

# Program

Tuesday, September 13

Room A (Orbit Hall)

## Plenary Lectures 1

(10:00~10:50) Chair: Ryuichi Arakawa (Kansai Univ.)

**1A-PL-1000** Fundamental Insights and Future Prospects on Development of Mass Spectrometers (Osaka Univ.) °Michisato Toyoda

## Oral Presentations

(11:00~12:00) Chair: Yasushi Ishihama (Kyoto Univ.)

**1A-O1-1100** ☆Structural analysis of TFIIE by Ion Mobility-Mass Spectrometry and Small-Angle X-ray Scattering (Yokohama City Univ.) °Kazumi Saikusa, Takasi Oda, Masahiko Okuda, Mitsunori Ikeguchi, Mamoru Sato, Yoshifumi Nishimura, Sato-ko Akashi

**1A-O1-1120** ☆Analysis of Dimer Formation of Carnosine Dipeptidase 2 (CNDP2) by ESI-TOF MS (<sup>1</sup>Inst. Protein Res., Osaka Univ., <sup>2</sup>JEOL Ltd.) °Nobuaki Okumura<sup>1</sup>, Jun Tamura<sup>2</sup>, Toshifumi Takao<sup>1</sup>

**1A-O1-1140** High-throughput Protein Identification with ESI-chip System (CERI) °Hidenori Yamanaka, Naoaki Yakata, Yosuke Maeda, Masahiro Takeyoshi

## Luncheon Seminar (Presented by K.K. AB SCIEX)

(12:10~13:10)

**1A-L-1210** Ultra Selectivity Quantification with AB SCIEX SelexION<sup>TM</sup> (AB SCIEX) °Shigeru Yamada

## Poster Short Presentations

(13:15~13:50) Chair: Munehiro Katagi (Osaka Pref. Police Dep.)

**1A-SP-1315** ☆Rapid Analytics of Lipid by Visualization of Mass Spectrum (<sup>1</sup>Univ. of Electro-Communications, <sup>2</sup>JEOL Ltd.) °Shinichi Mukosaka<sup>1,2</sup>, Kanae Teramoto<sup>2</sup>, Hideki Koike<sup>1</sup>

**1A-SP-1320** ☆Development of Simultaneous LC-MS/MS Analysis for Angiotensin Peptides in Rat Plasma (Exploratory Research Laboratories, Research Center, Ajinomoto Pharmaceuticals Co., Ltd.) °Taro Nakamura, Shizuka Aritomi, Yoshiro Kitahara, Itsuya Tanabe

**1A-SP-1325** ☆Structural dynamics analysis of GAPDH for functional regulation by hydrogen/deuterium exchange coupled with mass spectrometry (<sup>1</sup>JST ERATO, <sup>2</sup>Keio Univ.) °Tatsuya Yamamoto<sup>1,2</sup>, Yasuaki Kabe<sup>1,2</sup>, Makoto Suematsu<sup>1,2</sup>

**1A-SP-1330** ☆Affinity-Trap Polyacrylamide Gel Electrophoresis Using Phos-tag for Phosphoprotein Profiling (<sup>1</sup>IPR, <sup>2</sup>Hiroshima Univ.) °Chihiro Awada<sup>1</sup>, Eiji Kinoshita<sup>2</sup>, Tohru Koike<sup>2</sup>, Toshifumi Takao<sup>1</sup>

**1A-SP-1335** ☆Rapid cancer diagnosis using electrospray ionization mass spectrometry (<sup>1</sup>Yamanashi Univ., <sup>2</sup>Yamanashi Univ., <sup>3</sup>Yamanashi Univ.) °Kentarō Yoshimura<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Mridul Kanti Mandal<sup>3</sup>, Kenzo Hiraoka<sup>3</sup>, Sen Takeda<sup>1</sup>

**1A-SP-1340** ☆A comprehensive analysis of DNA adducts in lungs of mice exposed to nanomaterials using nanoLC-QT of MS (<sup>1</sup>Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Grad. Sch. of Nutr. & Environ. Sci. Univ. of Shizuoka) °Kousuke Ishino<sup>1</sup>, Tatsuya Kato<sup>1,2</sup>, Yukari Totsuka<sup>1</sup>, Hitoshi Nakagama<sup>1</sup>

**1A-SP-1345** ☆Development of a polar lipid profiling method by supercritical fluid chromatography/mass spectrometry (Osaka Univ.) °Jae Lee, Takashi Yamamoto, Takato Uchikata, Atsuki Matsubara, Eiichiro Fukusaki, Takeshi Bamba

## Oral Presentations

(16:00~17:20) Chair: Takemichi Nakamura (RIKEN)

**1A-O2-1600** Evidence of Charge-localization Isomers—(−)ESI-MS/MS of a Disaccharide Disulfate (<sup>1</sup>Univ. of Electro-Comm., <sup>2</sup>RIKEN, <sup>3</sup>Thermo) °Yoko Ohashi<sup>1,2</sup>, Masayuki Kubota<sup>3</sup>, Hiroshi Hatase<sup>1</sup>, Takashi Hirano<sup>1</sup>, Shojiro Maki<sup>1</sup>, Haruki Niwa<sup>1</sup>

**1A-O2-1620** Effects of pyrene derivatization on glycopeptides-matrix interaction during crystallization (Noguchi Inst.) °Junko Amano, Hisako Okumura, Takashi Nishikaze

**1A-O2-1640** ☆Therapeutic oligonucleotides sequencing by mass spectrometry (<sup>1</sup>JCL, <sup>2</sup>Ribomic, <sup>3</sup>Tokyo Univ.) °Shohei Shioyama<sup>1</sup>, Yukiko Nishida<sup>1</sup>, Junji Yamaura<sup>2</sup>, Emire Inomata<sup>2</sup>, Tomonori Takami<sup>1</sup>, Rieko Goto<sup>1</sup>, Shin Miyakawa<sup>2</sup>, Yoshikazu Nakamura<sup>3</sup>

Sep. 13, Tues.

1A-O2-1700 ☆Development of coupled column liquid chromatography-tandem mass spectrometry method for the simultaneous determination of prostaglandins E<sub>1</sub>, E<sub>2</sub>, E<sub>3</sub> and the metabolites in human plasma (Osaka Lab.)  
°Fumiyuki Nakagawa, Akihiro Sunagawa

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

Room B (Seiun 1)

#### Oral Presentations

(11:00~12:00) Chair: Takae Takeuchi (Nara Women's Univ.)

1B-O1-1100 ☆ESI-like characteristics of atmospheric pressure MALDI (<sup>1</sup>Kansai Univ., <sup>2</sup>AIST)  
°Shinya Takaoka<sup>1</sup>, Hideya Kawasaki<sup>1</sup>, Masato Kiuchi<sup>2</sup>, Ryuichi Arakawa<sup>1</sup>

1B-O1-1120 SALDI-Mass Spectrometry of Oligopeptides using anisotropic metal nanoparticles (<sup>1</sup>Kyushu Univ., <sup>2</sup>I2CNER, WPI, <sup>3</sup>CREST) °Yasuro Niidome<sup>1,2</sup>, Masanori Fujii<sup>1</sup>, Yuki Nakamura<sup>1</sup>, Naotoshi Nakashima<sup>1,2,3</sup>

1B-O1-1140 ☆A New Hypothesis of Desorption in UV-MALDI: Threshold Laser Power of Analyte Ions with NorHarmane Matrix Was Shifted Depended on the History of Laser Ablation (Ehime Univ.) °Yasuto Sato

Luncheon Seminar (Presented by AMR, Inc.)

(12:10~13:10)

1B-L-1210 1) DBS Method Development to Completely Automated LC/MS/MS Analysis 2) Direct Analysis Techniques for Semisolids and Solids Using DART-MS (<sup>1</sup>AMR, <sup>2</sup>Toray Research, <sup>3</sup>Shiseido) °Teruhisa Shiota<sup>1</sup>, Souki Kanda<sup>2</sup>, Haruo Shimada<sup>3</sup>

#### Poster Short Presentations

(13:15~13:50) Chair: Motohiro Shizuma (OMTRI)

1B-SP-1315 ☆Nanotrap and Analysis by Nano-particle Assisted Laser Desorption/Ionization (Nano-PALDI) MS (<sup>1</sup>JAIST, <sup>2</sup>Osaka Univ., <sup>3</sup>Ishikawa Pref. Univ., <sup>4</sup>Yokohama National Univ.) °Shu Taira<sup>1</sup>, Shuich Shimma<sup>2</sup>, Yasuko Konishi<sup>3</sup>, Yuko Ichiyangi<sup>4</sup>

1B-SP-1320 ☆Improving the Sensitivity in MALDI-MS Analyses by Using Deposition of Small Droplet (Shimadzu Corp.) °Yusaku Hioki, Yuko Fukuyama, Chikako Hamana, Shinichi Iwamoto, Koichi Tanaka

1B-SP-1325 ☆Electron capture dissociation (ECD) and collision induced dissociation (CID) in radio frequency quadrupole ion trap for peptide sequencing (Hitachi Ltd.) °Hiroyuki Satake, Naomi Manri, Akihito Kaneko, Hideki Hasegawa, Yuichiro Hashimoto, Takeshi Sakamoto

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- 1B-SP-1330 (1P-11) ☆Development of Dual Tips Live Single-cell MS for Simultaneous Analysis of Two Region in a Single Cell (<sup>1</sup>Grad. Sch. Biomed. Sci., Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Yuki Yamamoto<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 1B-SP-1335 (1P-12) ☆N-Glycan profiling of HER2 by AQ-labeling method with 3-AQ/CHCA liquid matrix (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Shimadzu Corp., <sup>3</sup>Kyoto Univ., <sup>4</sup>Kyoto Univ., <sup>5</sup>Kyoto Univ., <sup>6</sup>Kyoto Univ., <sup>7</sup>Shimadzu Corp.) °Kaoru Kaneshiro<sup>1</sup>, Makoto Watanabe<sup>2</sup>, Kazuya Terasawa<sup>3</sup>, Hiromasa Uchimura<sup>4</sup>, Kazuharu Shimizu<sup>5</sup>, Gozo Tsujimoto<sup>6</sup>, Koichi Tanaka<sup>7</sup>
- 1B-SP-1340 (1P-13) ☆Direct Analysis of Narcotics by Probe Electrospray Ionization Mass Spectrometry (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi) °Md. Obaidur Rahman<sup>1</sup>, Mridul Kanti Mandal<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Kenzo Hiraoka<sup>1</sup>
- 1B-SP-1345 (1P-14) ☆Drug monitoring by Pico-drop sweat direct mass spectrometry (<sup>1</sup>Hiroshima Univ., Grad. Sch. Biomed. Sci., <sup>2</sup>ITO EN, Ltd., <sup>3</sup>QBiC, RIKEN) °Harue Hiramoto<sup>1</sup>, Kanako Honda<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Iwao Sakane<sup>2</sup>, Sachiko Date<sup>3</sup>, Tsutomu Masujima<sup>1,3</sup>

Yamashita, Ryouta Arakawa, Ayako Sudo, Keishi Machida, Kanako Yokoyama

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

#### Oral Presentations

(16:00~17:20) Chair: Akimasa Fujihara (Osaka Pref. Univ.)

- 1B-O2-1600 ☆Challenge to determining absolute configurations with the aid of chiral auxiliary group (<sup>1</sup>Tokyo Inst. technol., <sup>2</sup>RIKEN ASI, <sup>3</sup>JST ERATO) °Yuki Shioiri<sup>1,2</sup>, Yukishige Ito<sup>2,3</sup>, Osamu Kanie<sup>1,2,3</sup>
- 1B-O2-1620 A drift tube mass spectrometer for low-temperature ion/molecule reactions (Osaka Pref. Univ.) °Kenichi Iwamoto, Haruto Ikuta
- 1B-O2-1640 Photodissociation Spectroscopy of Hydrated Metal Ions in the Temperature-Variable Ion Trap (Kobe Univ.) °Haruki Ishikawa, Takumi Nakano, Toru Eguchi, Takuya Shibukawa, Kiyokazu Fuke
- 1B-O2-1700 Temperature Dependence of Proton Transfer for Multiply-Charged Protein and Peptide Ions (Yokohama City Univ.) °Shinji Nonose, Takuya Okamura, Kazuki

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Room C (Seiun 2)

#### Oral Presentations

(11:00~12:00) Chair: Morio Ishihara (Osaka Univ.)

- 1C-O1-1100** Preliminary examination of noble gases in the Itokawa asteroidal samples returned by the Hayabusa spacecraft (<sup>1</sup>Univ. of Tokyo, <sup>2</sup>Kyushu Univ., <sup>3</sup>Tohoku Univ., <sup>4</sup>JAEA, <sup>5</sup>Tokyo Metropolitan Univ., <sup>6</sup>ANU, <sup>7</sup>Ibaraki Univ., <sup>8</sup>Osaka Univ., <sup>9</sup>Hokkaido Univ., <sup>10</sup>NASA, <sup>11</sup>ISAS/JAXA) °Keisuke Nagao<sup>1</sup>, Ryuji Okazaki<sup>2</sup>, Tomoki Nakamura<sup>3</sup>, Yayoi N. Miura<sup>1</sup>, Takahito Osawa<sup>4</sup>, Ken-ichi Bajo<sup>1,9</sup>, Shintaro Matsuda<sup>1</sup>, Mitsuru Ebihara<sup>5</sup>, Trevor R. Ireland<sup>6</sup>, Fumio Kitajima<sup>2</sup>, Hiroshi Naraoka<sup>2</sup>, Takaaki Noguchi<sup>7</sup>, Akira Tsuchiyama<sup>8</sup>, Masayuki Uesugi<sup>11</sup>, Hisayoshi Yurimoto<sup>9</sup>, Michael E. Zolensky<sup>10</sup>, Kei Shirai<sup>11</sup>, Masanao Abe<sup>11</sup>, Toru Yada<sup>11</sup>, Yukihiko Ishibashi<sup>11</sup>, Akio Fujimura<sup>11</sup>, Toshifumi Mukai<sup>11</sup>, Munetaka Ueno<sup>11</sup>, Tatsuaki Okada<sup>11</sup>, Makoto Yoshikawa<sup>11</sup>, Junichiro Kawaguchi<sup>11</sup>
- 1C-O1-1120** ☆Variations in stable isotope ratios and anion concentrations of in-flight water (Tokyo Univ. of Agr. & Tech.) °Hidemitsu Katsura
- 1C-O1-1140** ☆The Effects of Cell Gas on ICPMS-IT-LCS (Ion Trap Laser Cooling Spectroscopy) (Univ. of Tokyo) °Yuta Yamamoto, Masanori Kitaoka, Takuma Yoshida, Kyunghun Jung, Shuichi Hasegawa

#### Luncheon Seminar (Presented by SHIMADZU CORPORATION)

(12:10~13:10)

- 1C-L-1210** Metabolomics as a novel diagnostic approach for disease (Kobe Univ.) °Masaru Yoshida, Shin Nishiumi, Yasuhiro Irino, Naoya Hatano

#### Poster Short Presentations

(13:15~13:50) Chair: Hiroaki Akutsu (Asahikawa Medical Univ.)

- 1C-SP-1315** ☆A Technical Development for Detecting High Mass Proteins in Microscope-mode Imaging Mass Spectrometry (<sup>1</sup>Hammatsu Photonics K.K., <sup>2</sup>GPI) °Masahiro Hayashi<sup>1</sup>, Yasuhide Naito<sup>2</sup>

- 1C-SP-1320** ☆Application of Imaging Mass Spectrometry in Drug Metabolism and Pharmacokinetic Research—Quantitative Analysis of Whole Body Drug Distribution in Mice— (Drug Metabolism and Pharmacokinetics, Drug Developmental Research Laboratories, Shionogi & Co., Ltd.) °Yukari Tanaka, Nozomi Takai, Kazuhiro Inazawa, Norihito Sato, Yuka Iwamoto, Hiroshi Hasegawa, Yoshito Okabayashi

- 1C-SP-1325** ☆Implementation of Probe Electrospray Ionization (PESI) under Super Atmospheric Pressure: HP-PESI-MS (Univ. Yamanashi) °Lee Chuin Chen, Mridul Kanti Mandal, Kenzo Hiraoka

- 1C-SP-1330** ☆Hybrid Ion Source of ESI and Dielectric Barrier Discharge and Its Application to Metabolomics (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi) °Md. Matiur Rahman<sup>1</sup>, Md. Obaidur Rahman<sup>1</sup>, Mridul Kanti Mandal<sup>1</sup>, Md Ahsan Habib<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Kenzo Hiraoka<sup>1</sup>

- 1C-SP-1335** ☆LC-MS/MS Analysis of Organ Distribution of a Synthetic Estrogen Diethylstilbestrol Orally Administered to Adult Male Rat and Biosynthesis of Testosterone (<sup>1</sup>Meat Science Institute, <sup>2</sup>Rakuno Univ.) °Naoyuki Maeda<sup>1,2</sup>, Satoko Haeno<sup>2</sup>, Kanako Okumura<sup>2</sup>, Hanako Shin<sup>2</sup>, Tomokazu Suzuki<sup>1</sup>, Taku Miyasyo<sup>2</sup>, Hiroshi Yokota<sup>2</sup>

- 1C-SP-1340** ☆Live Single-cell MS analysis of herbal compounds in cultured cells (<sup>1</sup>Grad.Sch. Biomed. Sci., Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Shushi Kiseki<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>

- 1C-SP-1345** ☆HE-CID MS/MS analysis of spider venom using a MALDI-TOF-TOF (JEOL) °Masahiro Hashimoto, Yoshiyuki Itoh, Ayumi Kubo, Jun Tamura, Jyun Onodera

#### Oral Presentations

(16:00~17:20) Chair: Toshiki Sugai (Toho Univ.)

- 1C-O2-1600** ☆Structural analysis of fluoropolymer by using Pyrolysis GC×GC/TOFMS (Asahi Glass Co., Ltd.) °Yoji Nakajima, Yuko Nakamura, Tsuguhide Isemura, Kiyoshi Yamamoto

- 1C-O2-1620** ☆Semi-online LC-MALDI-MS of polyether copolymers using an ODS-modified monolithic silica capillary column (<sup>1</sup>Kansai Univ,

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<sup>2</sup>Kyoto Univ.) °Ken Fujii<sup>1</sup>, Hideya Kawasaki<sup>1</sup>, Kazuki Nakanishi<sup>2</sup>, Ryuichi Arakawa<sup>1</sup>

1C-O2-1640 ☆Analysis of metallofullerene by tandem time-of-flight mass spectrometer with spiral ion trajectory (JEOL) °Ayumi Kubo, Masahiro Hashimoto, Yoshiyuki Itoh, Jun Tamura, Hisashi Komaki, Keiichi Misawa, Jun Onodera

1C-O2-1700 ☆Structures and dissociations of silver bromide cluster Ag<sub>n</sub>Br<sub>m</sub> generated by electron transfer from alkali metal targets (<sup>1</sup>Osaka Pref. Univ., <sup>2</sup>Osaka Univ., <sup>3</sup>Ochanomizu Univ.) °Yusuke Matsui<sup>1</sup>, Shigeo Hayakawa<sup>1</sup>, Akimasa Fujihara<sup>1</sup>, Michisato Toyoda<sup>2</sup>, Hirotohi Mori<sup>3</sup>, Aya Matsuda<sup>3</sup>, Nanako Sato<sup>3</sup>, Natsumi Hirayama<sup>3</sup>

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

#### Poster Room (Gekko)

Core time (Odd numbers): 14:00~15:00

Core time (Even numbers): 15:00~16:00

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

1P-01 ☆Rapid Analytics of Lipid by Visualization of Mass Spectrum (<sup>1</sup>Univ. of Electro-Communications, <sup>2</sup>JEOL Ltd.) °Shinichi Mukosaka<sup>1,2</sup>, Kanae Teramoto<sup>2</sup>, Hideki Koike<sup>1</sup>

1P-02 ☆Development of Simultaneous LC-MS/MS Analysis for Angiotensin Peptides in Rat Plasma (Exploratory Research Laboratories, Research Center, Ajinomoto Pharmaceuticals Co., Ltd.) °Taro Nakamura, Shizuka Aritomi, Yoshiro Kitahara, Itsuya Tanabe

1P-03 ☆Structural dynamics analysis of GAPDH for functional regulation by hydrogen/deuterium exchange coupled with mass spectrometry (<sup>1</sup>JST ERATO, <sup>2</sup>Keio Univ.) °Tatsuya Yamamoto<sup>1,2</sup>, Yasuaki Kabe<sup>1,2</sup>, Makoto Suematsu<sup>1,2</sup>

1P-04 ☆Affinity-Trap Polyacrylamide Gel Electrophoresis Using Phos-tag for Phosphoprotein Profiling (<sup>1</sup>IPR, <sup>2</sup>Hiroshima Univ.) °Chihiro Awada<sup>1</sup>, Eiji Kinoshita<sup>2</sup>, Tohru Koike<sup>2</sup>, Toshifumi Takao<sup>1</sup>

1P-05 ☆Rapid cancer diagnosis using electrospray ionization mass spectrometry (<sup>1</sup>Yamanashi Univ., <sup>2</sup>Yamanashi Univ., <sup>3</sup>Yamanashi Univ.) °Kentaro Yoshimura<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Mridul Kanti Mandal<sup>3</sup>, Kenzo Hiraoka<sup>3</sup>, Sen Takeda<sup>1</sup>

1P-06 ☆A comprehensive analysis of DNA adducts in lungs of mice exposed to nanomaterials using nanoLC-QT of MS (<sup>1</sup>Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Grad. Sch. of Nutr. & Environ. Sci. Univ. of Shizuoka) °Kousuke Ishino<sup>1</sup>, Tatsuya Kato<sup>1,2</sup>, Yukari Totsuka<sup>1</sup>, Hitoshi Nakagama<sup>1</sup>

1P-07 ☆Development of a polar lipid profiling method by supercritical fluid chromatography/mass spectrometry (Osaka Univ.) °Jae Lee, Takashi Yamamoto, Takato Uchikata, Atsuki Matsubara, Eiichiro Fukusaki, Takeshi Bamba

1P-08 ☆Nanotrap and Analysis by Nano-particle Assisted Laser Desorption/Ionization (Nano-PALDI) MS (<sup>1</sup>JAIST, <sup>2</sup>Osaka Univ., <sup>3</sup>Ishikawa Pref. Univ., <sup>4</sup>Yokohama National Univ.) °Shu Taira<sup>1</sup>, Shuich Shimma<sup>2</sup>, Yasuko Konishi<sup>3</sup>, Yuko Ichiyanagi<sup>4</sup>

1P-09 ☆Improving the Sensitivity in MALDI-MS Analy-

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- ses by Using Deposition of Small Droplet (Shimadzu Corp.) °Yusaku Hioki, Yuko Fukuyama, Chikako Hamana, Shinichi Iwamoto, Koichi Tanaka
- 1P-10 ☆Electron capture dissociation (ECD) and collision induced dissociation (CID) in radio frequency quadrupole ion trap for peptide sequencing (Hitachi Ltd.) °Hiroyuki Satake, Naomi Manri, Akihito Kaneko, Hideki Hasegawa, Yuichiro Hashimoto, Takeshi Sakamoto
- 1P-11 ☆Development of Dual Tips Live Single-cell MS for Simultaneous Analysis of Two Region in a Single Cell (¹Grad. Sch. Biomed. Sci., Hiroshima Univ., ²QBiC, RIKEN) °Yuki Yamamoto¹, Hajime Mizuno¹, Naohiro Tsuyama¹, Sachiko Date², Tsutomu Masujima¹,²
- 1P-12 ☆N-Glycan profiling of HER2 by AQ-labeling method with 3-AQ/CHCA liquid matrix (¹Shimadzu Corp., ²Shimadzu Corp., ³Kyoto Univ., ⁴Kyoto Univ., ⁵Kyoto Univ., ⁶Kyoto Univ., ⁷Shimadzu Corp.) °Kaoru Kaneshiro¹, Makoto Watanabe², Kazuya Terasawa³, Hiromasa Uchimura⁴, Kazuharu Shimizu⁵, Gozo Tsujimoto⁶, Koichi Tanaka⁷
- 1P-13 ☆Direct Analysis of Narcotics by Probe Electrospray Ionization Mass Spectrometry (¹CERC, ²Univ. Yamanashi) °Md. Obaidur Rahman¹, Mridul Kanti Mandal¹, Lee Chuin Chen², Kenzo Hiraoka¹
- 1P-14 ☆Drug monitoring by Pico-drop sweat direct mass spectrometry (¹Hiroshima Univ., Grad. Sch. Biomed. Sci., ²ITO EN, Ltd., ³QBiC, RIKEN) °Harue Hiramoto¹, Kanako Honda¹, Naohiro Tsuyama¹, Hajime Mizuno¹, Iwao Sakane², Sachiko Date³, Tsutomu Masujima¹,³
- 1P-15 ☆A Technical Development for Detecting High Mass Proteins in Microscope-mode Imaging Mass Spectrometry (¹Hamamatsu Photonics K.K., ²GPI) °Masahiro Hayashi¹, Yasuhide Naito²
- 1P-16 ☆Application of Imaging Mass Spectrometry in Drug Metabolism and Pharmacokinetic Research—Quantitative Analysis of Whole Body Drug Distribution in Mice—(Drug Metabolism and Pharmacokinetics, Drug Developmental Research Laboratories, Shionogi & Co., Ltd.) °Yukari Tanaka, Nozomi Takai, Kazuhiro Inazawa, Norihito Sato, Yuka Iwamoto, Hiroshi Hasegawa, Yoshito Okabayashi
- 1P-17 ☆Implementation of Probe Electrospray Ionization (PESI) under Super Atmospheric Pressure: HP-PESI-MS (Univ. Yamanashi) °Lee Chuin Chen, Mridul Kanti Mandal, Kenzo Hiraoka
- 1P-18 ☆Hybrid Ion Source of ESI and Dielectric Barrier Discharge and its Application to Metabolomics (¹CERC, ²Univ. Yamanashi) °Md. Matiur Rahman¹, Md. Obaidur Rahman¹, Mridul Kanti Mandal¹, Md Ahsan Habib¹, Lee Chuin Chen², Kenzo Hiraoka¹
- 1P-19 ☆LC-MS/MS Analysis of Organ Distribution of a Synthetic Estrogen Diethylstilbestrol Orally Administered to Adult Male Rat and Biosynthesis of Testosterone (¹Meat Science Institute, ²Rakuno Univ.) °Naoyuki Maeda¹,², Satoko Haeno², Kanako Okumura², Hanako Shin², Tomokazu Suzuki¹, Taku Miyasyo², Hiroshi Yokota²
- 1P-20 ☆Live Single-cell MS analysis of herbal compounds in cultured cells (¹Grad. Sch. Biomed. Sci., Hiroshima Univ., ²QBiC, RIKEN) °Shushi Kiseki¹, Naohiro Tsuyama¹, Hajime Mizuno¹, Sachiko Date², Tsutomu Masujima¹,²
- 1P-21 ☆HE-CID MS/MS analysis of spider venom using a MALDI-TOF-TOF (JEOL) °Masahiro Hashimoto, Yoshiyuki Itoh, Ayumi Kubo, Jun Tamura, Jyun Onodera
- 1P-22 MassBank Hosting Service to Share Mass Spectral Data on Wide Area Networks (¹NAIST, ²NAIST, ³NAIST) °Tasuku Ikeda¹, Yoshito Nihei², Takaaki Nishioka³
- 1P-23 Analysis of Peak-Chemical Substructure Relationships in ESI-MS² Data of Metabolites (NAIST) °Yuya Ojima, Yoshito Nihei, Takaaki Nishioka
- 1P-24 System Enhancement in Mass Spectral Database MassBank (NAIST) °Yoshito Nihei, Tasuku Ikeda, Yuya Ojima, Takaaki Nishioka
- 1P-25 Analysis of Antibodies Using a Novel High Resolution Quadrupole Time-of-Flight Mass Spectrometry Platform and Chromatographic Separations (¹Nihon Waters K.K., ²Waters Corp., ³Waters MS) °Taiji Kawase¹, Asish Chakraborty², St John Skilton², Martin Palmer³, Keith Richardson³, Jason L. Wildgoose³, Kevin Giles³, Martin Green³, Weibin Chen², Kenji Hirose¹
- 1P-26 Mass shift of 1 u of c-type and z-type ions in the electron transfer dissociation of phosphopeptides (¹Osaka Pref. Univ., ²Osaka MCHRI, ³AIST) °Shigeo Hayakawa¹, Ayako Kawaguchi¹, Skinya Matsumoto¹, Michiko Tajiri², Yoshinao Wada², Yasushi Shigeri³
- 1P-27 Automatic MS/MS characterization of N-linked glycopeptides (¹BDAL K.K., ²BDAL GmbH) °Noriyuki Iwasaki¹, Haruo Hosoda¹, Jouji Seta¹, Takashi Nirasawa¹, Andrea Kiehne², Anja

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- Resemann<sup>2</sup>, Ulrike Schweiger-Hufnagel<sup>2</sup>, Arndt Asperger<sup>2</sup>, Detlev Suckau<sup>2</sup>
- 1P-28** An Unbiased Approach to Increasing Proteome Coverage Using Ion Mobility with MSE (<sup>1</sup>Nihon Waters K.K., <sup>2</sup>Waters) °Futoshi Sato<sup>1</sup>, Martha Stapels<sup>2</sup>, Keith Fadgen<sup>2</sup>, Scott Geromanos<sup>2</sup>, Jim Langridge<sup>2</sup>
- 1P-29** Utilizing Focused Acoustic Energy for Disruption of Rat Skin and Eye Tissue during Sample Preparation for LC-MS/MS Analysis (<sup>1</sup>Astellas Pharma, Inc., <sup>2</sup>Astellas Research Technologies Co., Ltd.) °Fumio Osaki<sup>1</sup>, Masako Furutani<sup>1</sup>, Yoko Susaki<sup>1</sup>, Shigeyuki Terashita<sup>1</sup>, Toshio Teramura<sup>1</sup>, Miwa Hisamori<sup>1</sup>, Motonobu Sato<sup>1</sup>, Takeji Ohata<sup>1</sup>, Toshiko Aoki<sup>2</sup>, Takuya Sonoda<sup>2</sup>
- 1P-30** DBS Method Development to Completely Automated LC/MS/MS Analysis—The Use of SCAP for the Quantitative Bioanalysis of Drugs—(<sup>1</sup>Toray Researc Center, Inc., <sup>2</sup>AMR Inc.) °Souki Kanda<sup>1</sup>, Amane Sakurai<sup>1</sup>, Hiroshi Hike<sup>2</sup>
- 1P-31** High sensitive quantitative analysis of anti-inflammatory analgesics by tandem quadrupole mass spectrometer equipped with dual ion funnel technology (Agilent Technologies) °Yoshifumi Kogure
- 1P-32** Molecular Depth Profiling of the Multi-Layered Structure of Mouse Skin by TOF-SIMS (<sup>1</sup>ULVAC-PHI, <sup>2</sup>PHI-USA, <sup>3</sup>Keio Univ.) °Itsuko Ishizaki<sup>1</sup>, John S. Hammond<sup>2</sup>, Scott R. Bryan<sup>2</sup>, Akiharu Kubo<sup>3</sup>, Akira Yamamoto<sup>1</sup>
- 1P-33** Monitoring of Gap Junction by the Live Single-cell MS (<sup>1</sup>Biomed Sci., Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Takanori Harada<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 1P-34** One shot analysis of Glycosaminoglycans (<sup>1</sup>Shimane Univ. Biochem., <sup>2</sup>Shimane Univ. Center for Integ. Res., <sup>3</sup>Shimane Univ. Orthop. Serg.) °Harumi Osago<sup>1</sup>, Tomoko Shibata<sup>2</sup>, Suguru Kuwata<sup>3</sup>, Nobumasa Hara<sup>1</sup>, Kazuo Yamada<sup>1</sup>, Yuji Uchio<sup>3</sup>, Mikako Tsuchiya<sup>1</sup>
- 1P-35** A liquid matrix 3-AQ/CHCA for detection of O-glycosylation of MT1-MMP in MALDI-MS analysis (<sup>1</sup>Div. of Cancer Cell Res., Inst. of Med. Sci., Univ. of Tokyo, <sup>2</sup>Med. Proteo. Lab., Inst. of Med. Sci., Univ. of Tokyo, <sup>3</sup>Shimadzu Corp.) °Takuya Shuo<sup>1</sup>, Naohiko Koshikawa<sup>1</sup>, Daisuke Hoshino<sup>1</sup>, Tomoko Minegishi<sup>1</sup>, Hiroko Kondo<sup>2</sup>, Masaaki Oyama<sup>2</sup>, Sadanori Sekiya<sup>3</sup>, Shinichi Iwamoto<sup>3</sup>, Koichi Tanaka<sup>3</sup>, Motoharu Seiki<sup>1</sup>
- 1P-36** Automated glycopeptides analysis system with MALDI-DIT MS (<sup>1</sup>Shimadzu Corp., <sup>2</sup>FHCRC, <sup>3</sup>Ventana Medical Systems) °Sadanori Sekiya<sup>1</sup>, Masaki Murase<sup>1</sup>, Hidenori Takahashi<sup>1</sup>, Kentarou Morimoto<sup>1</sup>, Shigeki Kajihara<sup>1</sup>, Shinichi Iwamoto<sup>1</sup>, Koichi Tanaka<sup>1</sup>, Chee-Hong Wong<sup>2</sup>, Hong Wang<sup>2,3</sup>, Samir Hanash<sup>2</sup>
- 1P-37** Improvement of Measurement Efficiency for Time-of-Flight Mass Spectrometer Combined with Ion Attachment Method (Toho Univ.) °Kazunari Takaya, Yuri Deguchi, Masayuki Suzuki, Yasuhiro Sakai
- 1P-38** Characterization of polyether mixture by pseudo 2D liquid chromatogram integrated with two LC-MS data using different columns (<sup>1</sup>Kansai Univ., <sup>2</sup>Nippon Synth. Chem. Ind., <sup>3</sup>Nissan Chem. Ind., <sup>4</sup>The Univ. of Tokushima) °Hiroataka Hisatomi<sup>1</sup>, Yukari Nishimoto<sup>2</sup>, Tomoyuki Ozawa<sup>3</sup>, Hideya Kawasaki<sup>1</sup>, Koichi Ute<sup>4</sup>, Ryuichi Arakawa<sup>1</sup>
- 1P-39** Ionization in Nopolar Solvent with Using a Variety of Cation-Addition Reactions (<sup>1</sup>JST, <sup>2</sup>Tokyo Metro. Univ.) °Atsushi Takamizawa<sup>1,2</sup>, Naoto Niizuma<sup>2</sup>, Ryohei Sumii<sup>2</sup>, Takashi Korenaga<sup>2</sup>
- 1P-40** Highly sensitive MALDI analyses of glycopeptides using liquid matrices 3-AQ/CHCA and 3-AQ/CA (Shimadzu Corp.) Yuko Fukuyama, °Natsumi Funakoshi, Shinichi Iwamoto, Koichi Tanaka
- 1P-41** SALDI-MS Using Metal Oxides Nanoparticle (<sup>1</sup>Dai Nippon Toryo Co., Ltd., <sup>2</sup>Shimadzu Corp., <sup>3</sup>Kansai Univ.) °Yusuke Tamura<sup>1</sup>, Daigou Mizoguchi<sup>1</sup>, Masato Murouchi<sup>1</sup>, Makoto Gonda<sup>2</sup>, Hideya Kawasaki<sup>3</sup>, Ryuichi Arakawa<sup>3</sup>
- 1P-42** Electron-transfer-induced decomposition of dioxetane-based chemiluminescent compounds by the use of MALDI-TOF-MS (<sup>1</sup>Kanagawa Univ., <sup>2</sup>Shimadzu Corp.) °Hisako K. Ijuin<sup>1</sup>, Masaki Yamada<sup>2</sup>, Masatoshi Tanimura<sup>1</sup>, Mamoru Ohashi<sup>1</sup>, Nobuko Watanabe<sup>1</sup>, Masakatsu Matsumoto<sup>1</sup>
- 1P-43** Application of DART Mass Spectrometry on Exploring Forced Degradation Products of Active Pharmaceutical Ingredient in Drug Development Process (<sup>1</sup>Reno Osaka Univ., <sup>2</sup>ISIR Osaka Univ.) °Toshio Tashima<sup>1</sup>, Takeyuki Suzuki<sup>2</sup>, Kaori Asano<sup>2</sup>, Tsuyoshi Matsuzaki<sup>2</sup>
- 1P-44** Improvement in sensitivity and resolution of MALDI mass spectra by addition of metal salt (Osaka Univ.) °Akihiro Ito, Naoya Inazumi, Ken-ichi Iijima, Tomomi Hirai
- 1P-45** Fast polarity switching MRM analysis using triple

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quadrupole LC-MS/MS applied to benzodiazepines and their metabolites in clinical and forensic analysis (<sup>1</sup>Shimadzu, <sup>2</sup>Osaka Medical College, <sup>3</sup>Osaka Prefectural Police) Toshikazu Minohta<sup>1</sup>, Natsuyo Asano<sup>1</sup>, Kiyomi Arakawa<sup>1</sup>, °Jun Watanabe<sup>1</sup>, Junko Iida<sup>1</sup>, Hitoshi Tsuchihashi<sup>2</sup>, Kouichi Suzuki<sup>2</sup>, Kei Zaitu<sup>3</sup>, Noriaki Shima<sup>3</sup>, Munehiro Katagi<sup>3</sup>

- 1P-46 Simultaneous determination of perfluoro compounds containing precursors and intermediate metabolites using LC-APCI-MS (<sup>1</sup>Kansai Univ., <sup>2</sup>Hyogo Pref. Inst. of Env. Sci., <sup>3</sup>Kobe Univ., <sup>4</sup>Osaka Univ.) °Yoshinari Yamoto<sup>1</sup>, Syusuke Takemine<sup>2</sup>, Chisato Matsumura<sup>2</sup>, Motoharu Suzuki<sup>3</sup>, Hideya Kawasaki<sup>1</sup>, Takeshi Nakano<sup>4</sup>, Ryuichi Arakawa<sup>1</sup>
- 1P-47 Synthesis of <sup>13</sup>C<sub>6</sub>-dabsyl chloride and its application to quantitative analysis of biogenic amines (Shiga Univ. Med Sci.) °Tetsuo Ishida, Hiroyuki Tanaka, Kihachiro Horiike
- 1P-48 Field test of high-throughput walkthrough portal for detecting improvised explosive devices (IEDs) at an airport and train station (Hitachi, Ltd.) °Hisashi Nagano, Yohei Kawaguchi, Masuyuki Sugiyama, Yuichiro Hashimoto, Yasutaka Suzuki, Minoru Sakairi, Yasuaki Takada
- 1P-49 MALDI-Digital-Ion-Trap-TOFMS with Ion Trap Pass-through TOF Mode (Shimadzu Corp.) °Kei Kodera, Masafumi Jinno, Kiyoshi Watanabe, Makoto Hazama, Masaji Furuta, Sadanori Sekiya, Kaori Kinoshita, Hidenori Takahashi, Kosuke Hosoi, Toshinori Kobayashi, Shinichi Iwamoto, Koichi Tanaka
- 1P-50 Enhancing the Sensitivity of a Quadrupole Time-of-Flight Mass Spectrometer Using a Novel Conjoined Ion Guide (<sup>1</sup>Nihon Waters, <sup>2</sup>waters) °Futoshi Sato<sup>1</sup>, Kevin Giles<sup>2</sup>, Martin Green<sup>2</sup>, Jason Wildgoose<sup>2</sup>, Martin Palmer<sup>2</sup>
- 1P-51 Comparison of the peculiar shape of the fragment peak in the dissociation of excited CH<sub>3</sub>I with potential energy curves (<sup>1</sup>Osaka Pref. Univ., <sup>2</sup>Osaka Pref. Univ., <sup>3</sup>Osaka Pref. Univ.) °Shigeo Hayakawa<sup>1</sup>, Taiga Tsujinaka<sup>2</sup>, Akimasa Fujihara<sup>3</sup>



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Room A (Orbit Hall)

Oral Presentations

(9:00~10:00) Chair: Shingo Horimoto (Mitsubishi Tanabe Pharma Corp.)

2A-01-0900 High sensitive quantification for targeted compounds by benchtop quadrupole orbitrap MS "Q-Exactive" (ThermoFisher) °Kentaro Takahara, Yoko Yamagishi, Shigeru Sakamoto

2A-01-0920 ☆Development of highly sensitive and selective metabolic profiling system by gas chromatography/triple quadrupole mass spectrometry (°Osaka Univ., °Agilent Technologies Japan, Ltd.) °Yuki Tsujimoto<sup>1</sup>, Hiroshi Tsugawa<sup>1</sup>, Kuniyo Sugitate<sup>2</sup>, Norihiro Sakui<sup>2</sup>, Takeshi Bamba<sup>1</sup>, Eiichiro Fukusaki<sup>1</sup>

2A-01-0940 Separation and identification of Ca<sup>2+</sup>-binding calmodulin complexes with peptides using LC-FTMS (°Yokohama City Univ., °Kansai Univ., °Hokkaido Univ., °JAIST) °Issey Osaka<sup>1</sup>, Hiroki Fujimori<sup>2</sup>, Akiko Nakatomi<sup>3</sup>, Shin-ya Ohki<sup>4</sup>, Hideya Kawasaki<sup>2</sup>, Ryuichi Arakawa<sup>2</sup>

Poster Short Presentations

(10:15~10:50) Chair: Shingo Horimoto (Mitsubishi Tanabe Pharma Corp.)

2A-SP-1015 ☆Mass<sup>++</sup> 2.0.0: New version of freeware mass spectrometry analysis software (°Shimadzu Corp., °Eisai, °NAIST) °Howell Parry<sup>1</sup>, Satoshi Tanaka<sup>1</sup>, Tsuyoshi Tabata<sup>2</sup>, Ken Aoshima<sup>2</sup>, Yoshiya Oda<sup>2</sup>, Yoshito Nihei<sup>3</sup>, Takaaki Nishioka<sup>3</sup>, Shinichi Utsunomiya<sup>1</sup>, Shigeki Kajihara<sup>1</sup>, Koichi Tanaka<sup>1</sup>

2A-SP-1020 Efficient profiling of plant photoresponse metabolites by the Live Single-cell MS and look-up metabolic map software (°Hiroshima Univ., °QBiC RIKEN) °Takashi Fujii<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>

2A-SP-1025 ☆Sensitivity enhancement in LC-MS analysis of human cultured cell proteome and phosphoproteome by using meter-scale monolithic silica capillary columns (°Kyoto Univ., °GL Sciences) °Mio Iwasaki<sup>1</sup>, Masaki Wakabayashi<sup>1</sup>, Minoru Nakano<sup>1</sup>, Nobuo Tanaka<sup>2</sup>, Yasushi Ishihama<sup>1</sup>

2A-SP-1030 ☆Estimation and Optimization of the Peak Capacity of One-Dimensional Gradient HPLC Using a Long Monolithic Silica Capillary Column (°Eisai Co., Ltd., Pharmaceutical Science and Technology Core Function Unit, Global Formulation Japan, °Eisai Co., Ltd., Biomarkers and Personalized Medicine Core Function Unit, °Kyoto Univ., °Kyoto Institute of Technology, °GL Science) °Kanta Horie<sup>1</sup>, Yoshiaki Sato<sup>2</sup>, Takayuki Kimura<sup>2</sup>, Tatsuji Nakamura<sup>2</sup>, Yasushi Ishihama<sup>3</sup>, Yoshiya Oda<sup>2</sup>, Tohru Ikegami<sup>4</sup>, Nobuo Tanaka<sup>4,5</sup>

2A-SP-1035 ☆Metabolomics analysis of serum lysophosphatidylcholine (LPC) levels (°Kobe Pharm. Univ., °Kobe Univ., °Kobe Gakuin Univ.) °Nao Kawamura<sup>1</sup>, Chika Takashima<sup>1</sup>, Atsuko Takeuchi<sup>1</sup>, Akimori Wada<sup>1</sup>, Ichiro Morioka<sup>2</sup>, Masafumi Matsuo<sup>3</sup>

2A-SP-1040 ☆Exploration of neoplastic tumor marker by differential LC-MS (°Hiroshima Univ., Grad. Sch. Biomed. Sci., °Hiroshima Univ., N-BARD, °QBiC, RIKEN) °Yukina Hirai<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Eiso Hiyama<sup>2</sup>, Sachiko Date<sup>3</sup>, Tsutomu Masujima<sup>1,3</sup>

2A-SP-1045 ☆Development of oxidized phosphatidylcholines profiling method by supercritical fluid chromatography/tandem mass spectrometry (°Osaka Univ., °Kobe Univ.) °Takato Uchikata<sup>1</sup>, Atsuki Matsubara<sup>1</sup>, Shin Nishiumi<sup>2</sup>, Masakazu Shinohara<sup>2</sup>, Masaru Yoshida<sup>2</sup>, Eiichiro Fukusaki<sup>1</sup>, Takeshi Bamba<sup>1</sup>

Luncheon Seminar (Presented by K.K. AB SCIEX)

(12:10~13:10)

2A-L-1210 The roles and potential of mass spectrometry for biomarker research in drug discovery (Takeda Pharmaceutical) °Yoshinori Satomi

Oral Presentations

(14:20~15:20) Chair: Kentaro Yamaguchi (Tokushima Bunri Univ.)

2A-O2-1420 ☆Electron transfer dissociation of protonated disulfide linked polypeptides (°Osaka Pref. Univ., °Osaka Univ., °AIST, °Osaka MCHRI) °Shinya Matsumoto<sup>1</sup>, Akimasa Fujihara<sup>1</sup>, Shigeo Hayakawa<sup>1</sup>, Michisato Toyoda<sup>2</sup>, Yasushi Shigeri<sup>3</sup>, Yoshinori

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Wada<sup>4</sup>, Michiko Tajiri<sup>4</sup>

2A-O2-1440 Fragmentation Mechanisms of Phosphorylated Tetr peptide Ions in Collision-Induced Dissociations—The Suppression of Neutral Loss Using “On-Resonance” Pulsed Gas Introduction CID— (<sup>1</sup>Nara Women’s Univ., <sup>2</sup>Nara Women’s Univ., <sup>3</sup>Shimadzu Co., <sup>4</sup>AIST) Erika Sugahara<sup>1</sup>, Yuka Kurosaki<sup>2</sup>, Ayaka Takahashi<sup>1</sup>, Shigeki Kajihara<sup>3</sup>, Hiroko Morinaga<sup>3</sup>, Shinichi Iwamoto<sup>3</sup>, Koichi Tanaka<sup>3</sup>, Takae Takeuchi<sup>2, 4</sup>

2A-O2-1500 Peptide Cation Radicals by Electron-Ion Recombination (UW) °Frantisek Turecek, Christopher Moss, Thomas Chung

#### Plenary Lectures 2

(15:45~16:35) Chair: Mitsuo Takayama (Yokohama City Univ.)

2A-PL-1545 Fundamental Insights and Future Prospects on Ionization Methods (Univ. of Yamanashi) °Kenzo Hiraoka

#### Award Lectures

(16:35~17:55) Chair: Ryuichi Arakawa (Kansai Univ.)

2A-AW-1635 ☆Structural Study of Proteins and Peptides by using Mass Spectrometry (Science Education) °Kazuo Hirayama

2A-AW-1655 Development of Mass Spectrometry-Based Analytical Systems for Proteomics and Phosphoproteomics (<sup>1</sup>Kyoto Univ., <sup>2</sup>Keio Univ.) °Yasushi Ishihama<sup>1, 2</sup>

2A-AW-1715 Laser Desorption/Ionization Mass Spectrometry Using Functional Metal Nanoparticles (Kansai Univ.) °Hideya Kawasaki

2A-AW-1735 Direct Tissue Analysis Using Mass Spectrometry (Osaka Univ.) °Shuichi Shimma

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

#### Room B (Seiun 1)

##### Oral Presentations

(9:00~10:00) Chair: Shuichi Shimma (Osaka Univ.)

2B-O1-0900 ☆Development and Evaluation of New Stigmatic Mass Microscope with High Mass and Spatial Resolving Power Using Multi-Turn Time-of-Flight Mass Spectrometer (<sup>1</sup>Osaka Univ., <sup>2</sup>Osaka Univ., <sup>3</sup>GPI, <sup>4</sup>Osaka Institute of Technology, <sup>5</sup>JST) °Jun Aoki<sup>1, 5</sup>, Michisato Toyoda<sup>1, 5</sup>, Hisanao Hazama<sup>2, 5</sup>, Kunio Awazu<sup>2, 5</sup>, Kenichi Fuji<sup>4, 5</sup>, Yasuhide Naito<sup>3, 5</sup>

2B-O1-0920 ☆Multi-Omics Imaging by Mass Spectrometry (<sup>1</sup>Kyushu Univ., <sup>2</sup>Kyushu Univ., <sup>3</sup>Kyushu Univ.) Ayumi Yamaguchi<sup>1</sup>, °Daisuke Miura<sup>2</sup>, Yoshinori Fujimura<sup>2</sup>, Hiroyuki Wariishi<sup>2, 3</sup>

2B-O1-0940 ☆Observation of Tissue Sections Using a Laser Ionization Stigmatic Mass Microscope (<sup>1</sup>Grad. School Eng., Osaka Univ., <sup>2</sup>Grad. School Sci., Osaka Univ., <sup>3</sup>GPI, <sup>4</sup>JST, CREST) °Hisanao Hazama<sup>1, 4</sup>, Tomonori Hamanaka<sup>1</sup>, Jun Aoki<sup>2, 4</sup>, Michisato Toyoda<sup>2, 4</sup>, Yasuhide Naito<sup>3, 4</sup>, Kunio Awazu<sup>1, 4</sup>

##### Poster Short Presentations

(10:15~10:50) Chair: Shuichi Shimma (Osaka Univ.)

2B-SP-1015 ☆The suppression of oxygen adducts reaction of abietic acid in the ionization process by inorganic particles-assisted laser desorption/ionization (<sup>1</sup>SUNBOR, <sup>2</sup>Kansai Univ.) °Takehiro Watanabe<sup>1</sup>, Asuka Masumoto<sup>2</sup>, Hideya Kawasaki<sup>2</sup>, Ryuichi Arakawa<sup>2</sup>, Tohru Yamagaki<sup>1</sup>

2B-SP-1020 ☆Analysis of sugar chains by thin-layer chromatography desorption electrospray ionization mass spectrometry (TLC/DESI-MS) (<sup>1</sup>Kansai Univ., <sup>2</sup>Kansai Univ., <sup>3</sup>Osaka Univ., <sup>4</sup>Kansai Univ., <sup>5</sup>Kansai Univ.) °Sayuri Shide<sup>1</sup>, Tetuya Furuike<sup>2</sup>, Toshio Tashima<sup>3</sup>, Hideya Kawasaki<sup>4</sup>, Ryuichi Arakawa<sup>5</sup>

2B-SP-1025 ☆Improving Bioanalytical Selectivity in Differential Mobility Spectrometry—Mass Spectrometry Using Chemical Effects (AB SCIEX) °Ryoma Yamamoto, Shigeru Yamada

2B-SP-1030 ☆Highly sensitive analysis of glycopeptides using labeling technique by

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- MALDI-MS (Shimadzu Corp.) °Kenichi Taniguchi, Yuko Fukuyama, Yutaka Ibuki, Koichi Tanaka
- 2B-SP-1035 (2P-12) ☆Kinetic analysis of bilirubin glucuronidation by UDP-glucuronosyltransferase 1A1 (<sup>1</sup>Kobe Pharm. Univ., <sup>2</sup>Kobe Univ.) °Shoichi Ohmi<sup>1</sup>, Atsuko Takeuchi<sup>1</sup>, Akimori Wada<sup>1</sup>, Hisahide Nishio<sup>2</sup>
- 2B-SP-1040 (2P-13) ☆Development of Double Cylindrical Dielectric Barrier Discharge Ion Source Installed on the Orbitrap Exactive Mass Spectrometer (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi) °Md Ahsan Habib<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Satoshi Ninomiya<sup>2</sup>, Kenzo Hiraoka<sup>1</sup>
- 2B-SP-1045 (2P-14) ☆Live single cell MS searching for spatial molecular distribution in plant tissue (<sup>1</sup>Grad. Sch. Biomed. Sci., Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Atsushi Kurisu<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1, 2</sup>

proteomics Application of MALDI In-Source Decay *via* Hydrogen Abstraction (Yokohama City Univ.) °Daiki Asakawa, Mitsuo Takayama

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

#### Luncheon Seminar (Presented by Bruker Daltonics)

(12:10~13:10)

- 2B-L-1210 The introduction of Bruker Daltonics novel mass spectrometry (BDAL K.K.) Noriyuki Iwasaki, Jouji Seta, Haruo Hosoda, Kazunori Saito, Yumiko Matsuyama, Toshizi Kudoh, °Takashi Nirasawa

#### Oral Presentations

(14:20~15:40) Chair: Kenichi Iwamoto (Osaka Pref. Univ.)

- 2B-O2-1420 ☆Improvement of Ionization Efficiency for Spray Ionization Method Using Cationization in Non-polar Solvent (<sup>1</sup>Tokyo Metropolitan University, <sup>2</sup>Japan Science and Technology Agency) °Naoto Niizuma<sup>1</sup>, Atsushi Takamizawa<sup>1, 2</sup>, Takashi Korenaga<sup>1</sup>
- 2B-O2-1440 ☆Direct Analysis of Biomolecules by Probe Electrospray Ionization Mass Spectrometry (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi, <sup>3</sup>Univ. Yamanashi) °Mridul Kanti Mandal<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Kentaro Yoshimura<sup>3</sup>, Zhan Yu<sup>1</sup>, Sen Takeda<sup>3</sup>, Kenzo Hiraoka<sup>1</sup>
- 2B-O2-1500 ☆Mass Spectrometric Detection of Explosives by Ambient Sampling Chemical Ionization (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi) °Md Ahsan Habib<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Kenzo Hiraoka<sup>1</sup>
- 2B-O2-1520 ☆Fundamental Aspect and Phospho-

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Room C (Seiun 2)

#### Oral Presentations

(9:00~10:00) Chair: Shigeru Sakamoto (Thermo Fisher)

**2C-O1-0900** Chirality Detection of the 1:2 Metal/Phybox Complex Ion by ESIMS (<sup>1</sup>OMTRI, <sup>2</sup>Kansai Univ., <sup>3</sup>ISIR Osaka Univ.) °Hirofumi Sato<sup>1</sup>, Takashi Nakakoji<sup>2</sup>, Yoshitake Suzuki<sup>2</sup>, Yoshio Takai<sup>3</sup>, Hideya Kawasaki<sup>2</sup>, Ryuichi Arakawa<sup>2</sup>, Motohiro Shizuma<sup>1</sup>

**2C-O1-0920** ☆Chiral-Discriminating Ability of Chiral Tetradentate Ligand/Metal Complex-Ion toward Amino Acids Evaluated by ESIMS (<sup>1</sup>Kansai Univ., <sup>2</sup>OMTRI) °Takashi Nakakoji<sup>1</sup>, Hirofumi Sato<sup>2</sup>, Hideya Kawasaki<sup>1</sup>, Ryuichi Arakawa<sup>1</sup>, Motohiro Shizuma<sup>2</sup>

**2C-O1-0940** Determination of Stability Constants for Enantioselective Complexation in Matrix Using FAB Mass Spectrometry (<sup>1</sup>OMTRI, <sup>2</sup>Fac. of Science, Osaka Univ., <sup>3</sup>ISIR, Osaka Univ., <sup>4</sup>Eng. Sci., Osaka Univ., <sup>5</sup>Kansai Univ.) °Motohiro Shizuma<sup>1</sup>, Hiroshi Adachi<sup>2</sup>, Kaori Asano<sup>3</sup>, Tsuyoshi Matsuzaki<sup>3</sup>, Hirofumi Sato<sup>1</sup>, Takeyuki Suzuki<sup>3</sup>, Keiji Hirose<sup>4</sup>, Yoshito Tobe<sup>4</sup>, Hideya Kawasaki<sup>5</sup>, Ryuichi Arakawa<sup>5</sup>, Daisuke Ono<sup>1</sup>

#### Poster Short Presentations

(10:15~10:50) Chair: Shigeru Sakamoto (Thermo Fisher)

**2C-SP-1015** (2P-15) ☆The Formula Prediction and Identification of Peptide in Imaging Mass Spectrometry (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Keio Univ.) °Hiroko Morinaga<sup>1</sup>, Shigeki Kajihara<sup>1</sup>, Yumi Matsumoto<sup>1</sup>, Shinichi Yamaguchi<sup>1</sup>, Akiko Kubo<sup>2</sup>, Kiyoshi Ogawa<sup>1</sup>

**2C-SP-1020** (2P-16) ☆Vacuum Electrospray of Water Assisted by Laser Irradiation (<sup>1</sup>Univ. of Yamanashi Med. and Eng., <sup>2</sup>Univ. of Yamanashi CERC) °Satoshi Ninomiya<sup>1</sup>, Lee Chuan Chen<sup>1</sup>, Yuji Sakai<sup>2</sup>, Kenzo Hiraoka<sup>2</sup>

**2C-SP-1025** (2P-17) ☆Development of a multi-turn time-of-flight mass spectrometer with an atmospheric ionization (<sup>1</sup>Osaka Univ., <sup>2</sup>MSI TOKYO) °Masanobu Nakazono<sup>1</sup>, Hiroki Andoh<sup>1</sup>, Shinich Miki<sup>2</sup>, Michisato Toyoda<sup>1,2</sup>

**2C-SP-1030** (2P-18) ☆Direct Analysis of Fragment Ions of Angiotensin I Realized by the Mass-

Charge Separated Measurement Using Superconducting Tunnel Junction Detector (AIST) °Nobuyuki Zen, Masahiro Ukibe, Shigetomo Shiki, Masataka Ohkubo

**2C-SP-1035** (2P-19) ☆LC-MS separation and detection of plasma molecules (<sup>1</sup>Hiroshima Univ., Grad. Sch. Biomed. Sci., <sup>2</sup>QBiC, RIKEN) Haruka Omi<sup>1</sup>, Hideyuki Sumida<sup>1</sup>, °Tomonari Fujimura<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>

**2C-SP-1040** (2P-20) ☆SRM analysis and detection of Glial Fibrillary Acidic Protein in the Sera of Cattle with Bovine Spongiform Encephalopathy (<sup>1</sup>Meat Science Institute, <sup>2</sup>Rakuno Univ.) °Tomokazu Suzuki<sup>1</sup>, Emi Tanaka<sup>1</sup>, Naoyuki Maeda<sup>1,2</sup>, Taku Miyasyou<sup>2</sup>, Hiroshi Yokota<sup>2</sup>

**2C-SP-1045** (2P-21) ☆Structural analysis of silicone compound by TEOS resolution GC/MS method (Nipponkayaku Co., Ltd.) °Takahiro Hoshi, Sumio Ichimura, Kouichi Tsuchiya

#### Luncheon Seminar (Presented by JEOL Ltd.)

(12:10~13:10)

**2C-L-1210** Introduction of a new GC-QMS, JMS-Q1050GC and new applications of the JMS-S3000 "SpiralTOF" MALDI-TOFMS (JEOL) °Yoshiyuki Ito, Junichi Osuga

#### Oral Presentations

(14:20~15:20) Chair: Michisato Toyoda (Osaka Univ.)

**2C-O2-1420** ☆Observation of Ca Isotopes Using ICPMS-IT-LCS (Ion Trap Laser Cooling Spectroscopy) (Univ. of Tokyo) °Masanori Kitaoka, Yuta Yamamoto, Takuma Yoshida, Kyunghun Jung, Shuichi Hasegawa

**2C-O2-1440** ☆The effect of electrically charged clouds on the stable nitrogen isotope ratio and the anion concentrations in cloud-based aerosols (Tokyo Univ. of Agr. & Tech.) °Hidemitsu Katsura

**2C-O2-1500** Development of gas-phase NMR spectrometer for mass-selected ions (<sup>1</sup>Kobe Univ., <sup>2</sup>Osaka Pref. Univ.) °Kiyokazu Fuke<sup>1</sup>, Masahide Tona<sup>1</sup>, Akimasa Fujihara<sup>2</sup>, Makoto Sakurai<sup>1</sup>, Haruki Ishikawa<sup>1</sup>

The mark "☆" shows that the presenting author applied to the "Best Presentation Award".

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Poster Room (Gekko)

Core time (Odd numbers): 11:00~12:00

Core time (Even numbers): 13:15~14:15

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

2P-01 ☆Mass<sup>++</sup> 2.0.0: New version of freeware mass spectrometry analysis software (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Eisai, <sup>3</sup>NAIST) °Howell Parry<sup>1</sup>, Satoshi Tanaka<sup>1</sup>, Tsuyoshi Tabata<sup>2</sup>, Ken Aoshima<sup>2</sup>, Yoshiya Oda<sup>2</sup>, Yoshito Nihei<sup>3</sup>, Takaaki Nishioka<sup>3</sup>, Shinichi Utsunomiya<sup>1</sup>, Shigeki Kajihara<sup>1</sup>, Koichi Tanaka<sup>1</sup>

2P-02 ☆Efficient profiling of plant photoresponse metabolites by the Live Single-cell MS and look-up metabolic map software (<sup>1</sup>Hiroshima Univ., <sup>2</sup>QBiC RIKEN) °Takashi Fujii<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>

2P-03 ☆Sensitivity enhancement in LC-MS analysis of human cultured cell proteome and phosphoproteome by using meter-scale monolithic silica capillary columns (<sup>1</sup>Kyoto Univ., <sup>2</sup>GL Sciences) °Mio Iwasaki<sup>1</sup>, Masaki Wakabayashi<sup>1</sup>, Minoru Nakano<sup>1</sup>, Nobuo Tanaka<sup>2</sup>, Yasushi Ishihama<sup>1</sup>

2P-04 ☆Estimation and Optimization of the Peak Capacity of One-Dimensional Gradient HPLC Using a Long Monolithic Silica Capillary Column (<sup>1</sup>Eisai Co., Ltd., Pharmaceutical Science and Technology Core Function Unit, Global Formulation Japan, <sup>2</sup>Eisai Co., Ltd., Biomarkers and Personalized Medicine Core Function Unit, <sup>3</sup>Kyoto Univ., <sup>4</sup>Kyoto Institute of Technology, <sup>5</sup>GL Science) °Kanta Horie<sup>1</sup>, Yoshiaki Sato<sup>2</sup>, Takayuki Kimura<sup>2</sup>, Tatsuji Nakamura<sup>2</sup>, Yasushi Ishihama<sup>3</sup>, Yoshiya Oda<sup>2</sup>, Tohru Ikegami<sup>4</sup>, Nobuo Tanaka<sup>4,5</sup>

2P-05 ☆Metabolomics analysis of serum lysophosphatidylcholine (LPC) levels (<sup>1</sup>Kobe Pharm. Univ., <sup>2</sup>Kobe Univ., <sup>3</sup>Kobe Gakuin Univ.) °Nao Kawamura<sup>1</sup>, Chika Takashima<sup>1</sup>, Atsuko Takeuchi<sup>1</sup>, Akimori Wada<sup>1</sup>, Ichiro Morioka<sup>2</sup>, Masafumi Matsuo<sup>3</sup>

2P-06 ☆Exploration of neoplastic tumor marker by Differential LC-MS (<sup>1</sup>Hiroshima Univ., Grad.Sch. Biomed.Sci., <sup>2</sup>Hiroshima Univ., N-BARD, <sup>3</sup>QBiC, RIKEN) °Yukina Hirai<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Eiso Hiyama<sup>2</sup>, Sachiko Date<sup>3</sup>, Tsutomu Masujima<sup>1,3</sup>

2P-07 ☆Development of oxidized phosphatidylcholines

profiling method by supercritical fluid chromatography/tandem mass spectrometry (<sup>1</sup>Osaka Univ., <sup>2</sup>Kobe Univ.) °Takato Uchikata<sup>1</sup>, Atsuki Matsubara<sup>1</sup>, Shin Nishiumi<sup>2</sup>, Masakazu Shinohara<sup>2</sup>, Masaru Yoshida<sup>2</sup>, Eiichiro Fukusaki<sup>1</sup>, Takeshi Bamba<sup>1</sup>

2P-08 ☆The suppression of oxygen adducts reaction of abietic acid in the ionization process by inorganic particles-assisted laser desorption/ionization. (<sup>1</sup>SUNBOR, <sup>2</sup>Kansai Univ.) °Takehiro Watanabe<sup>1</sup>, Asuka Masumoto<sup>2</sup>, Hideya Kawasaki<sup>2</sup>, Ryuichi Arakawa<sup>2</sup>, Tohru Yamagaki<sup>1</sup>

2P-09 ☆Analysis of sugar chains by thin-layer chromatography desorption electrospray ionization mass spectrometry (TLC/DESI-MS) (<sup>1</sup>Kansai Univ., <sup>2</sup>Kansai Univ., <sup>3</sup>Osaka Univ., <sup>4</sup>Kansai Univ., <sup>5</sup>Kansai Univ.) °Sayuri Shide<sup>1</sup>, Tetuya Furuike<sup>2</sup>, Toshio Tashima<sup>3</sup>, Hideya Kawasaki<sup>4</sup>, Ryuichi Arakawa<sup>5</sup>

2P-10 ☆Improving Bioanalytical Selectivity in Differential Mobility Spectrometry—Mass Spectrometry Using Chemical Effects (AB SCIEX) °Ryoma Yamamoto, Shigeru Yamada

2P-11 ☆Highly sensitive analysis of glycopeptides using labeling technique by MALDI-MS (Shimadzu Corp.) °Kenichi Taniguchi, Yuko Fukuyama, Yutaka Ibuki, Koichi Tanaka

2P-12 ☆Kinetic analysis of bilirubin glucuronidation by UDP-glucuronosyltransferase 1A1 (<sup>1</sup>Kobe Pharm. Univ., <sup>2</sup>Kobe Univ.) °Shoichi Ohmi<sup>1</sup>, Atsuko Takeuchi<sup>1</sup>, Akimori Wada<sup>1</sup>, Hisahide Nishio<sup>2</sup>

2P-13 ☆Development of Double Cylindrical Dielectric Barrier Discharge Ion Source Installed on the Orbitrap Exactive Mass Spectrometer (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi) °Md Ahsan Habib<sup>1</sup>, Lee Chuin Chen<sup>2</sup>, Satoshi Ninomiya<sup>2</sup>, Kenzo Hiraoka<sup>1</sup>

2P-14 ☆Live single cell MS searching for spatial molecular distribution in plant tissue (<sup>1</sup>Grad. Sch. Biomed. Sci., Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Atsushi Kurisu<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>

2P-15 ☆The Formula Prediction and Identification of Peptide in Imaging Mass Spectrometry (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Keio Univ.) °Hiroko Morinaga<sup>1</sup>, Shigeki Kajihara<sup>1</sup>, Yumi Matsumoto<sup>1</sup>, Shinichi Yamaguchi<sup>1</sup>, Akiko Kubo<sup>2</sup>, Kiyoshi Ogawa<sup>1</sup>

2P-16 ☆Vacuum Electrospray of Water Assisted by Laser Irradiation (<sup>1</sup>Univ. of Yamanashi Med. and Eng., <sup>2</sup>Univ. of Yamanashi CERC) °Satoshi Ninomiya<sup>1</sup>, Lee Chuin Chen<sup>1</sup>, Yuji Sakai<sup>2</sup>, Kenzo

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- Hiraoka<sup>2</sup>
- 2P-17 ☆Development of a multi-turn time-of-flight mass spectrometer with an atmospheric ionization (<sup>1</sup>Osaka Univ., <sup>2</sup>MSI TOKYO) °Masanobu Nakazono<sup>1</sup>, Hiroki Andoh<sup>1</sup>, Shinich Miki<sup>2</sup>, Michisato Toyoda<sup>1,2</sup>
- 2P-18 ☆Direct Analysis of Fragment Ions of Angiotensin I Realized by the Mass-Charge Separated Measurement Using Superconducting Tunnel Junction Detector (AIST) °Nobuyuki Zen, Masahiro Ukibe, Shigetomo Shiki, Masataka Ohkubo
- 2P-19 ☆LC-MS separation and detection of plasma molecules (<sup>1</sup>Hiroshima Univ., Grad.Sch.Biomed. Sci., <sup>2</sup>QBiC, RIKEN) Haruka Omi<sup>1</sup>, Hideyuki Sumida<sup>1</sup>, °Tomonari Fujimura<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 2P-20 ☆SSRM analysis and detection of Glial Fibrillary Acidic Protein in the Sera of Cattle with Bovine Spongiform Encephalopathy (<sup>1</sup>Meat Science Institute, <sup>2</sup>Rakuno Univ.) °Tomokazu Suzuki<sup>1</sup>, Emi Tanaka<sup>1</sup>, Naoyuki Maeda<sup>1,2</sup>, Taku Miyasyou<sup>2</sup>, Hiroshi Yokota<sup>2</sup>
- 2P-21 ☆Structural analysis of silicone compound by TEOS resolution GC/MS method (Nipponkayaku Co., Ltd.) °Takahiro Hoshi, Sumio Ichimura, Kouichi Tsuchiya
- 2P-22 Multivariate analysis using MS background subtraction (<sup>1</sup>Reifycs Inc., <sup>2</sup>Shimadzu Corporation) °Mitsuhiro Kanazawa<sup>1</sup>, Atsushi Ogiwara<sup>1</sup>, Hisae Anyoji<sup>1</sup>, Jun Watanabe<sup>2</sup>, Junko Iida<sup>2</sup>
- 2P-23 Establishment of easy method to prevent carry-over of peptides in Nano LC-MS (Chugai Pharmaceutical Co., Ltd.) °Takashi Shinkawa, Kohji Nagano, Nami Yabuki, Kuniyasu Kato, Noriyuki Inomata, Masayuki Haramura
- 2P-24 Development of novel MS probes for high-sensitivity proteomics (Shimadzu Corp.) °Takashi Shimada, Taka-Aki Sato, Koichi Tanaka
- 2P-25 Amino acid analysis utilizing isotope-dilution and development of C-peptide certified reference material (<sup>1</sup>AIST, <sup>2</sup>TMD) °Tomoya Kinumi<sup>1</sup>, Mari Goto<sup>1</sup>, Megumi Kato<sup>1</sup>, Takeshi Kasama<sup>2</sup>, Akiko Takatsu<sup>1</sup>
- 2P-26 Analysis of modified amyloid beta peptide (<sup>1</sup>Asahikawa Medical Univ., <sup>2</sup>Asahikawa Medical Univ.) °Hiroaki Akutsu<sup>1</sup>, Naomi Tsumura<sup>2</sup>, Masao Nakamura<sup>2</sup>
- 2P-27 Establishment of comprehensive quantitative proteomics of epithelial cell membrane transporters by mass spectrometric analysis (Osaka Univ.) °Kazuaki Takafuji, Takashi Nishiyama, Shushi Nagamori, Yoshikatsu Kanai
- 2P-28 Direct analysis of lipid molecular species in localized areas from tissue thin sections by liquid extraction surface analysis (LESA) with nano-ESI (<sup>1</sup>Chubu Univ., <sup>2</sup>Keio Univ., <sup>3</sup>NIHS) Miho Goto<sup>1</sup>, Yoshiki Mizuno<sup>1</sup>, Akinori Mizuno<sup>1</sup>, Kazutaka Ikeda<sup>2</sup>, Yoko Tajima<sup>3</sup>, °Ryo Taguchi<sup>1,2,3</sup>
- 2P-29 Development of useful software to search for drug metabolites (<sup>1</sup>Astellas Pharma Inc., <sup>2</sup>Shiseido Irica Technology Inc.) °Yoko Susaki<sup>1</sup>, Tsuneaki Kaneko<sup>2</sup>, Kohichiro Tanaka<sup>1</sup>, Kazuyoshi Nozaki<sup>1</sup>, Shigeyuki Terashita<sup>1</sup>, Toshio Teramura<sup>1</sup>
- 2P-30 Novel Tools for Automated Metabolite Identification, Biotransformation Localization and Quantitation Using UPLC-QTOF MSE (<sup>1</sup>Waters, <sup>2</sup>Waters, <sup>3</sup>Waters) °Motoji Oshikata<sup>1</sup>, Stephen McDonald<sup>2</sup>, Mark Wrona<sup>2</sup>, Jeff Goshawk<sup>3</sup>, Alan Millar<sup>2</sup>, Noriko Kato<sup>1</sup>, Yukari Haramaki<sup>1</sup>
- 2P-31 Analysis of drugs in biological samples using online SPE-LC/MS/MS (Jasco Int.) Noriko Kagi, °Hideto Kakimi
- 2P-32 Ultrahigh Spectral Resolution in Drug Imaging-MS (<sup>1</sup>Bruker Daltonics K.K., <sup>2</sup>Kyoto Prefectural Univ. of Med.) °Takashi Nirasawa<sup>1</sup>, Kazunori Saito<sup>1</sup>, Masaya Ikegawa<sup>2</sup>
- 2P-33 Imaging mass spectrometry of the additive ingredient of the films using Pt nanoparticles (Kansai Univ.) °Tetsuro Higashiisokawa, Hideya Kawasaki, Ryuichi Arakawa
- 2P-34 MALDI MS analysis of *N*-glycan structures of a cell adhesion molecule, CADMI (<sup>1</sup>Div. of Mol. Pathol., Inst. of Med. Sci., Univ. of Tokyo, <sup>2</sup>Med. Proteo. Lab., Inst. of Med. Sci., Univ. of Tokyo, <sup>3</sup>Shimadzu Corp.) °Mika Sakurai-Yageta<sup>1</sup>, Tomoko Maruyama<sup>1</sup>, Megumi Ishimura<sup>1</sup>, Azusa Yanagawa<sup>1</sup>, Masaaki Oyama<sup>2</sup>, Hiroko Kondo<sup>2</sup>, Sadanori Sekiya<sup>3</sup>, Shinichi Iwamoto<sup>3</sup>, Koichi Tanaka<sup>3</sup>, Yoshinori Murakami<sup>1</sup>
- 2P-35 Understanding characteristics of zwitterionic HILIC columns for improved LC/MS methods of polar compounds. (<sup>1</sup>Merck SeQuant, <sup>2</sup>Umea Univ.) °Tobias Jonsson<sup>1</sup>, Ngoc Phuoc Dinh<sup>1,2</sup>, Wen Jiang<sup>1</sup>, Petrus Hemstrom<sup>1</sup>, Patrik Appelblad<sup>1</sup>, Knut Irgum<sup>2</sup>
- 2P-36 Shotgun proteomics using monolithic 2 meter long nanoLC-MS/MS (<sup>1</sup>Astellas Pharma Inc., <sup>2</sup>GL Science Inc.) °Masashi Hiramoto<sup>1</sup>, Satoru Ujihara<sup>1</sup>, Masatoshi Yuri<sup>1</sup>, Masamichi Yuda<sup>1</sup>, Toshio Teramura<sup>1</sup>, Masanori Motokawa<sup>2</sup>, Nobuo Tanaka<sup>2</sup>

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- 2P-37 Clusters in azeotropic mixtures of acetonitrile-water and acetonitrile-ethanol studied by liquid-ionization MS/MS. (<sup>1</sup>Yokohama Nat. Univ., <sup>2</sup>Yamanashi Univ) °Masahiko Tsuchiya<sup>1</sup>, Yasuo Shida<sup>2</sup>
- 2P-38 Development of Thin Layer Chromatography-Atmospheric Pressure Ionizations/Mass Spectrometer (TLC-API/MS) (Kanagawa Univ.) °Yoshiyuki Mochida
- 2P-39 Importance of Water in Surface-Assisted Laser Desorption/Ionization Mass Spectrometry (Yokohama City Univ.) °Shohey Moriguchi, Mitsuo Takayama
- 2P-40 Highly sensitive MALDI analyses of hydrophobic peptides using a novel additive ADHB with conventional matrices (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Hiroshima Univ.) Yuko Fukuyama<sup>1</sup>, °Ritsuko Tanimura<sup>1</sup>, Shunsuke Izumi<sup>2</sup>, Shinichi Iwamoto<sup>1</sup>, Koichi Tanaka<sup>1</sup>
- 2P-41 Human Serum Albumin-Modified Fe<sub>3</sub>O<sub>4</sub> Nanoparticles for Affinity SALDI-MS *via* the Protein-Drug Interactions (Kansai Univ.) °Yuichi Iwaki, Hideya Kawasaki, Ryuichi Arakawa
- 2P-42 A Workflow for Metabolic Profiling and Elemental Composition Determination Using FT-ICR MS (<sup>1</sup>Bruker, <sup>2</sup>Kyushu Univ., <sup>3</sup>Kyushu Univ.) °Kazunori Saito<sup>1</sup>, Tatsuhiko Nagao<sup>2</sup>, Daisuke Miura<sup>3</sup>, Takashi Nirasawa<sup>1</sup>, Hiroyuki Wariishi<sup>2,3</sup>
- 2P-43 A comparative study of electrolytes in Li-ion batteries and structural elucidation of electrolyte additives (AB SCIEX) °Kaoru Karasawa
- 2P-44 New Chiral Stationary Phase Screening the Fast Atom Bombardment Mass Spectrometry Coupling with Enantiomer-Labeled Guest Method (<sup>1</sup>OMTRI, <sup>2</sup>Osaka Inst. Tech., <sup>3</sup>ISIR, Osaka Univ.) °Motohiro Shizuma<sup>1</sup>, Yoshiki Akasegawa<sup>2</sup>, Hirofumi Sato<sup>1</sup>, Kaori Asano<sup>3</sup>, Tsuyoshi Matsuzaki<sup>3</sup>, Osamu Shimomura<sup>2</sup>, Ryoki Nomura<sup>2</sup>, Takeyuki Suzuki<sup>3</sup>, Daisuke Ono<sup>1</sup>
- 2P-45 The High resolution and accurate LC-MS/MS and Software Tools for Non-targeted Screening for Food (K.K. AB SCIEX) °Kayako Suga, Yuriko Ozeki, Sumie Ando
- 2P-46 The target and non-target screening analyses of sulfa and quinolone drugs spiked in milk by using a benchtop FTMS LC-Orbitrap-MS (Thermo Fisher) °Tomoko Hamasaka, Yoko Yamagishi, Shigeru Sakamoto
- 2P-47 Characterization of fragrance derived from hop in beer using GC×GC TOFMS (<sup>1</sup>Suntory Liquors Ltd., <sup>2</sup>LECO Japan Corp.) Takako Inui<sup>1</sup>, Mariko Ishimaru<sup>1</sup>, °Fumihiko Tsuchiya<sup>2</sup>, Kaneo Oka<sup>1</sup>
- 2P-48 Development of fast scanning technologies for a triple quadrupole mass spectrometer (Shimadzu Corp.) °Daisuke Okumura, Shiro Mizutai, Hiroto Itoi
- 2P-49 A study of morphogen regulating the cleavage-stage of sea urchin by using direct single-cell molecular analysis (Hiroshima Univ.) °Kazuki Maeda, Takashi Yamamoto, Naoaki Sakamoto, Shunsuke Izumi
- 2P-50 Simulation of ion trajectories in a linear ion trap with plate electrodes inserted between rod electrodes (Osaka Univ) °Takahiro Kida, Daisuke Nakashima, Singo Ebata, Morio Ishihara
- 2P-51 Ion-molecule reaction of isomers of hydroxybenzoic acid with atmospheric negative ions (Yokohama City Univ.) °Rena Gonda, Kanako Sekimoto, Mitsuo Takayama
- 2P-52 Fundamental study of ambient ion-molecule reactions (Yokohama City Univ.) °Yuriho Nagasaki, Kanako Sekimoto, Mitsuo Takayama

Thursday, September 15

Room A (Orbit Hall)

Oral Presentations

(9:00~10:00) Chair: Yoshihiko Takinami (Shionogi & Co., Ltd.)

- 3A-O1-0900 ☆Development of a novel data processing system for non-targeted gas chromatography/mass spectrometry-based metabolomics study (<sup>1</sup>Osaka Univ., <sup>2</sup>Tokyo Univ.) °Hiroshi Tsugawa<sup>1</sup>, Yuki Tsujimoto<sup>1</sup>, Naoki Kawase<sup>1</sup>, Masanori Arita<sup>2</sup>, Takeshi Bamba<sup>1</sup>, Eiichiro Fukusaki<sup>1</sup>
- 3A-O1-0920 ☆A Novel Method for Metabolite Correlation Analysis Exploiting High-throughput Mass Spectrometric Technique for Metabolite Analysis Based on MALDI-MS (<sup>1</sup>Biores. Bioenv. Sci., Kyushu Univ., <sup>2</sup>ICMRN, Kyushu Univ., <sup>3</sup>Bioarc., Kyushu Univ., <sup>4</sup>Fac. of Agric., Kyushu Univ.) °Daichi Yukihira<sup>1</sup>, Daisuke Miura<sup>2</sup>, Hiroyuki Wariishi<sup>2,3,4</sup>
- 3A-O1-0940 Higher quality and number of large scale proteome by bench top quadrupole orbitrap MS, Q Exactive. (Thermo Fischehr) °Daisuke Higo, Meiyang Han, Yoko Yamagishi, Shigeru Sakamoto

Poster Short Presentations

(10:15~10:50) Chair: Yoshihiko Takinami (Shionogi & Co., Ltd.)

- 3A-SP-1015 ☆Evaluation of a novel database search algorithm using MS<sup>n</sup> spectra (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Eisai) °Kentarō Morimoto<sup>1</sup>, Masaki Murase<sup>1</sup>, Tsuyoshi Tabata<sup>2</sup>, Shigeki Kajihara<sup>1</sup>, Ken Aoshima<sup>2</sup>, Yoshiya Oda<sup>2</sup>, Koichi Tanaka<sup>1</sup>
- 3A-SP-1020 ☆Development of Algorithm Enabling Data-driven Determination of Elemental Composition Based on Isotopic Peak Ratio Observed by Ultrahigh-resolution FT-ICR-MS (<sup>1</sup>Biores. Bioenv. Sci., Kyushu Univ., <sup>2</sup>ICMRN, Kyushu Univ., <sup>3</sup>Bioarc., Kyushu Univ., <sup>4</sup>Fac. of Agric., Kyushu Univ.) °Tatsuhiko Nagao<sup>1</sup>, Daichi Yukihira<sup>1</sup>, Yoshinori Fujimura<sup>2</sup>, Daisuke Miura<sup>2</sup>, Hiroyuki Wariishi<sup>2,3,4</sup>
- 3A-SP-1025 ☆N-Terminal selective derivatization with a 4-aminodiphenyl group to improve peptide fragmentation (Kyoto Univ.) °Toru Yoshikawa, Masahiro Miyashita, Hisashi Miyagawa

- 3A-SP-1030 ☆Spatio-temporal Molecular Distribution in a Developing Frog (*Xenopus*) Egg by LC-MS (<sup>1</sup>Grad. Sch. Biomed. Sci., Hiroshima Univ., <sup>2</sup>Grad.Sch.Sci., Hiroshima Univ., <sup>3</sup>QBiC, RIKEN) °Siyu Zhang<sup>1</sup>, Atsushi Kurisu<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Atsushi Suzuki<sup>2</sup>, Kimiko Takebayashi-Suzuki<sup>2</sup>, Sachiko Date<sup>3</sup>, Tsutomu Masujima<sup>1,3</sup>
- 3A-SP-1035 ☆Protein C-terminome analysis of *in vivo* protease cleavage products—Its application for Biomarker Discovery— (<sup>1</sup>Osaka Univ., <sup>2</sup>Miyazaki Univ.) °Seiji Iguchi<sup>1</sup>, Koichi Imai<sup>2</sup>, Nobuhiro Matsumoto<sup>2</sup>, Masamitsu Nakazato<sup>2</sup>, Toshifumi Takao<sup>1</sup>
- 3A-SP-1040 ☆Structural analysis of triacylglycerols using MALDI-TOF-TOF tandem MS with high precursor-ion selectivity (JEOL) °Ayumi Kubo, Masahiro Hashimoto, Yoshiyuki Itoh, Jun Onodera
- 3A-SP-1045 ☆Live single-cell MS for monitoring specific molecules in phospholipidotic cells (<sup>1</sup>Hiroshima Univ., Grad.Sch.Biomed.Sci., <sup>2</sup>QBiC, RIKEN) °Kiyoshi Takeshima<sup>1</sup>, Sachiko Date<sup>2</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tuyama<sup>1</sup>, Tsutomu Masujima<sup>1,2</sup>

Luncheon Seminars (Presented by Thermo Fisher Scientific K.K.)

(12:10~13:10)

- 3A-L-1210 Introduction of new products: (1) Bench-top Quadrupole Orbitrap MS 'Q Exactive' and (2) High-Field Hybrid Orbitrap MS 'Orbitrap Elite' (Thermo Fisher) °Shigeru Sakamoto

Plenary Lectures 3 "Joint program with the Japanese Society for Biomedical Mass Spectrometry (JSBMS)"

(14:20~15:05) Chair: Ikuya Yano (Japan BCG Laboratory)

- 3A-PL-1420 Pathogenesis and therapeutic approaches in systemic amyloidosis (Shinshu Univ.) °Shuichi Ikeda

Plenary Lectures 4 "Joint program with the Japanese Society for Biomedical Mass Spectrometry (JSBMS)"

(15:05~15:50) Chair: Toshifumi Takao (Osaka Univ.)

- 3A-PL-1505 Past and future trends of biomedical applications: Measuring quality or quantity



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(Osaka MCHRI) °Yoshinao Wada

Plenary Lectures 5 “Joint program with the Japanese Society for Biomedical Mass Spectrometry (JSBMS)”

(16:10~16:55) Chair: Toyofumi Nakanishi (Osaka Medical College)

**3A-PL-1610** Imaging Mass Spectrometry: Current Performances and Upcoming Challenges (Univ. of Montreal) °Pierre Chaurand

Plenary Lectures 6 “Joint program with the Japanese Society for Biomedical Mass Spectrometry (JSBMS)”

(16:55~17:40) Chair: Shigeo Hayakawa (Osaka Pref. Univ.)

**3A-PL-1655** Tandem Mass Spectrometry in Clinical Enzymology: Towards Newborn Screening of Lysosomal Storage Disorders (UW) °Frantisek Turecek, Michael Gelb, C. Ronald Scott

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

Room B (Izumi)

Oral Presentations

(9:00~10:00) Chair: Shinji Nonose (Yokohama City Univ.)

**3B-O1-0900** Analysis of different conformaers of carbonic anhydrase 2 in solution using ion mobility coupled with electrospray ionization (<sup>1</sup>Yokohama City Univ., <sup>2</sup>Yokohama City Univ., <sup>3</sup>Nihon Waters, <sup>4</sup>Nihon Waters) °Mitsuo Takayama<sup>1</sup>, Yoshiaki Nabuchi<sup>2</sup>, Kenji Hirose<sup>3</sup>, Motoji Oshikata<sup>4</sup>

**3B-O1-0920** ☆Ion mobility MS of glycopeptides from the Fc regions of different IgG subclasses (<sup>1</sup>Osaka MCHRI, <sup>2</sup>Nihon Waters, <sup>3</sup>Nara Women’s Univ.) °Michiko Tajiri<sup>1</sup>, Kenji Hirose<sup>2</sup>, Takae Takeuchi<sup>3</sup>, Yoshinao Wada<sup>1</sup>

**3B-O1-0940** Characterization of cyclic small molecules by energy-resolved ion mobility mass spectrometry (RIKEN) °Yayoi Hongo, Yuko Izuchi, Syunya Takahashi, Take-michi Nakamura

Poster Short Presentations

(10:15~10:50) Chair: Shinji Nonose (Yokohama City Univ.)

**3B-SP-1015 (3P-08)** ☆Rapid Screening of Renal Cell Carcinoma (RCC) by Probe Electrospray Ionization Mass Spectrometry (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi, <sup>3</sup>Univ. Yamanashi) °Mridul Kanti Mandal<sup>1</sup>, Kentaro Yoshimura<sup>3</sup>, Lee Chuin Chen<sup>2</sup>, Zhan Yu<sup>1</sup>, Sen Takeda<sup>3</sup>, Kenzo Hiraoka<sup>1</sup>

**3B-SP-1020 (3P-09)** ☆Effect of Small Matrix Molecules in Nano ESI (<sup>1</sup>Hiroshima Univ., Grad.Sch.Biomed. Sci., <sup>2</sup>QBiC) °Megumi Wakimoto<sup>1</sup>, Yui Okamura<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>

**3B-SP-1025 (3P-10)** ☆Improving Bioanalytical Selectivity in Differential Mobility Spectrometry—Mass Spectrometry Using Chemical Effects (AB SCIEX) °Shigeru Yamada, Ryoma Yamamoto

**3B-SP-1030 (3P-11)** ☆A New Approach for Finding Sweet Spots of Glycopeptides by Distinction of Polymorphism of Matrix Crystal in Matrix-Assisted Laser Desorption/Ionization (The Noguchi Institute) °Hisako Okumura, Takashi Nishikaze, Hiroshi Jinmei, Junko Amano

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- 3B-SP-1035 ☆MALDI MS metabolite profiling by using nanoparticles of metal oxides and allotropes of carbon (<sup>1</sup>Ehime Univ., <sup>2</sup>Univ. of Buenos Aires, <sup>3</sup>Ehime Univ.) °Yousef Gholipour<sup>1</sup>, Rosa Erra-Balsells<sup>2</sup>, Hiroshi Nonami<sup>3</sup>
- 3B-SP-1040 ☆Direct Single Cell Analysis of Intracellular Drug Metabolism in a Primary Hepatocyte (<sup>1</sup>QBiC, RIKEN, <sup>2</sup>Hiroshima Univ., <sup>3</sup>ITO-EN, Ltd.) °Sachiko Date<sup>1</sup>, Hajime Mizuno<sup>2</sup>, Naohiro Tsuyama<sup>2</sup>, Takanori Harada<sup>2</sup>, Iwao Sakane<sup>3</sup>, Tsutomu Masujima<sup>1,2</sup>
- 3B-SP-1045 ☆Construction of metabolic profiling method for carotenoid derivatives using supercritical fluid chromatography coupled with tandem mass spectrometry (<sup>1</sup>Osaka Univ., <sup>2</sup>Kobe Univ.) °Atsuki Matsubara<sup>1</sup>, Takato Uchikata<sup>1</sup>, Masakazu Shinohara<sup>2</sup>, Masaru Yoshida<sup>2</sup>, Eiichiro Fukusaki<sup>1</sup>, Takeshi Bamba<sup>1</sup>

Luncheon Seminars (Presented by Nihon Waters K.K.)  
(12:10~13:10)

- 3B-L-1210 Unified System Accelerating Advanced Research—The Fusion of High Definition, High Sensitivity and Informatics (Nihon Waters) °Futoshi Sato

The mark “☆” shows that the presenting author applied to the “Best Presentation Award”.

Room C (Ginga)

#### Oral Presentations

(9:00~10:00) Chair: Tomoya Kinumi (AIST)

- 3C-O1-0900 Development of Explosives Trace Detection System Using Cyclone-Type Particle Concentrator (Hitachi, Ltd.) °Yuichiro Hashimoto, Hisashi Nagano, Yasuaki Takada, Yasutaka Suzuki, Hideo Kashima, Masakazu Sugaya, Yasunori Doi, Koichi Terada, Minoru Sakairi
- 3C-O1-0920 ☆Qualitative Analysis of Volatile Metabolites Emitted by *Aspergillus nidulans* Using Ion Mobility Spectrometry and Mass Spectrometry (<sup>1</sup>Nara Women's Univ., <sup>2</sup>Nara Women's Univ., <sup>3</sup>Toho Univ., <sup>4</sup>AIST) °Shoko Ichii<sup>1</sup>, Toshiki Sugai<sup>3</sup>, Tomoko Kimura<sup>2</sup>, Haruna Tanaka<sup>1</sup>, Sachiyo Kaneko<sup>1</sup>, Masato Kiuchi<sup>4</sup>, Takahito Suzuki<sup>2</sup>, Takae Takeuchi<sup>2,4</sup>
- 3C-O1-0940 ☆Dependence of needle angle on negative ion formation in atmospheric pressure corona discharges (Yokohama City Univ.) °Kanao Sekimoto, Mitsuo Takayama

#### Poster Short Presentations

(10:15~10:45) Chair: Tomoya Kinumi (AIST)

- 3C-SP-1015 ☆Study of the matrix deposition method for mass microscope (<sup>1</sup>Shimadzu Corporation, <sup>2</sup>Hamamatsu University School of Medicine) °Kazuteru Takahashi<sup>1</sup>, Takahiro Harada<sup>1</sup>, Yumi Matsumoto<sup>1</sup>, Hideaki Izumi<sup>1</sup>, Kiyoshi Ogawa<sup>1</sup>, Mitsutoshi Setou<sup>2</sup>
- 3C-SP-1020 ☆Super Atmospheric Pressure ( $P > 1$  atm) Electrospray Ion Source (Univ. Yamanashi) °Lee Chuin Chen, Mridul Kanti Mandal, Kenzo Hiraoka
- 3C-SP-1025 ☆Heat-shock desorption/mass spectrometry (<sup>1</sup>Univ. Yamanashi, <sup>2</sup>Univ. Yamanashi CERC) °Dilshadbek Usmanov<sup>2</sup>, Satoshi Ninomiya<sup>1</sup>, Lee Chuin Chen<sup>1</sup>, Kenzo Hiraoka<sup>2</sup>
- 3C-SP-1030 ☆Live Single-cell MS for real time molecular detection of a stimulated cell (<sup>1</sup>Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 3C-SP-1035 ☆Determination of benzodiazepines by LC/MSMS with trigger-MRM (<sup>1</sup>Agilent, <sup>2</sup>Nippon Med. Sch., <sup>3</sup>MST) °Masahiko Takino<sup>1</sup>, Makiko Hasashida<sup>2</sup>, Chieko

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Yoshizawa<sup>3</sup>, Hiroko Abe<sup>3</sup>

3C-SP-1040 ☆Live Single-Cell Mass Spectrometry for  
(3P-20) Spatiotemporal Analysis of Bioactive Sub-  
stances in a Plant (Radish Sprouts)  
(<sup>1</sup>Grad.Sch.Biomed.Sci., Hiroshima Univ.,  
<sup>2</sup>QBiC, RIKEN) °Shuichi Matsuda<sup>1</sup>, Hajime  
Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko  
Date<sup>2</sup>, Tsutomu Masujima<sup>1, 2</sup>

Luncheon Seminars (Presented by Agilent Technologies  
Japan, Ltd.)

(12:10~13:10)

3C-L-1210 Comprehensive Native Glycan Profiling  
with Isomer Separation and Quantitation  
for the Discovery of Cancer Biomarkers  
(Chungnam Natl. Univ.) °Hyun Joo An

The mark “☆” shows that the presenting author applied to  
the “Best Presentation Award”.

Poster Room (Gekko)

Core time (Odd numbers): 11:00~12:00

Core time (Even numbers): 13:15~14:15

The mark “☆” shows that the presenting author applied to  
the “Best Presentation Award”.

3P-01 ☆Evaluation of a novel database search algorithm  
using MS $n$  spectra (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Eisai)  
°Kentarō Morimoto<sup>1</sup>, Masaki Murase<sup>1</sup>, Tsuyoshi  
Tabata<sup>2</sup>, Shigeki Kajihara<sup>1</sup>, Ken Aoshima<sup>2</sup>,  
Yoshiya Oda<sup>2</sup>, Koichi Tanaka<sup>1</sup>

3P-02 ☆Development of Algorithm Enabling Data-  
driven Determination of Elemental Composition  
based on Isotopic Peak Ratio Observed by  
Ultrahigh-resolution FT-ICR-MS (<sup>1</sup>Biores. Bioenv.  
Sci., Kyushu Univ., <sup>2</sup>ICMRN, Kyushu Univ.,  
<sup>3</sup>Bioarc., Kyushu Univ., <sup>4</sup>Fac. of Agric., Kyushu  
Univ.) °Tatsuhiko Nagao<sup>1</sup>, Daichi Yukihira<sup>1</sup>,  
Yoshinori Fujimura<sup>2</sup>, Daisuke Miura<sup>2</sup>, Hiroyuki  
Wariishi<sup>2, 3, 4</sup>

3P-03 ☆N-Terminal selective derivatization with a 4-  
amidinophenyl group to improve peptide frag-  
mentation (Kyoto Univ.) °Toru Yoshikawa,  
Masahiro Miyashita, Hisashi Miyagawa

3P-04 ☆Spatio-temporal Molecular Distribution in a  
Developing Frog (*Xenopus*) Egg by LC-MS  
(<sup>1</sup>Grad.Sch.Biomed.Sci., Hiroshima Univ., <sup>2</sup>Grad.  
Sch.Sci., Hiroshima Univ., <sup>3</sup>QBiC, RIKEN) °Siyu  
Zhang<sup>1</sup>, Atsushi Kurisu<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>,  
Hajime Mizuno<sup>1</sup>, Atsushi Suzuki<sup>2</sup>, Kimiko  
Takebayashi-Suzuki<sup>2</sup>, Sachiko Date<sup>3</sup>, Tsutomu  
Masujima<sup>1, 3</sup>

3P-05 ☆Protein C-terminome analysis of *in vivo* pro-  
tease cleavage products—Its application for  
Biomarker Discovery—(<sup>1</sup>Osaka Univ., <sup>2</sup>Miyazaki  
Univ.) °Seiji Iguchi<sup>1</sup>, Koichi Imai<sup>2</sup>, Nobuhiro  
Matsumoto<sup>2</sup>, Masamitsu Nakazato<sup>2</sup>, Toshifumi  
Takao<sup>1</sup>

3P-06 ☆Structural analysis of triacylglycerols using  
MALDI-TOF-TOF tandem MS with high  
precursor-ion selectivity (JEOL) °Ayumi Kubo,  
Masahiro Hashimoto, Yoshiyuki Itoh, Jun Onodera

3P-07 ☆Live single-cell MS for monitoring specific  
molecules in phospholipidotic cells (<sup>1</sup>Hiroshima  
Univ., Grad. Sch. Biomed. Sci., <sup>2</sup>QBiC, RIKEN)  
°Kiyoshi Takeshima<sup>1</sup>, Sachiko Date<sup>2</sup>, Hajime  
Mizuno<sup>1</sup>, Naohiro Tuyama<sup>1</sup>, Tsutomu Masu-  
jima<sup>1, 2</sup>

3P-08 ☆Rapid Screening of Renal Cell Carcinoma

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- (RCC) by Probe Electrospray Ionization Mass Spectrometry (<sup>1</sup>CERC, <sup>2</sup>Univ. Yamanashi, <sup>3</sup>Univ. Yamanashi) °Mridul Kanti Mandal<sup>1</sup>, Kentaro Yoshimura<sup>3</sup>, Lee Chuin Chen<sup>2</sup>, Zhan Yu<sup>1</sup>, Sen Takeda<sup>3</sup>, Kenzo Hiraoka<sup>1</sup>
- 3P-09 ☆Effect of Small Matrix Molecules in Nano ESI (<sup>1</sup>Hiroshima Univ., Grad. Sch. Biomed. Sci., <sup>2</sup>QBiC) °Megumi Wakimoto<sup>1</sup>, Yui Okamura<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 3P-10 ☆Improving Bioanalytical Selectivity in Differential Mobility Spectrometry—Mass Spectrometry Using Chemical Effects (AB SCIEX) °Shigeru Yamada, Ryoma Yamamoto
- 3P-11 ☆A New Approach for Finding Sweet Spots of Glycopeptides by Distinction of Polymorphism of Matrix Crystal in Matrix-Assisted Laser Desorption/Ionization (The Noguchi Institute) °Hisako Okumura, Takashi Nishikaze, Hiroshi Jinmei, Junko Amano
- 3P-12 ☆MALDI MS metabolite profiling by using nanoparticles of metal oxides and allotropes of carbon (<sup>1</sup>Ehime Univ., <sup>2</sup>Univ. of Buenos Aires, <sup>3</sup>Ehime Univ.) °Yousef Gholipour<sup>1</sup>, Rosa Erra-Balsells<sup>2</sup>, Hiroshi Nonami<sup>3</sup>
- 3P-13 ☆Direct Single Cell Analysis of Intracellular Drug Metabolism in a Primary Hepatocyte (<sup>1</sup>QBiC, RIKEN, <sup>2</sup>Hiroshima Univ., <sup>3</sup>ITO-EN. Ltd.) °Sachiko Date<sup>1</sup>, Hajime Mizuno<sup>2</sup>, Naohiro Tsuyama<sup>2</sup>, Takanori Harada<sup>2</sup>, Iwao Sakane<sup>3</sup>, Tsutomu Masujima<sup>1,2</sup>
- 3P-14 ☆Construction of metabolic profiling method for carotenoid derivatives using supercritical fluid chromatography coupled with tandem mass spectrometry (<sup>1</sup>Osaka Univ., <sup>2</sup>Kobe Univ.) °Atsuki Matsubara<sup>1</sup>, Takato Uchikata<sup>1</sup>, Masakazu Shinohara<sup>2</sup>, Masaru Yoshida<sup>2</sup>, Eiichiro Fukusaki<sup>1</sup>, Takeshi Bamba<sup>1</sup>
- 3P-15 ☆Study of the matrix deposition method for mass microscope (<sup>1</sup>Shimadzu Corporation, <sup>2</sup>Hamamatsu University School of Medicine) °Kazuteru Takahashi<sup>1</sup>, Takahiro Harada<sup>1</sup>, Yumi Matsumoto<sup>1</sup>, Hideaki Izumi<sup>1</sup>, Kiyoshi Ogawa<sup>1</sup>, Mitsutoshi Setou<sup>2</sup>
- 3P-16 ☆Super Atmospheric Pressure ( $P > 1$  atm) Electrospray Ion Source (Univ. Yamanashi) °Lee Chuin Chen, Mridul Kanti Mandal, Kenzo Hiraoka
- 3P-17 ☆Heat-shock desorption/mass spectrometry (<sup>1</sup>Univ. Yamanashi, <sup>2</sup>Univ. Yamanashi CERC) °Dilshadbek Usmanov<sup>2</sup>, Satoshi Ninomiya<sup>1</sup>, Lee Chuin Chen<sup>1</sup>, Kenzo Hiraoka<sup>2</sup>
- 3P-18 ☆Live single-cell MS for real time molecular detection of a stimulated cell (<sup>1</sup>Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 3P-19 ☆Determination of benzodiazepines by LC/MSMS with trigger-MRM (<sup>1</sup>Agilent, <sup>2</sup>Nippon Med. Sch., <sup>3</sup>MST) °Masahiko Takino<sup>1</sup>, Makiko Hasashida<sup>2</sup>, Chieko Yoshizawa<sup>3</sup>, Hiroko Abe<sup>3</sup>
- 3P-20 ☆Live Single-Cell Mass Spectrometry for Spatiotemporal Analysis of Bioactive Substances in a Plant (Radish Sprouts) (<sup>1</sup>Grad.Sch.Biomed.Sci., Hiroshima Univ., <sup>2</sup>QBiC, RIKEN) °Shuichi Matsuda<sup>1</sup>, Hajime Mizuno<sup>1</sup>, Naohiro Tsuyama<sup>1</sup>, Sachiko Date<sup>2</sup>, Tsutomu Masujima<sup>1,2</sup>
- 3P-21 Application of post-translational modification information in database search (<sup>1</sup>Shimadzu Corp., <sup>2</sup>Eisai Co., Ltd.) °Akiyasu Yoshizawa<sup>1</sup>, Tsuyoshi Tabata<sup>2</sup>, Takayuki Kimura<sup>2</sup>, Ken Aoshima<sup>2</sup>, Yoshiya Oda<sup>2</sup>, Shigeki Kajihara<sup>1</sup>, Koichi Tanaka<sup>1</sup>
- 3P-22 Software for discrimination of regions based on imaging mass spectrometry data (<sup>1</sup>Jpn. Fdn. Cancer Res., <sup>2</sup>Shimadzu Corp., <sup>3</sup>Kansai Med. Univ., <sup>4</sup>Hamamatsu Univ. Sch. Med., <sup>5</sup>Keio Univ.) °Masaru Ushijima<sup>1</sup>, Shigeki Kajihara<sup>2</sup>, Kurando Hosaka<sup>3</sup>, Satoshi Miyata<sup>1</sup>, Takahiro Hayasaka<sup>4</sup>, Naoko Goto-Inoue<sup>4</sup>, Noritaka Masaki<sup>4</sup>, Akiko Yuba-Kubo<sup>5</sup>, Masatoshi Wakui<sup>5</sup>, Ikuko Yao<sup>3</sup>, Kiyoshi Ogawa<sup>2</sup>, Mitsutoshi Setou<sup>4</sup>, Masaaki Matsuura<sup>1</sup>
- 3P-23 Tandem Mass Tags for Relative Quantification Using Higher Energy Dissociation on a (TFSSK) °Meiying Han, Daisuke Higo, Yoko Yamagishi, Shigeru Sakamoto
- 3P-24 Investigation of the function of microcystin-degrading bacterium (Part 1) (<sup>1</sup>Meijo Univ., <sup>2</sup>Meijo Univ., <sup>3</sup>Aichi Med. Univ., <sup>4</sup>Kanagawa Inst. Pub. Health) Miki Kurita<sup>2</sup>, Atsushi Miyachi<sup>2</sup>, Fumio Kondo<sup>3</sup>, Kiyomi Tsuji<sup>4</sup>, °Ken-ichi Harada<sup>1,2</sup>
- 3P-25 (SWATH) A Method for Collecting MSMS of All Parent Ions in a Sample on an LC Time Scale (<sup>1</sup>K.K. AB SCIEX, <sup>2</sup>AB SCIEX Canada) °Takeshi Shibata<sup>1</sup>, Takuichi Tsubata<sup>1</sup>, Stephen Tate<sup>2</sup>, Alexander Loboda<sup>2</sup>, Igor Chernushevich<sup>2</sup>
- 3P-26 Estimation of HER2 *N*-glycosylation ratio using MALDI MS (<sup>1</sup>Kyoto Univ., <sup>2</sup>Shimadzu Corp.) °Kazuya Terasawa<sup>1</sup>, Hiromasa Uchimura<sup>1</sup>, Kaoru Kaneshiro<sup>2</sup>, Makoto Watanabe<sup>2</sup>, Kazuharu Shimizu<sup>1</sup>, Gozoh Tsujimoto<sup>1</sup>, Koichi Tanaka<sup>2</sup>
- 3P-27 Application of High-Resolution Mass Spectrometry to Metabolite Profiling of siRNA Duplex (<sup>1</sup>Takeda Pharmaceutical Company Limited,

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- <sup>2</sup>Shimadzu Corporation) °Hisao Shimizu<sup>1</sup>, Fumihiro Jinno<sup>1</sup>, Akio Morohashi<sup>1</sup>, Yuzo Yamazaki<sup>2</sup>, Masaki Yamada<sup>2</sup>, Takahiro Kondo<sup>1</sup>, Satoru Asahi<sup>1</sup>
- 3P-28** Study of the quantitative method for determination of drugs in Dried Blood Spots and Dried Plasma Spots. (JCL Bioassay) °Kawamura Masanori, Yumi Nishiguchi, Wato Yahata, Yasunobu Matsumoto, Ayumi Nitta, Hisami Murai
- 3P-29** Detection and Confirmation of the Metabolites of AZD6495 Using the Automated Collection of Simultaneous SRM and Full Scan LC/MS/MS (<sup>1</sup>Nihon Waters, <sup>2</sup>Astra Zeneca, <sup>3</sup>Waters) Noriko Kato<sup>1</sup>, Rob Plumb<sup>3</sup>, Paul Rainville<sup>3</sup>, Joanne Mather<sup>3</sup>, Ian Wilson<sup>2</sup>, Ignatius Kass<sup>3</sup>, °Motoji Oshikata<sup>1</sup>, Yukari Haramaki<sup>1</sup>
- 3P-30** Screening and Identification with High Confidence Based on High Resolution and Accurate Mass LC-MS/MS (ABSciex) °Miho Tada, Toshiyuki Yamazaki, Kaoru Karasawa, Sumie Ando
- 3P-31** Automatic on-tissue digestion using ImagePrep (<sup>1</sup>Bruker Daltonics, <sup>2</sup>Bruker Daltonics, <sup>3</sup>Bruker Daltonics) °Toshiji Kudo<sup>1</sup>, Yumiko Matsuyama<sup>2</sup>, Takashi Nirasawa<sup>3</sup>
- 3P-32** Detailed Structural Analysis of Lipids Using On-Tissue High-Energy Collision-Induced Dissociation by MALDI-SpiralTOF-TOF (<sup>1</sup>Osaka Univ., <sup>2</sup>JEOL Ltd., <sup>3</sup>Osaka Univ.) °Shuichi Shimma<sup>1</sup>, Ayumi Kubo<sup>2</sup>, Takaya Satoh<sup>2</sup>, Michisato Toyoda<sup>3</sup>
- 3P-33** MALDI MS analysis of *O*-glycan structures of a cell adhesion molecule, CADMI (<sup>1</sup>Div. of Mol. Pathol., Inst. of Med. Sci., Univ. of Tokyo, <sup>2</sup>Med. Proteo. Lab., Inst. of Med. Sci., Univ. of Tokyo, <sup>3</sup>Shimadzu Corp.) Mika Sakurai-Yageta<sup>1</sup>, °Tomoko Maruyama<sup>1</sup>, Megumi Ishimura<sup>1</sup>, Azusa Yanagawa<sup>1</sup>, Masaaki Oyama<sup>2</sup>, Hiroko Kondo<sup>2</sup>, Sadanori Sekiya<sup>3</sup>, Shinichi Iwamoto<sup>3</sup>, Koichi Tanaka<sup>3</sup>, Yoshinori Murakami<sup>1</sup>
- 3P-34** Evaluation of data-mining method for glycan profiles by liquid chromatography/mass spectrometry and principal component analysis (<sup>1</sup>Natl. Inst. Health Sci., <sup>2</sup>Hokkaido Univ.) °Noritaka Hashii<sup>1</sup>, Akira Harazono<sup>1</sup>, Ryosuke Kuribayashi<sup>1</sup>, Shiori Nakazawa<sup>1,2</sup>, Nana Kawasaki<sup>1,2</sup>
- 3P-35** Composition analysis for materials using comprehensive 2D LC (LCXLC)-MS and multivariate analysis technique (<sup>1</sup>Nissan Chemical Industries, Ltd., <sup>2</sup>Kansai Univ.) °Tomoyuki Ozawa<sup>1</sup>, Shota Nakanishi<sup>1</sup>, Hisae Miyamoto<sup>1</sup>, Tatsuya Seki<sup>1</sup>, Hirotaka Hisatomi<sup>2</sup>, Hideya Kawasaki<sup>2</sup>, Ryuichi Arakawa<sup>2</sup>
- 3P-36** Coulomb-Interaction-Induced Dephasing of Coherent Ion Cloud Motion for Xe Isotopic Ions in FT-ICR Cells: A Many-Particle Simulation Using GRAPE (Hiroshima City Univ.) °Makoto Fujiwara, Naohisa Happo, Koichi Tanaka
- 3P-37** Comparison of Oral-Drug Concentrations in Human Saliva and Serum (<sup>1</sup>CRL, Hitachi, Ltd., <sup>2</sup>Hitachi Yokohama Hospital) °Yukiko Hirabayashi<sup>1</sup>, Yukari Yamamoto<sup>1</sup>, Takashi Shinagawa<sup>2</sup>, Joji Suzuki<sup>2</sup>, Toshio Kaji<sup>2</sup>
- 3P-38** Ionization of amino acid and the formation of its hydrated ions under atmospheric pressure conditions (Yokohama City Univ.) °Mami Sakai, Kanako Sekimoto, Mitsuo Takayama
- 3P-39** High resolution mass spectrometry of solid samples with a direct probe ionization (<sup>1</sup>Bruker Daltonics KK, <sup>2</sup>Bruker Daltonics KK, <sup>3</sup>Bruker Daltonics KK, <sup>4</sup>Bruker Daltonics KK, <sup>5</sup>Bruker Daltonics KK) °Haruo Hosoda<sup>1</sup>, Jouji Seta<sup>2</sup>, Noriyuki Iwasaki<sup>3</sup>, Takashi Nirasawa<sup>4</sup>, Kazunori Saito<sup>5</sup>
- 3P-40** Highly sensitive MALDI analyses of phosphorylated peptides using an optimized liquid matrix 3-AQ/CHCA (Shimadzu Corp.) °Yuko Fukuyama, Kohei Takeyama, Shinichi Iwamoto, Koichi Tanaka
- 3P-41** Basic examination of the photoionization method in GC/MS—Comparison of mass spectra of EI, FI and PI—(JEOL) Tetsuo Higuchi, Kazuaki Murayama, °Keisuke Ishii, Yukinori Yahata
- 3P-42** <sup>15</sup>N-D-Labeled ionic probes for mass spectrometry (Faculty of Pharmaceutical Sciences at Kagawa Campus, Tokushima Bunri University) °Fumihiro Ito, Shin Ando, Masato Iuchi, Taki Ukari, Momoka Takasaki, Kentaro Yamaguchi
- 3P-43** Chemiluminescence of Products from N-Containing Compounds with Hydrogen Peroxide and the Product Ion by CID (<sup>1</sup>OMTRI, <sup>2</sup>Kinki Univ., <sup>3</sup>Tottori Univ., <sup>4</sup>Chemco Sci. Co., Ltd., <sup>5</sup>ATTO Co.) Osamu Nozaki<sup>2</sup>, °Motohiro Shizuma<sup>1</sup>, Hiroko Kawamoto<sup>3</sup>, Motonori Munesue<sup>4</sup>, Hidehiro Kubota<sup>5</sup>, Tadasu Ikeda<sup>3</sup>
- 3P-44** Studies on compounds responsive to tyrosine in cigarette smoke extract (<sup>1</sup>Mukogawa Women's Univ., <sup>2</sup>Osaka City Institute of Public Health and Environmental Science, <sup>3</sup>Kansai Univ., <sup>4</sup>Yokohama City Univ.) °Shizuyo Horiyama<sup>1</sup>, Chie Honda<sup>1</sup>, Kiyoko Suwa<sup>1</sup>, Kiyoharu Nishide<sup>1</sup>, Yuta Takahashi<sup>1</sup>, Kazuki Nakamura<sup>1</sup>, Masaru Kunitomo<sup>1</sup>, Atushi Yamamoto<sup>2</sup>, Hirotaka Hisatomi<sup>3</sup>, Hideya Kawasaki<sup>3</sup>, Ryuichi Arakawa<sup>3</sup>

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Mitsuo Takayama<sup>4</sup>

- 3P-45 High throughput analysis of anion surfactant using ultra-high speed LC-MS/MS and 1 mm inside diameter column (<sup>1</sup>Shimadzu, <sup>2</sup>Imtakt) Keiko Matsumoto<sup>1</sup>, °Jun Watanabe<sup>1</sup>, Manabu Yukiya<sup>1</sup>, Junko Iida<sup>1</sup>, Itaru Yazawa<sup>2</sup>
- 3P-46 Two-Dimensional Liquid Chromatography Coupled with High-Resolution Mass Spectrometry for the Analysis of Perfluoroalkyl Compounds (<sup>1</sup>Osaka City Inst. Pub. Health Environ. Sci., <sup>2</sup>Kansai Univ., <sup>3</sup>Nippon Dione, <sup>4</sup>Hyogo Pref. Inst. Environ. Sci.) °Atsushi Yamamoto<sup>1</sup>, Hirotaka Hisatomi<sup>2</sup>, Yoshinari Yamoto<sup>2</sup>, Mikiya Kitagawa<sup>3</sup>, Toru Yasuhara<sup>3</sup>, Shusuke Takemine<sup>4</sup>, Hideya Kawasaki<sup>2</sup>, Ryuichi Arakawa<sup>2</sup>
- 3P-47 Widely-targeted metabolic profiling analysis of anionic metabolites using LC-QqQ-MS (<sup>1</sup>Kobe Univ., <sup>2</sup>Kobe Univ.) °Fumio Matsuda<sup>1</sup>, Akihiko Kondo<sup>2</sup>
- 3P-48 Direct Analysis of Polymer Materials by DART-MS Using Temperature Rising System (<sup>1</sup>Shiseido Co., Ltd, <sup>2</sup>Bio Chromato, Inc., <sup>3</sup>Univ. of Yamashiro) °Haruo Shimada<sup>1</sup>, Tokimasa Kawanishi<sup>1</sup>, Yoshimasa Nakatani<sup>1</sup>, Yuka Noritake<sup>1</sup>, Rakan Matsui<sup>1</sup>, Kazumasa Kinoshita<sup>2</sup>, Yasuo Shida<sup>3</sup>
- 3P-49 Simulation of ion trajectories in a linear ion trap with plate electrodes inserted between rod electrodes (<sup>1</sup>Osaka Univ., <sup>2</sup>Osaka Univ., <sup>3</sup>MSI TOKYO, <sup>4</sup>Osaka Univ.) °Hiroki Andoh<sup>1</sup>, Masanobu Nakazono<sup>2</sup>, Shinichi Miki<sup>3</sup>, Michisato Toyoda<sup>4</sup>
- 3P-50 Dual wire linear ion trap for analyzing large populations of ions (Hitachi, Ltd.) °Sugiyama Masuyuki, Hideki Hasegawa, Yuichiro Hashimoto
- 3P-51 Differentiating Carbohydrate Positional and Structural Isomers by Ion Mobility Mass Spectrometry (<sup>1</sup>Nihon Waters K.K., <sup>2</sup>Waters Corp.) °Kenji Hirose<sup>1</sup>, Taiji Kawase<sup>1</sup>, Weibin Chen<sup>2</sup>, Ying-Qing Yu<sup>2</sup>, Asish Chakraborty<sup>2</sup>, Henry Shion<sup>2</sup>, St. John Skilton<sup>2</sup>