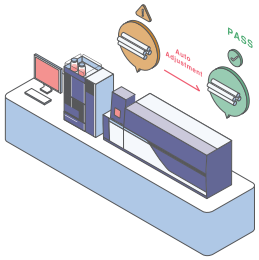
PERFORMANCE CONCIERGE makes tuning a mass spectrometer easier than ever before. A tuning standard is automatically introduced into the instrument to verify parameters, including mass accuracy, resolution, and signal strength. Based on these checks, tuning may be automatically initiated to ensure optimal performance. Should the criteria not be met, PERFORMANCE CONCIERGE will diagnose the issue and alert the operator of required maintenance and maximize uptime.

ANALYTICAL INTELLIGENCE

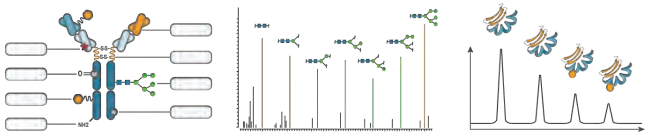
PERFORMANCE CONCIERGE



Shimadzu Corporation www.shimadzu.com/an/

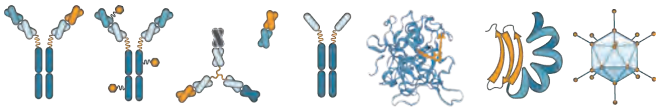
MS Data Analysis Solution (MSデータ解析ソリューション)

Genedata Expressionist® is a powerful enterprise software solution that streamlines biopharma mass spectrometry workflows across instruments and organizations. It automates and harmonizes all MS data processes to deliver high quality results with significant time and cost savings.



ALL APPLICATIONS

Glycoanalysis, intact mass analysis, peptide mapping, HCP analysis, Multi-attribute method (MAM), sequence variant analysis (SVA)



ALL MODALITIES

Antibodies, multi-specifics, fusion proteins, therapeutic oligonucleotides, CGT, ADCs

ALL INSTRUMENTS

SCIEX, Thermo, Waters, Shimadzu, Bruker, Agilent, and others

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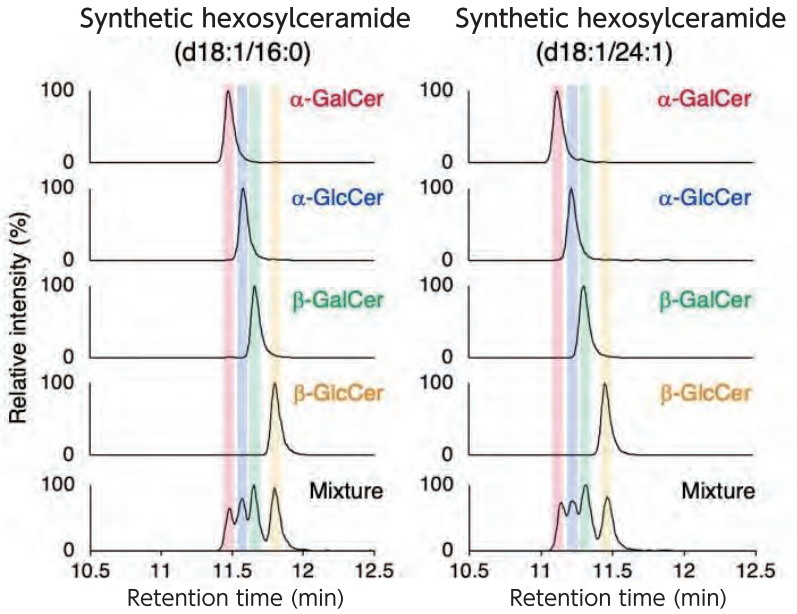
danaher

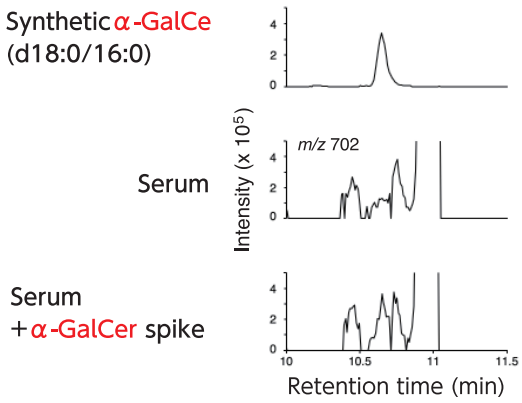
DAICEL's Quartet Column

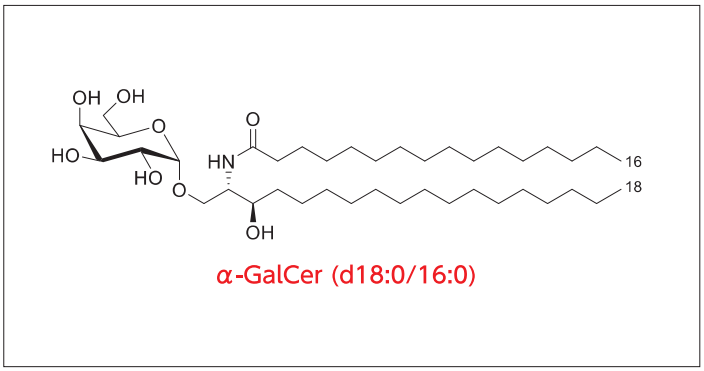
Application Example:
Using the metal-free DCpak® P4VP column, hexosylceramides were successfully separated and analyzed, leading to the identification of self-antigens that activate NKT cells — immune cells known for their ability to eliminate cancer cells.

1) Separation of four isomers (α-GalCer, β-GalCer, α-GlcCer, β-GlcCer) using SFC-MS.



2) Detection of α-GalCer (d18:0/16:0) in serum by SFC-MS





SFC conditions

SFC Column	: Two metal-free P4VP column (2.1mm x 150mm, 3μm)
Column temp.	: 40℃
Flow rate	: 0.8mL/min
Make-up(MS)	: 0.1mL/min
Back pressure regulator	: 10MPa
Injection volume	: 5μL
Mobile phase	A : CO_2
	B : ammonium acetate in MeOH/H_2O (95/5, v/v)

Gradient conditions

Time (min)	B (%)
0.0	1
1.0	1
15.0	45
35.0	45
35.1	1
45.0	1

Reference; "Identification of alpha-galactosylceramide as an endogenous mammalian antigen for iNKT cells" : Yuki Hosono, Noriyuki Tomiyasu, Hayato Kasai, Eri Ishikawa, Masatomo Takahashi, Akihiro Imamura, Hideharu Ishida, Federica Compostella, Hiroshi Kida, Atsushi Kumanogoh, Takeshi Bamba, Yoshihiro Izumi and Sho Yamasaki
DOI: https://doi.org/10.1084/jem.20240728

As a global company, Daicel has local support organizations serving key regions worldwide.

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