

The 36th Annual Meeting of the Japanese Society for Biomedical Mass Spectrometry

Program

September 15th (Thu) - 16th (Fri), 2011

**Hotel Hankyu-ExpoPark, Galaxy-Room
1-5 Senri Expopark, Suita-city, Osaka 565-0826, Japan**



Toyofumi Nakanishi, Ph.D.

**President of the 36th Annual Meeting of
the Japanese Society for Biomedical Mass Spectrometry**

**Department of Clinical and Laboratory Medicine,
Osaka Medical College**

2-7 Daigaku-cho, Takatsuki-city, Osaka 569-8686, Japan

Tel: +81-72-683-1221 Fax: +81-72-684-6548

E-mail: jsbms36@art.osaka-med.ac.jp

Time Schedule

September 15 (Thursday)

| | |
|--------------------|---|
| 9:25- 9:30 | Opening Remarks |
| 9:30-10:10 | Oral Session 1 (Biomarkers: O1-1~3) |
| 10:15-10:55 | Oral Session 2 (Metabolic Disorders: O2-1~3) |
| 11:00-12:00 | Poster Presentation |
| 12:00-12:30 | Luncheon Seminar / Board Meeting |
| 12:30-13:00 | JSBMS General Meeting |
| 13:00-14:15 | Symposium 1 (Forensic Toxicology: S1-1~3) |
| 14:20-17:40 | Plenary Lectures I - IV |
| | (Joint with the 59th Annual Conference on Mass Spectrometry) |
| 18:00-20:00 | Banquet |
| | Award Ceremony (Best Poster Presentation) |

September 16 (Friday)

| | |
|--------------------|---|
| 9:00- 9:40 | Oral Session 3 (Post-Translational Modification: O3-1~3) |
| 9:45-11:00 | Symposium 2 (Clinical Microbiology: S2-1 ~3) |
| 11:05-12:20 | Symposium 3 (MALDI-Imaging: S3-1 ~3) |
| 12:25-13:10 | Luncheon Seminar |
| 13:15-14:30 | Workshop 1 |
| 14:35-16:00 | Workshop 2 |
| 16:00 | Closing Remarks |

Program

September 15 (Thursday)

9:25 Opening Remarks (Toyofumi Nakanishi)

9:30-10:10 Oral Session 1

Organizer: Yoshiaki Taniguchi (Tokushima University)

O1-1 The Analysis of Serum Proteomics for IgG4-Related Disease Patients

Takanobu Takata¹, Takafumi Kawanami², Kamisawa Terumi³, Haruka Iwao², Yasufumi Masaki², Yasuhito Ishigaki¹, Takuji Nakamura², Akio Nakajima², Miyuki Miki², Tomoyuki Sakai², Toshioki Sawaki², Yoshimasa Fujita², Toshihiro Fukusima², Tsutomu Takegami¹, Hisanori Umehara², Naohisa Tomosugi^{1,4}

¹Medical Research Institute, Kanazawa Medical University

²Department of Hematology and Immunology, Kanazawa Medical University

³Tokyo Metropolitan Cancer and Infectious Disease Center Komagome Hospital

⁴Department of Nephrology, Kanazawa Medical University

O1-2 Processed B-type Natriuretic Peptide is a Biomarker of Post-Interventional Restenosis in Coronary Artery Disease

Hiroataka Fujimoto^{1,2}, Toru Suzuki^{1,3}, Kenichi Aizawa^{1,3}, Daigo Sawaki¹, Junichi Ishida¹, Ryoza Nagai¹

¹Department of Cardiovascular Medicine, Graduate School of Medicine The University of Tokyo

²Technology Research Laboratory, Shimadzu Corporation.

³Department of Ubiquitous Preventive Medicine, Graduate School of Medicine, The University of Tokyo.

O1-3 A Novel Diagnostic Tool for Amyloid Typing: Liquid Chromatography Tandem Mass Spectrometry

Masayoshi Tasaki¹, Mitsuharu Ueda¹, Sayaka Mikami³, Mei Ying⁴, Satomi Kawahara¹, Toshinori Oshima¹, Akihiro Yanagisawa¹, Genki Suenaga¹, Ayaka Sugasaki¹, Takahiro Kawaji², Yoshinobu Hoshii⁵, Yasuhiko Bando³, Satoru Shinriki¹, Makoto Shono¹, Hirofumi Jono¹, Konen Obayashi¹, Yukio Ando¹

¹Department of Diagnostic Medicine, Graduate School of Medical Sciences, Kumamoto University

²Department of Ophthalmology and Visual Science, Graduate School of Medical Sciences, Kumamoto University

³AMR INCORPORATED

⁴Thermo Fisher SCIENTIFIC

⁵Department of Pathology, Yamaguchi University School of Medicine

10:15-10:55 Oral Session 2

Organizer: Shin Yoshino (Kurume University)

O2-1 A False-Negative Case with CPT-2 Deficiency in MS/MS Newborn Screening: Characteristics of the Patient and Modified Screening Markers

Yosuke Shigematsu¹, Ikue Hata¹, Go Tajima³

¹Microbial Chemistry Research Foundation, Specified Research Promoting Group

²Dept. of Molecular Cell Biology, Inst. of DNA Medicine, Jikei University School of Medicine

- O2-2 **Evaluation of Effectiveness of Bezafibrate for Mitochondrial Fatty Acid Disorders, Using *In Vitro* Probe Assay**
 Seiji Yamaguchi¹, Li Hong¹, Purevusren Jamyian¹, Midori Furui¹, Kenji Yamada¹,
 Yuichi Mushimoto¹, Hironori Kobayashi¹, Yuki Hasegawa¹, Toshiyuki Fukao²,
 Seiji Fukuda¹
¹Department of Pediatrics, Shimane University School of Medicine
²Department of Pediatrics, Gifu University School of Medicine
- O2-3 **Rapid Chemical Diagnosis of Molybdenum Cofactor Deficiency by GC/MS Urine Metabolomics**
 Tomiko Kuhara¹, Morimasa Ohse¹, Akira Tamura², Koichi Minami², Naomi Kioka²,
 Youhei Hosoi³, Rumi Taniguchi^{3,4}, Atsushi Sato^{3,4}, Masaru Takamizawa³
¹Division of Human Genetics, Medical Research Institute, Kanazawa Medical University
²Department of Pediatrics, School of Medicine, Wakayama Medical University
³Department of Pediatrics, Saitama Citizens Medical Center
⁴Department of Pediatrics, Graduate School of Medicine, The University of Tokyo

11:00-12:00 Poster Presentation

- P1 **Determination of Metabolites in Inborn Error of Pyrimidine Metabolism by HPLC-MS/MS**
 Yasuhiro Maeda¹, Ayumi Kato¹, Yoko Nakajima², Sayaka Kato², Kazunori Kimura¹,
 Yukihisa Kurono¹, Tetsuya Ito²
¹Department of Hospital Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City University
²Department of Pediatrics, Graduate School of Medical Sciences, Nagoya City University
- P2 **Study of Urinary Metabolites Profile of Jaundice Infant**
 Chunhua Zhang
 Department of Research & Development of MILS International
- P3 **Analysis of Urinary Organic Acids using GCxGC Combined with Rapid-Scanning Quadrupole Mass Spectrometer**
 Shuichi Kawana¹, Riki Kitano¹, Haruhiko Miyagawa¹, Katsuhiro Nakagawa¹,
 Yuki Hasegawa², Seiji Yamaguchi^{1,2}
¹Analytical & Measuring Instruments Division, SHIMADZU CORPORATION
²Department of Pediatrics, Shimane University School of Medicine
- P4 **Metabolomics Analysis of Dog Epilepsy by GC/MS**
 Yusuke Horitani¹, Tetsuya Hasegawa^{1,2}, Reo Tamai¹, Momoko Isa¹, Maho Sumita¹,
 Katsuhiro Tanaka¹, Masayuki Komori¹, Shigeo Takenaka¹
¹Laboratory of Cellular and Molecular Biology, Department of Veterinary Science, Osaka Prefecture University
²Kakogawa Animal Hospital
- P5 **Application of Short Tandem Capillary Columns to Faster GC-MS for Postmortem Samples**
 Kenji Hara¹, Masayuki Kashiwagi¹, Brian Waters¹, Aya Matsusue¹,
 Tomoko Sugimura¹, Saiko Hamasato¹, Shinichi Kubo¹, Shuichi Kawana²,
 Haruhiko Miyagawa²
¹Department of Forensic Medicine, Faculty of Medicine, Fukuoka University
²Shimadzu Corporation

- P6 **Identification of Glutathione Conjugates of 4-Phenylbutyric Acid in Rat Bile by LC/-ESI-MS/MS**
Shigeo Ikegawa, Yuki Hashimoto, Yuto Ohashi, Kuniko Mitamura
Faculty of Pharmaceutical Sciences, Kinki University
- P7 **Simultaneous Analysis of Bile Acids in Rat Serum and Liver Samples by Ultra-Performance Liquid Chromatography Tandem Mass Spectrometry**
Yudai Suzuki¹, Rina Kaneko¹, Mina Nomura¹, Hideki Hattori², Akira Ishii¹
¹Nagoya University Graduate School of Medicine
²Aichi Medical University
- P8 **Rapid and Reliable TOF Screening using the Novel Data Acquisition Mode -MS^E**
Masayo Yabu¹, Michelle Wood²
¹Nihon Waters K.K
²Watres Corporation, MS Technology Center, Manchester, UK
- P9 **A Rapid and Decisive Determination of Azide in Gastric Fluid and Urine using Electrospray Ionization Tandem Mass Spectrometric Method**
Kayoko Minakata¹, Hideki Nozawa¹, Itaru Yamagishi¹, Masako Suzuki²,
Kunio Gonmori¹, Koutaro Hasegawa¹, Kanako Watanabe¹, Osamu Suzuki¹
¹Department of Legal Medicine, Hamamatsu University School of Medicine
²Research Equipment Center, Hamamatsu University School of Medicine
- P10 **Uremic Toxins Analysis in Hemodialysis Patients: Evaluation of Their Protein Binding and Reduction Rates by LC/MS/MS**
Kaori Kikuchi¹, Yoshiharu Itoh¹, Yoshinari Tsuruta², Toshimitsu Niwa³
¹Biomedical Research Laboratories, Kureha Corporation
²Div. of Nephrology, Meiyo Clinic
³Department of Advanced Medicine for Uremia, Nagoya University Graduate School of Medicine
- P11 **A Quantitation Method of Olanzapine in Plasma of Psychiatric Patients by GC-EI-MS**
Kayo Ikeda¹, Kazuro Ikawa¹, Toshihiro Kozumi¹, Satoko Yokoshige¹,
Kenichi Yoshizawa¹, Shunji Horikawa², Norifumi Morikawa¹
¹Department of Clinical Pharmacotherapy, Graduate School of Biomedical Sciences, Hiroshima University
²Department of Pharmacy, JA Yoshida General Hospital
- P12 **A Rapid and Simultaneous Analysis of Theophylline and Its Metabolites in Human Blood with Ultra-Performance Liquid Chromatography Tandem Mass Spectrometry**
Tadashi Ogawa¹, Hideki Hattori¹, Masae Iwai¹, Kenjiro Ito¹, Akira Ishii²,
Osamu Suzuki³, Hiroshi Seno¹
¹Aichi Medical University School of Medicine
²Nagoya University Graduate School of Medicine
³Hamamatsu University School of Medicine
- P13 **Comparison of Drug Concentrations in Human Saliva and Serum using Column-Switching Ultra-Fast LC/MS/MS**
Yukiko Hirabayashi¹, Yukari Yamamoto¹, Takashi Shinagawa², Joji Suzuki²,
Toshio Kaji²
¹Central Research Laboratory, Hitachi, Ltd.
²Hitachi Yokohama Hospital, Hitachi, Ltd.

- P14 **Analyses for Triglyceride Hydroperoxides in LDL and HDL by LC/MS**
 Shu-Ping Hui¹, Yudai Taguchi¹, Toshihiro Sakurai^{1,2}, Shinobu Yamaki¹,
 Hiroaki Furumaki¹, Shigeki Jin¹, Hirotoshi Fuda¹, Seiji Takeda¹,
 Takao Kurosawa³, Hitoshi Chiba¹
¹Faculty of Health Sciences, Hokkaido University
²Research fellow, Japan Society for the Promotion of Science
³Faculty of Pharmaceutical Sciences, Health Sciences University of Hokkaido
- P15 **Development of the Quantitative Analysis of 18-Hydroxycortisol in Human Serum using LC-MS/MS**
 Shigeki Jin¹, Shu-Ping Hui¹, Norio Wada², Toshihiro Sakurai^{1,3}, Yuji Takahashi⁴,
 Katsuyuki Yanagisawa², Takao Kurosawa⁵, Hitoshi Chiba¹
¹Faculty of Health Sciences, Hokkaido University
²Department of Diabetes and Endocrinology, Sapporo City General Hospital
³Research Fellow of the Japan Society for the Promotion of Science
⁴Department of Clinical Laboratory, Sapporo City General Hospital
⁵Faculty of Pharmaceutical Sciences, Health Sciences University of Hokkaido
- P16 **Usefulness of Serum 18-Hydroxycortisol Quantitation for Differential Diagnosis of Primary Aldosteronism**
 Shigeki Jin¹, Norio Wada², Shu-Ping Hui¹, Toshihiro Sakurai^{1,3}, Yuji Takahashi⁴,
 Katsuyuki Yanagisawa², Takao Kurosawa⁵, Hitoshi Chiba¹
¹Faculty of Health Sciences, Hokkaido University
²Department of Diabetes and Endocrinology, Sapporo City General Hospital
³Research Fellow of the Japan Society for the Promotion of Science
⁴Department of Clinical Laboratory, Sapporo City General Hospital
⁵Faculty of Pharmaceutical Sciences, Health Sciences University of Hokkaido
- P17 **Direct Analysis of Lipid Molecular Species from Body Fluids on Segmented Membrane and Localized Spots on Tissue Slices by Liquid Extraction Surface Analysis (LESA) with Nano-ESI**
 Ryo Taguchi, Syuji Funane, Yoshiki Mizuno, Akihiro Mizuno, Mana Yamaguchi,
 Miho Goto
 Department of Biomedical Sciences, College of Life and Health Sciences,
 Chubu University.
- P18 **Development of Separation Method of Lipid Mediators by LC/MS/MS**
 Daisuke Saigusa, Kanako Shiba, Asuka Inoue, Kotaro Hama, Junken Aoki,
 Naoto Suzuki, Yoshihisa Tomioka
 Pharmacy Practice and Sciences, Graduate School of Pharmaceutical Sciences,
 Tohoku University
- P19 **α -Tocopherol Suppresses Lipid Peroxidation and Behavioral and Cognitive Impairments in the Ts65Dn Mouse Model of Down Syndrome**
 Mototada Shichiri^{1,2}, Noriko Ishida¹, Yoshihisa Hagihara¹, Yasukazu Yoshida¹,
 Hiroshi Tamai², Etsuo Niki¹
¹Health Research Institute, National Institute of Advanced Industrial Science and
 Technology (AIST), Osaka, Japan
²Department of Pediatrics, Osaka Medical College, Osaka, Japan
- P20 **Relationships Between Acyl-CoA Synthetase Activities and Acyl-CoAs in Each Portion of Mouse Brain**
 Hiromi Kawakami, Jun Kashima, Masuyama Teiichi, Kazuo Nakamoto,
 Shougo Tokuyama, Fumiyo Kasuya
 Faculty of Pharmaceutical Sciences, Kobegakuin University

- P21 The Supersensitive MS Detection Method of Glycopeptides Derived from Serum Biomarker by Using of Pyrene Labeling.**
Toshio Nakamura¹, Kazuko Hirose² and Junko Amano^{1,2}
¹GD project Lab., The Noguchi Institute
²Lab. of Glycobiology, The Noguchi Institute
- P22 Development of High Quality Method for Discovery and Verification of Low Abundance Biomarker Peptides in Serum**
Tatsuya Saito¹, Yusuke Kawashima^{1,2}, Satoru Minamida³, Kazumasa Matsumoto³, Masatsugu Iwamura³, Shiro Baba³, Yoshio Koderu^{1,2,4}
¹Laboratory of Biomolecular Dynamics, Department of Physics, School of Science, Kitasato University
²Center for Disease Proteomics, School of Science, Kitasato University
³Department of Urology, School of Medicine, Kitasato University
⁴Clinical Proteomics Research Center, Chiba University Hospital
- P23 Molecular Diagnosis Program for Congenital Disorders of Glycosylation: Report 4. Approach to Mucin-Type O-Glycosylation Defects**
Yoshinao Wada¹, Machiko Kadoya¹, Nobuhiko Okamoto²
¹Molecular Medicine, Osaka Medical Center and Research Institute for Maternal and Child Health
²Medical Genetics, Osaka Medical Center and Research Institute for Maternal and Child Health
- P24 A Proteomix Study of Nosal Polyps in Aspirin-Induced Asthma**
Yukie Tanaka¹, Dai Susuki², Shigeharu Fujieda², Yutaka Fujii¹
¹Department of Molecular Biology and Chemistry, Faculty of Medical Sciences, University of Fukui
²Department of Otorhinolaryngology Head & Neck Surgery, Faculty of Medical Sciences, University of Fukui
- P25 Identification of Binding Proteins with A Novel Tamoxifen Analog Ridaifen-G**
Yoji Yoshimi¹, Manami Hatori¹, Yuko Tomomitsu¹, Ayaka Funakoshi¹, Toshifusa Toda², Takashi Yamamoto¹, Kenya Nakata³, Yuta Tosaki³, Yanwen Wang³, Isamu Shiina³, Masahiko Ikekita¹
¹Department of Applied Biological Science, Tokyo University of Science
²Concurrent TMIG Proteomics Collaboration Center, Tokyo Metropolitan Institute of Gerontology
³Department of Applied Chemistry, Tokyo University of Science
- P26 Identification of Candidate Colon-Related Biomarker in Patients' Sera by the Autoantibodiomics**
Fujita Mikiyoshi¹, Toyofumi Nakanishi², George Bruce¹, Soichiro Tsunemi¹, Takashi Nirasawa³ and Takayuki Takubo²
¹Department of General and Gastroenterological Surgery, Osaka Medical College
²Clinical and Laboratory Medicine, Osaka Medical College
³Bruker Daltonics K.K.
- P27 Proteomic Analysis of Human Carotid Arteries and Atherosclerotic Plaques**
Masaya Ikegawa¹, Hatsue Ueda², Takashi Shimada³, Tetsuo Iida³, Hideshi Fujiwake³, Koji Iihara⁴
¹Department of Genomic Medical Sciences, Kyoto Prefectural University of Medicine
²Department of Pathology, National Cerebral and Cardiovascular Center
³Life Science Research Center, Shimadzu Corporation
⁴Department of Neurosurgery, National Cerebral and Cardiovascular Center

- P28 **Imaging Mass Spectrometric Analyses of Fresh Frozen Skin Section of Pathological Diagnosis**
Naoko Goto-Inoue¹, Yoshikazu Uchida², Kimiko Nakajima³, Shigetoshi Sano³, Mitsutoshi Setou¹
¹Department of Cell Biology and Anatomy, Hamamatsu University, School of Medicine
²University of California San Francisco
³Department of Dermatology Kochi University
- P29 **Fundamental Examinations for the Comparative Analysis of Protein Expression using Mouse Brain Tissue Section by MALDI-Imaging**
Kiyonaga Fujii¹, Makoto Higuchi², Tetsuya Suhara², Yuichi Sugiyama³, Zenzaburo Tozuka¹
¹ADME&Tox. Research Institute, Sekisui Medical Co., Ltd.
²Molecular Imaging Center, National Institute of Radiological Sciences
³Graduate School of Pharmaceutical Sciences, The University of Tokyo
- P30 ***In vivo* Flux Analyses of Human Colon Cancer Metastasis in Livers of Superimmunodeficient NOG mice**
Akiko Kubo¹, Mitsuyo Ohmura¹, Takako Hishiki¹, Masatoshi Wakui², Kiyoshi Ogawa³, Mitsutoshi Setou⁴ and Makoto Suematsu^{1,5}
¹Biochemistry, Keio University, ²Laboratory Medicine, Keio University,
³Shimadzu Corporation,
⁴Hamamatsu University School of Medicine
⁵ERATO Suematsu Gas Biology Project
- P31 **Localized Antigen Retrieval Method Improves Sensitivity of Mass Spectrometry Imaging Analysis using FFPE Sections.**
Yutaka Aoki^{1,2}, Yukari Umino^{1,2}, Takashi Shimada^{1,2}, Atsuhiko Toyama^{1,2}, Chikage Aoki^{1,2}, Taka-Aki Sato^{1,2}
¹Life Sci. Res. Ctr, Shimadzu Corporation
²Div. Adv. Clinic. Proteomics, Inst. Med. Sci., Univ. Tokyo
- P32 **Proteomic Profiling of the Glomerulus of Human Kidney by Imaging Mass Spectrometry**
Hiroko Odani¹, Miyuki Ito¹, Toyofumi Nakanishi², Satoshi Sugiyama³, Yukio Yuzawa¹
¹Fujita Health University School of Medicine, Department of Nephrology,
²Osaka Medical College
³Kanayama Clinic
- P33 **Fundamental Examinations for the Serially Chronological Monitoring and Traceability of Nicotine in Longitudinal Sliced-Hair by MALDI-Imaging**
Shinichi Wada², Toyofumi Nakanishi¹, Takashi Nirasawa³, Minako Ito¹, Teruo Ueno⁴, Takayuki Takubo^{1,2}
¹Department of Clinical and Laboratory Medicine, ⁴Central Research Laboratory, Osaka Medical College
²Clinical Laboratory, Osaka Medical College Hospital
³Bruker Daltonics K.K
- P34 **Identification of Amyloid-Related Protein of a Formalin-Fixed and Paraffin-Embedded Lung Tissue Section of Amyloidosis by MALDI-Imaging**
Minako Ito¹, Toyofumi Nakanishi¹, Takashi Nirasawa², Motomu Tsuji³, Takayuki Takubo¹
¹Department of Clinical and Laboratory Medicine, Osaka Medical College
²Bruker Daltonics K.K
³Division of Clinical Pathology, Osaka Medical College Hospital

P35 Fundamental Examinations for the Pathological Diagnosis using Fresh- and Formalin-Fixed Tissue Sections by MALDI-Imaging

Hitoshi Ueda¹, Toyofumi Nakanishi², Takashi Nirasawa³, Minako Ito², Takayuki Takubo^{1,2}

¹Clinical Laboratory, Osaka Medical College Hospital

²Department of Clinical and Laboratory Medicine, Osaka Medical College

³Bruker Daltonics K.K.

P36 Examinations for Detection and Visualization of Neurotransmitters using MALDI-Imaging Mass Spectrometry

Ikuko Yao^{1,2}, Yuki Sugiura^{2,3}, Nobuhiro Zaima⁴, Mitsutoshi Setou⁴, Seiji Ito¹

¹Department of Medical Chemistry, Kansai Medical University

²PRESTO program in Japan Science and Technology Agency

³Department of Biochemistry, Keio University

⁴Department of Cell Biology and Anatomy, Hamamatsu University School of Medicine

12:00-12:30 Luncheon Seminar <Board Meeting>

Clinical Utility of Procalcitonin for Diagnosis of Sepsis

Michiko Horie

Roche Diagnostics K.K.

12:30-13:00 JSBMS General Meeting

13:00-14:15 Symposium 1 “Current Topics of MS to Forensic Toxicology”

Organizer: Hitoshi Tsuchihashi (Osaka Medical College)

S1-1 Forensic Toxicological Analysis by Using MALDI-MS and SALDI-MS

Osamu Ohtsuru¹, Hikoto Ohta¹, Daisuke Watanabe¹ and Takashi Asano²

¹National Research Institute of Police Science

²Forensic Science Laboratory, MPD

S1-2 Investigation of Toxicity Biomarkers for Methamphetamine Using Mass Spectrometry-Based Metablonics

Noriaki Shima¹, Izuru Miyawaki², Kiyoko Bando², Hiroshi Horie², Kei Zaitsumi¹, Munehiro Katagi¹, Takeshi Bamba³, Hitoshi Tsuchihashi⁴, Eiichiro Fukusaki³

¹Forensic Science Laboratory, Osaka Prefectural Police Headquarters

²Dainippon Sumitomo Pharma. Co., Ltd.

³Department of Biotechnology, Graduate School of Engineering, Osaka University

⁴Department of Legal Medicine, Osaka Medical College

S1-3 Preliminary Study on Sudden Death Involving the Inhalation of 1,1-Difluoroethane (HFC-152a): Biodistribution of HFC-152a in the Rat after Repeated Exposure

Kazuo Igarashi^{1,2}

¹Department of Legal Medicine, Graduate School of Medicine, Osaka University

²Association of Analytical Medicine

**14:20-17:40 Plenary Lectures
(Joint with the 59th Annual Conference on Mass Spectrometry)**

L1

Chair: Ikuya Yano

Pathogenesis and Therapeutic Approaches in Systemic Amyloidosis

Shu-ichi Ikeda

Department of Medicine (Neurology and Rheumatology), Shinshu University School of Medicine

- L2 Chair: Toshifumi Takao
Past and Future Trends of Biomedical Applications: Measurement of Quality or Quantity
Yoshinao Wada
Osaka Medical Center and Research Institute for Maternal and Child Health
- L3 Chair: Toyofumi Nakanishi
Imaging Mass Spectrometry: Current Performances and Upcoming Challenges
Pierre Chaurand
Department of Chemistry, University of Montreal
- L4 Chair: Shigeo Hayakawa
Tandem Mass Spectrometry in Clinical Enzymology: Towards Newborn Screening of Lysosomal Storage Disorders
Frantisek Turecek, Michael Gelb, C. Ronald Scott
Department of Chemistry, University of Washington

18:00-20:00 Banquet

AWARD Ceremony (Excellent Poster Presentation)

September 16 (Friday)

9:00-9:40

Oral Session 3

Organizer: Ryo Taguchi (Cubu University)

- O3-1 **Analysis of Post-Translational Modification of Indoleamine 2,3-Dioxygenase by 2D-LC/MS**
Hidetsugu Fujigaki¹, Mitsuru Seishima², Sanford P Markey³, Kuniaki Saito⁴
¹Faculty of Health Sciences, Hiroshima International University
²Department of Informative Clinical Medicine, Gifu University Graduate School of Medicine
³National Institute of Mental Health, National Institutes of Health
⁴Human Health Sciences, Kyoto University Graduate School of Medicine
- O3-2 **Extensive Analysis of Chondroitin Sulfate in Articular Cartilage by Mass Spectrometry**
Harumi Osago¹, Tomoko Shibata², Suguru Kuwata³, Nobumasa Hara¹, Kazuo Yamada¹, Yuji Uchio³, Mikako Tsuchiya¹
¹Department of Biochemistry, Shimane University, Faculty of Medicine
²The Center for Integrated Research in Science, Shimane University.
³Department of Orthopedic Surgery, Shimane University, Faculty of Medicine
- O3-3 **Studies for Lipid Hydroperoxides and Plasmalogens by LC/MS**
Shu-Ping Hui¹, Yudai Taguchi¹, Takao Kurosawa², Hitoshi Chiba¹
¹Faculty of Health Sciences, Hokkaido University
²Faculty of Pharmaceutical Sciences, Health Sciences University of Hokkaido

9:45-11:00

Symposium 2

“New Applications of MS Techniques to Clinical Microbiology”

Organizer: Fumio Nomura (Chiba University)

- S2-1 **Rapid Identification and Discrimination of Microorganisms using MALDI/TOFMS: Focusing on Taxonomic Aspect**
Hiroko Kawasaki and Ken-ichiro Suzuki
Biological Resource Center, National Institute of Technology and Evaluation
- S2-2 **Elaborate MALDI-TOF MS-Based Identification of Micro-Organisms**
Keisuke Shima
SHIMADZU Corporation
- S2-3 **Clinical Application of Rapid Bacterial Identification Methods using Mass Spectrometry—Reports from Clinical Laboratory Using BioTyper System—**
Kazuyuki Sogawa¹, Masaharu Watanabe² and Fumio Nomura^{1,2,3}
¹Clinical Proteomics Research Center, Chiba University Hospital
²Department of Clinical Laboratory, Chiba University Hospital
³Department of Molecular Diagnosis, Graduate School of Medicine, Chiba University

11:05-12:20

Symposium 3 “New Development of Imaging Mass Spectrometry”

Organizer: Mitsutoshi Setou

- S3-1 **Observation of Vascular Wall Using Imaging Mass Spectrometry**
Nobuhiro Zaima
Department of Applied Biological Chemistry, Kinki University
- S3-2 **Visualization of Cellular Metabolism on The Brain Tissue Section by MALDI-Imaging**

Yuki Sugiura
Department of Biochemistry, School of medicine, Keio University
PRESTO, Japan Science and Technology Agency

S3-3 Imaging Mass Spectrometry of Herbal Medicine (*Panax ginseng*)

Shu Taira

JAPAN Advanced Institute of Science and Technology, School of Material Science

12:25-13:10 Luncheon Seminar

Inflammatory Markers used properly? Especially, difference between CRP (C-Reactive Protein) and SAA (Serum Amyloid A Protein).

Makoto Sakuma

Science Promotion 1st Department Market Corresponding Division

Sales Management Office.

EIKEN CHEMICAL Co.Ltd.

13:15-14:30 Workshop 1

”Up-to-Date of MS Technology and its Associate Technique”

Organizer: Shigeo Ikegawa, Kuniaki Saito

WS1-1 Fundamentals and Applications of Laser Microdissection in Proteome Analysis

Ken-ichi Watanabe

Technical Sales Department, Research/Clinical Division, Leica Microsystems K.K.

WS1-2 Development of A Novel Material Focusing on Bio-Detection, Amorphous Carbon-Applications to Bio-Chips and Sample Trays for MALDI-TOF-MS

Kiyoshi Nokihara¹, Akiyoshi Hirata¹, Takafumi Ohyama¹, Tetsuya Sogon¹,

Yasushi Takebayashi², Ryo Morishita², Yasuo Oka²

¹HiPep Laboratories

²Nippon Light Metal Company, Ltd.

WS1-3 Latest Imaging Mass Spectrometry

Takashi Nirasawa, Yumiko Matsuyama, Toshiji Kudo, Kazunori Saito

Bruker Daltonics K.K.

14:35-16:00 Workshop 2

“Applications of MS Techniques: Q&A for Good Qualities of MS Data”

Organizer: Takeshi Kasama, Toshie Takahashi

WS2-1 Analytical considerations for clinical proteomics by nanoLC-ESI-IT-MS

Sadamu Kurono^{1,2}, Yuka Kaneko^{1,2} and Shuji Matsuura¹

¹Laboratory of Molecular Signature Analysis, Division of Health Sciences, Osaka University Graduate School of Medicine

²Wako Pure Chemical Industries, Ltd.

WS2-2 Fundamentals for matrix-assisted laser desorption/ionization mass spectrometry (MALDI-MS)

Tohru Yamagaki

Suntory Institute for Bioorganic Research

WS2-3 Tips for successful ESI-LC/MS/MS analysis

Masayuki Kubota

Thermo Fisher Scientific K.K. Japan

WS2-4 Application Example of MALDI-TOFMS

Takashi Nirasawa, Yumiko Matsuyama, Toshiji Kudo, Kazunori Saito
Bruker Daltonics K.K.

16:00 Closing Remarks

The 36th Annual Meeting of the Japanese Society for Biomedical Mass Spectrometry

President of the 36th Annual Meeting: Toyofumi Nakanishi, Ph.D.
Associate Professor, Department of Clinical and Laboratory Medicine,
Osaka Medical College
2-7 Daigaku-cho, Takatsuki-city, Osaka 569-8686, Japan
Tel: +81-72-683-1221 Fax: +81-72-684-6548
E-mail: jsbms36@art.osaka-med.ac.jp

Japanese Society for Biomedical Mass Spectrometry

President: Tomiko Kuhara, Ph.D.
Professor, Division of Human Genetics, Medical Research Institute
Kanazawa Medical University
Uchinada, Kahokugun, Ishikawa 920-0293, Japan
Tel: +81-76-286-2464 Fax: +81-76-286-3358
URL: <http://www.jsbms.jp/english/>
