

DAY1 : Oct.12 (Thu)

Hall 1

8 : 50 ~ Opening Remarks

9 : 00 ~ 10 : 00 Oral1 : Lysosome 1

Chairperson: Norio Sakai

(Child Healthcare and Genetic Science Laboratory,
Division of Health Science, Osaka University Graduate School
of Medicine)

Hiroshi Kobayashi

(Division of Gene Therapy, Research Center of Medical
Genetics, Department of Pediatrics, The Jikei University
School of Medicine)

O-1 Development of drug screening system using iPS cells derived from a patient with Gaucher disease type II.

○Jun Kido¹, Tadahiro Numakawa², Shirou Matsumoto¹, Haruki Odaka², Minami Soga²
Ryutarou Kajihara², Fumio Endo¹, Kimitoshi Nakamura¹, Takumi Era²

¹Department of Pediatrics, Kumamoto University

²Cell Modulation, Institute of Molecular Embryology and Genetics

O-2 A pathological study of the bone lesions in Gaucher disease

○Kazuya Tsuboi, Hiroshi Yamamoto, Hiromi Goto
LSD Center, Nagoya Central Hospital

O-3 Methylation studies of CpG islands in GLA gene: best clinical phenotype predictor for heterozygous Fabry female

○MOHAMMAD ARIF HOSSAIN, Chen Wu, Takashi Miyajima, Hiroko Yanagisawa
Keiko Akiyama, Takeo Iwamoto, Yoshikatsu Eto

Advanced Clinical Research Center, Institute of Neurological Disorders

✿ **O-4 Tandem mass spectrometry but not fluorimetry readily distinguishes Pompe-affected patients from pseudodeficiency in dried blood spots.**

○Hsuan-Chieh Liao¹, Hsiao-Jan Chen¹, Chuan-Chi Chiang¹, Michael H. Gelb²

¹Chinese Foundation of Health, newborn screening center

²University of Washington, Department of Chemistry

O-5 Newborn screening for Mucopolysaccharidosis type II in Taiwan: A One-and-a-half year Report.

○Hsiao-Jan Chen¹, Min-Ju Chan¹, Mei-Ying Liu¹, Shuan-Pei Lin², Arun Babu Kumar³

Michael H. Gelb³, Chuan-Chi Chiang¹

¹Neonatal Screening Center, The Chinese Foundation of Health

²MacKay Memorial Hospital, Taipei, Taiwan

³Department of Chemistry, University of Washington

10 : 00 ~ 10 : 48 Oral2 : Lysosome 2

Chairperson: Kimitoshi Nakamura

(Department of Pediatrics, Graduate School of Medical Sciences,
Kumamoto University)

Motomichi Kosuga

(Division of Medical Genetics, National Center for Child Health
and Development)

O-6 Evaluation of the efficacy and safety of a new drug candidate for Niemann-Pick disease type C

○Minami Soga¹, Jun Kido², Takumi Era¹

¹Department of Cell Modulation, IMEG, Kumamoto University

²Department of Pediatrics, Graduate School of Medical Sciences, Kumamoto University

O-7 Development of chemical diagnosis for Niemann-Pick disease type C by 5 urinary conjugated abnormal bile acids

○Masamitsu Maekawa¹, Isamu Jinnou², Aya Narita³, Hiroaki Yamaguchi¹, Mano Nariyasu¹

¹Department of Pharmaceutical Sciences, Tohoku University Hospital

²Department of Pharmaceutical Sciences, Tohoku University

³Department of Child Neurology, Tottori University, Faculty of Medicine

O-8 Hematopoietic Stem Cell Transplantation for Patients with Mucopolysaccharidosis II

○Shunji Tomatsu^{1,2}, Francyne Kubaski¹, Hiromasa Yabe³, Yasuyuki Suzuki⁴, Toshiyuki Seto⁵
Takashi Hamazaki⁵, Seiji Yamaguchi⁶, Kenji E. Orii⁷, Tadao Orii⁷

¹Nemours/Alfred I. duPont Hospital for Children

²Departments of Biomedical Research and Orthopedics

³Department of Cell Transplantation and Regenerative Medicine, Tokai University School of
Medicine

⁴Medical Education Development Center, Gifu University Medical Education Development Center,
Gifu University

⁵Department of Pediatrics, Osaka City University Graduate School of Medicine

⁶Department of Pediatrics, Shimane University

⁷Department of Pediatrics, Graduate School of Medicine, Gifu University

O-9 Analysis of safety of pentosan polysulphate in young patients with mucopolysaccharidosis type VI

○Mahoko Furujo¹, Kenji Orii², Shunji Tomatsu³, Yasuyuki Suzuki⁴, Toshiyuki Fukao⁵

¹Department of Pediatrics, NHO Okayama Medical Center

²Division of Neonatal intensive Care Unit, Gifu University Hospital

³Nemours/Alfred I, duPont Hospital for Children

⁴Medical education development Center, Gifu University

⁵Department of Pediatrics, Gifu graduate school of medicine

10 : 48 ~ 11 : 36 Oral3 : Lysosome 3

Chairperson: Tsutomu Takahashi

(Department of Pediatrics, Akita University Graduate School of Medicine)

Hiroshi Mochizuki

(Saitama Children's Medical Center)

O-10 Clinical, biochemical and molecular characterization of 8 patients with mucopolipidosis

○Mari Asakura¹, Yasuyuki Fukuhara¹, Motomichi Kosuga¹, Torayuki Okuyama²

¹Division of Medical Genetics, National Center for Child Health and Development

²Department of Clinical Laboratory Medicine, National Center for Child Health and Development

O-11 The clinical profile in Japanese cystinosis patients and the treatment effect of cysteamine.

○Moe Akahira¹, Yukiko Shimizu², Yoshiaki Okuma³, Tadashi Okamura², Toshihiro Ohura⁴

¹Division of Medical Genetics, Kanagawa Children's Medical Center

²Department of Laboratory Animal Medicine, Research Institute, National Center for Global Health and Medicine

³Department of Pediatrics, National Center for Global Health and Medicine

⁴Division of Pediatrics, Sendai City Hospital

O-12 Therapeutic potency of teprenone in comprehensive lysosomal storage diseases

○Yohta Shimada¹, Natsumi Ishii¹, Hiroo Hoshina², Takashi Higuchi¹, Hiroshi Kobayashi¹

Hiroyuki Ida², Toya Ohashi¹

¹Div. of Gene Therapy, Res. Cent. for Med. Sci. Jikei Univ. Sch. of Med.

²Dept. of Pediatrics, Jikei Univ. Sch. of Med.



O-13 Mucopolysaccharidosis-plus syndrome: A report of new type of MPS

○Hidehito Kondo¹, Takanobu Otomo², Nadezda Maksimova³, Norio Sakai¹, Keiichi Ozono¹

¹Department of Pediatrics, Osaka University Graduate School of Medicine

²Department of Pathophysiology and Metabolism, Kawasaki Medical School

³Laboratory of Genome Medicine, Clinics of Medical Institute,

North East Federal University

11 : 40 ~ 12 : 30 Sponsored Seminar 1

Chairperson: Haruo Shintaku

(Department of Pediatrics, Osaka City University, Graduate School of Medicine, Osaka Japan)

Development of Novel Therapy for Central Nervous System Involvement of lysosomal Storage Diseases

Torayuki Okuyama

Department of Clinical Laboratory Medicine, Center for Lysosomal Storage Diseases, National Center for Child Health and Development, Tokyo, Japan

13 : 50 ~ 14 : 20 JSIMD Annual General Meeting

14 : 20 ~ 14 : 50 JSIMD Award Lecture

Chairperson: Fumio Endo

(Kumamoto-Ezuko Medical Center for The Severely Disabled)

Study on molecular genetics, diagnosis and treatment of trace element disorders

Hiroko Kodama

Department of Health and Dietetics, Faculty of Health and Medical Sciences, Teikyo Heisei University

15 : 00 ~ 16 : 00 Special Lecture 1

Chairperson: Akira Ohtake

(Department of Pediatrics, Saitama Medical University)

Citrin deficiency -Fateful encounter-

Takeyori Saheki

Department of Hygiene and Health Promotion Medicine, Kagoshima University Graduate School of Medical and Dental Sciences

16 : 10 ~ 17 : 10 Educational Lecture 2

Chairperson: Torayuki Okuyama

(Department of Clinical Laboratory Medicine,
Center for Lysosomal Storage Diseases,
National Center for Child Health and Development)

Molecular diagnostics of Inherited Metabolic Diseases via RNA sequencing

Holger Prokisch

Technical University Munich, Helmholtz Zentrum München

17 : 20 ~ 18 : 50 Symposium 1: Mitochondrial disorder - basic researches for understanding the disorder

Organizer: Masakazu Kohda

(Intractable Disease Research Center, Juntendo University
Division of Translational Research, Research Center for
Genomic Medicine, Saitama Medical University)

S1-1 Mitochondrial Dynamics in Aging and Disease

○Takeshi Tokuyama, Shigeru Yanagi

Dept. of life Sci., Tokyo univ. of Pharm. and Life sci.

S1-2 Reverse genetic studies on mitochondrial DNAs with pathogenic mutations in mice

Kazuto Nakada

Faculty of Life and Environmental Sciences, University of Tsukuba

S1-3 Challenging to mitochondrial gene therapy by MITO-Porter, a nano device for mitochondrial drug delivery

○Yuma Yamada, Hideyoshi Harashima

Faculty of Pharmaceutical Sciences, Hokkaido University

DAY1 : Oct.12 (Thu)

Hall 2

9 : 00 ~ 10 : 00 Oral4 : Screening

Chairperson: Nobuyuki Ishige

(Division of Newborn Screening, Tokyo Health Service Association)

Masaki Kanazawa

(Chiba Kaihin Municipal Hospital)

O-14 Multi-plex LSD enzyme assay using mass spectrometry

○Ryuichi Mashima, Mari Ohira, Akiya Tatsumi, Torayuki Okuyama
National Center for Child Health and Development

O-15 Development of screening test method for Hypophosphatasia using dried blood spot

○Fumio Endo¹, Shinichiro Yoshida², Kousuke Kumeda², Kimitoshi Nakamura³
¹Kumamoto Ezuko Ryoiku Iryo Center
²Newborn screening center, The Chemo-Sero-Therapeutic Research Institute
³Dep Ped, Grad Schl of Med, Univ Kumamoto

O-16 Clinical applications of NGS for the diagnosis of different genetic diseases and newborn screening

○JIN-SUNG LEE¹, Hyunjoo Lee¹, Cheol-Ho Lee¹, Yangrae Cho², Jongsun Jung², Yoon Hee Ko¹
¹Department of Pediatrics, Yonsei University College of Medicine
²Syntekabio, Inc., Seoul, KOREA

O-17 Mass screening for VLCAD deficiency in Tokyo; Results and study for the future

○Nobuyuki Ishige¹, Kazuhiro Watanabe¹, Satomi Hasegawa¹, Kaoru Konishi¹
Michiko Mashita¹, Sera Yasumi¹, Mika Ishige², Misao Owada¹
¹Division of Newborn Screening, Tokyo Health Service Association
²Department of Pediatrics and Child Health, Nihon University School of Medicine

O-18 Fatty acid oxidation disorders and sudden unexpected death in infancy: Is neonatal tandem mass screening system useful?

○Masato Arai¹, Taro Yamazaki¹, Hiroko Harashima¹, Aya Takada², Kazuyuki Saito²
Yosuke Shigematsu³, Keiichi Hara⁴, Go Tajima⁵, Akira Ohtake¹
¹Department of Pediatrics, Saitama Medical University Hospital
²Department of Forensic Medicine, Saitama Medical University
³Department of Health Science, Faculty of Medical Sciences, University of Fukui
⁴Department of Pediatrics, National Hospital Organization Kure Medical Center
⁵Division of Neonatal Screening, National Center for Child Health and Development

10 : 00 ~ 10 : 48 Oral5 : Organic acid disorders and fatty acid disorders 1

Chairperson: Go Tajima

(Division of Neonatal Screening, Research Institute,
National Center for Child Health and Development)

Masahisa Kobayashi

(Department of Pediatrics, The Jikei University School of Medicine)

O-19 Methylmalonyl-CoA mutase deficiency with early-onset optic atrophy: A case report

○Chikahiko Numakura¹, Shion Hayashi², Osamu Sakamoto³, Kiyoshi Hayasaka^{1,4}

¹Department of Pediatrics, Yamagata University Faculty of Medicine

²Department of Ophthalmology, Yamagata University Faculty of Medicine

³Department of Pediatrics, Tohoku University School of Medicine

⁴Department of Pediatrics, Miyukikai Hospital

O-20 A Case of Combined malonic and methylmalonic aciduria

○Daiki Kondo¹, Wakako Kikuchi¹, Atsuko Noguchi¹, Ikuko takahashi¹, Tsutomu Takahashi¹

Tomoko Uehara², Kenjiro Kosaki²

¹Department of Pediatrics, Akita University School of Medicine

²Center for Medical Genetics, Keio University School of Medicine

✿ **O-21 Phenotypes and genotypes of 52 Chinese patients with propionic acidemia**

○Yi Liu¹, Yuan Ding¹, Dongxiao Li¹, Xiyuan Li¹, Ying Jin¹, Jinqing Song¹, Yao Zhang¹

Yanling Yang¹, Haixia Li², Lili Jiao²

¹Department of Pediatrics, Peking University First Hospital

²Department of Clinical Laboratory, Peking University First Hospital

O-22 Cluster Seizure in A Patient with Methylene tetrahydrofolate Reductase Deficiency due to Novel MTHFR mutation

○Lina Xie, Qian Chen, Shuo Feng, Shuhua Chen, Yingying Mao, Zhijie Gao, Keming Xu

Children`s Hospital Capital Institute of Pediatrics

10 : 48 ~ 11 : 36 Oral6 : Organic acid disorders and fatty acid disorders 2

Chairperson: Hironori Kobayashi

(Department of Pediatrics, Shimane University Faculty of Medicine)

Shigenori Yamamoto

(Shimoshizu National Hospital)

O-23 Insufficient ketogenesis in 3-hydroxybutyrate dehydrogenase (Bdh1) KO mice in fasting test

○Hiroki Otsuka¹, Takeshi Kimura¹, Yasuhiko Ago¹, Mina Nakama², Abdelkreem Elsayed¹
Yuka Aoyama³, Hideo Sasai¹, Hidenori Ohnishi¹, Masatake Osawa⁴, Yusuke Kawashima⁵
Osamu Ohara⁵, Seiji Yamaguchi⁶, Toshiyuki Fukao¹

¹Department of Pediatrics, Graduate School of Medicine, Gifu University

²Division of Clinical Genetics, Gifu University Hospital

³Department of Biomedical Sciences, College of Life and Health Sciences, Chubu University

⁴Department of Regenerative Medicine and Applied Medical Sciences, Graduate School of Medicine, Gifu University

⁵Laboratory for Integrative Genomics, RIKEN Center for Integrative Medical Sciences (IMS)

⁶Department of Pediatrics, Graduate School of Medicine, Shimane University

O-24 Open-label clinical trial of bezafibrate for fatty acid oxidation disorders in Japan

○Kenji Yamada¹, Hideaki Shiraishi², Naoko Asahina², Saki Yokoshiki³, Takashi Miyakoshi³
Kota Ohno³, Toshiyuki Isoe³, Hiroshi Hayashi³, Seiji Yamaguchi¹, Norihiro Sato³

¹Department of Pediatrics, Shimane University Faculty of Medicine

²Department of Pediatrics, Hokkaido University School of Medicine

³Hokkaido University Hospital Clinical Research and Medical Innovation Center

O-25 Expression Analysis of the Recombinant Proteins Related with Human HSD10 Disease

○Hideo Sasai¹, Hidenori Ohnishi¹, Shohei Akagawa², Kazuhisa Akiba³, Yukihiro Hasegawa³
Masahisa Kobayashi⁴, Hiroki Otsuka¹, Yuka Aoyama¹, Toshiyuki Fukao¹

¹Department of Pediatrics, Graduate School of Medicine, Gifu University

²Department of Pediatrics, Kansai Medical University

³Department of Endocrinology and Metabolism, Tokyo Metropolitan Children's Medical Center

⁴Department of Pediatrics, The Jikei University School of Medicine

O-26 Five Japanese cases with glutaric acidemia type II detected by newborn screening

○Kenji Yamada¹, Hironori Kobayashi¹, Yuki Hasegawa¹, Akio Takahashi², Haruo Shintaku³
Hideo Sasai⁴, Toshiyuki Fukao⁴, Seiji Yamaguchi¹, Takeshi Taketani¹

¹Department of Pediatrics, Shimane University Faculty of Medicine

²Department of Pediatrics, Morioka Children's Hospital

³Department of Pediatrics, Osaka City University Faculty of Medicine

⁴Department of Pediatrics, Gifu University School of Medicine

11 : 40 ~ 12 : 30 SLEIMPN Recommending Lecture

Chairperson: Mitsuru Kubota

(Department of General Pediatrics & Interdisciplinary Medicine,
National Center for Child Health and Development)

NGS in the diagnosis of mitochondrial diseases: novel disorders and unexpected phenotypes.

○Jose Abdenur, Mariella Simon, Alex Stover, Shaina Efthekarian

CHOC Children's, Division of Metabolic Disorders. Orange CA, USA/FESEN Buenos Aires, Argentina

12 : 40 ~ 13 : 40 Luncheon Seminar 1

Chairperson: Yoshikatsu Eto

(Advanced Clinical Research Center & Institute for the
treatment of Genetic Disease, Institute of Neurological Disorders)

Treatment strategy for Gaucher Disease

-The Results of VPRIV Extension Study and Therapeutic Goals-

Hiroyuki Ida

Department of Pediatrics, The Jikei University School of Medicine

DAY1 : Oct.12 (Thu)
Hall 3

9 : 00 ~ 11 : 36 Live broadcast : Hall 2

11 : 40 ~ 12 : 10 Educational Lecture 1

Chairperson: Kei Murayama

(Department of Metabolism, Chiba Children's Hospital)

Integrative analysis of transcriptome and cellular bioenergetics profiles

○Vicente Yépez¹, Laura Kremer², Daniel Bader¹, Mirjana Gusic², Holger Prokisch², Julien Gagneur¹

¹Technical University Munich, ²Helmholtz Zentrum München

12 : 40 ~ 13 : 40 Luncheon Seminar 2

Chairperson: Torayuki Okuyama

(Department of Clinical Laboratory Medicine,

Center for Lysosomal Storage Diseases,

National Center for Child Health and Development)

“Pathophysiology of Lysosomal Acid Lipase Deficiency (LAL-D)”

John Jay Gargus

Center for Autism Research and Translation/Genetics and Genomics, Pediatrics, Physiology &

Biophysics University of California, Irvine

DAY1 : Oct.12 (Thu) Poster Exhibition Hall

17 : 20 ~ 18 : 50 Poster Presentation

< Block1 > 17 : 20 ~ 17 : 50 Lysosome 1

Chairperson: Kazuya Tsuboi

(LSD Center, Nagoya Central Hospital)

P-1 Evidence of Mechanism of Action of Migalastat in the Japanese Subgroup of the Phase 3 ATTRACT trial

○Toya Ohashi¹, Ichiei Narita², Norio Sakai³, Takashi Hamazaki⁴, Jay Barth⁵, Hjalmar Lagast⁵
Nina Skuban⁵, Julie Yu⁵, Jeff Castelli⁵, Christopher Viereck⁵

¹Department of Pediatrics, The Jikei University School of Medicine

²Division of Clinical Nephrology and Rheumatology, Niigata University

³Osaka University Graduate School of Medicine, Division of Health Science, Child Healthcare and Genetic Science Laborator

⁴Department of Pediatrics, Osaka City University Graduate School of Medicine

⁵Amicus Therapeutics

P-2 Comparison of variants causing later-onset type Fabry disease with functional polymorphisms

○Masashi Shigenaga¹, Takahiro Tsukimura¹, Atsuko Sato², Seiji Saito³, Tadayasu Togawa¹
Hitoshi Sakuraba²

¹Department of Functional Bioanalysis, Meiji Pharmaceutical University

²Department of Clinical Genetics, Meiji Pharmaceutical University

³Department of Medical Management and Informatics, Hokkaido Information University

P-3 The relationship between vertebral basilar artery findings and hearing functin in Fabry disease

○Hiroshi Yamamoto, Kazuya Tsuboi, Hiromi Goto
LSD Center, Nagoya Central Hospital

P-4 High sensitive TroponinI of 45 Fabry patients

○Hiromi Goto, Kazuya Tsuboi, Hiroshi Yamamoto
Lysosome Center, Nagoya Central Hospital

P-5 Association with methylation and autophagic flux in Fabry disease

○Hiroko Yanagisawa¹, Mohammad Arif Hossain¹, Takashi Miyajima², Keiko Akiyama¹
Yoshikatsu Eto¹

¹Advanced Clinical Research Center, Institute for Neurological Disorders

²Rare Disease Research Center, AnGes

P-6 Study of relations between HDL-Cholesterol and vascular lesions in Fabry disease

○Hiroki Katsuta¹, Kazuya Tsuboi², Hiroshi Yamamoto², Hiromi Goto²

¹Junior Resident, Nagoya Central Hospital

²LSD Center, Nagoya Central Hospital

17 : 50 ~ 18 : 15 Lysosome 2

Chairperson: Eiji Nanba

(Research Center for Bioscience and Technology)

P-7 Mitochondrial functional analysis in the Gaucher's disease patients

○Naomi Kuranobu¹, Aya Narita², Masaru Shimura¹, Makiko Tajika¹, Keiko Ichimoto¹

Ayako Matsunaga¹, Tomoko Tsuruoka¹, Masaki Takayanagi¹, Akira Ohtake³, Kei Murayama¹

¹Department of Metabolism, Chiba Children's Hospital

²Department of Child Neurology, Tottori University

³Department of Pediatrics, School of Medicine Saitama Medical University

P-8 Enzyme replacement therapy and chronological cytokine profile one patient of perinatal-lethal Gaucher's disease

○Takeaki Sasamoto, Masaru Shimura, Yusuke Suganami, Junya Nakajima, Shonosuke Nara

Hiroki Ishii, Daisuke Sunohara, Yasuyo Kashiwagi, Hisashi Kawashima

Department of pediatrics, Tokyo medical University

P-9 Drug development for GM1 gangliosidosis

○Ryutaro Kajihara, Takumi Era

Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto University

P-10 A case of Tay-Sachs disease difficult to distinguish from acute encephalopathy

○Naoto Iwanami, Daisuke Azuma, Hiroko Suzuki, Asako Arai, Tamotsu Matsunaga

Todachuo General Hospital

P-11 The case of late onset Tay-Sachs disease, subtle hyperacusis led the diagnosis

○Mihoko Sakurai¹, Junji Azuma¹, Yusuke Hamada², Eri Kizima¹, Koji Tominaga³

Yoshimi Mizoguchi¹, Tunesuke Shimotuji¹, Takehisa Yamamoto¹, Norio Sakai³

¹Department of Pediatrics, Minoh City Hospital

²Department of Pediatrics, Japan Community health care organization Osaka hospital

³Department of Pediatrics, Osaka University hospital

18 : 15 ~ 18 : 45 Lysosome 3

Chairperson: Toju Tanaka

(Center for Genetics & Metabolic Disorder and Clinical Research
National Hospital Organization Hokkaido Medical Center)

P-12 MLPA analysis for Japanese Krabbe patients without mutation in direct sequence for detection of deletion mutation

○Kaori Miyana¹, Hidehito Kondo¹, Keiichi Ozono¹, Norio Sakai²

¹Division of Pediatrics, Osaka University Graduate School of Medicine

²Division of Health Science, Osaka University Graduate School of Medicine

P-13 Clinical and molecular analysis of six novel GALC mutations identified in 9 Chinese children with Krabbe disease

○Lifang Dai, Tongli Han, Xinying Yang, Xu Wang, Jiuwei Li, Junlan Lu, Wuchang Zhang
Xiaotun Ren, Fang Fang

Department of Neurology, Beijing Children's Hospital, Capital Medical University

P-14 Late Infantile Neuronal Ceroid Lipofuscinoses Due to Novel CLN5 Variants In a Chinese Family

○Xiaotun Ren, Fang Fang, Husheng Wu, Zhimei Liu

Department of Neurology, Beijing Children's Hospital, Capital Medical University, National
Center for Children's Health, Beijing, China

P-15 Modeling the neuronal dysfunction in sialidosis using patient-derived iPSCs

○Haruki Odaka¹, Tadahiro Numakawa², Minami Soga², Jun Kido³, Ryutarō Kajihara⁴
Toshika Okumiya⁴, Hirokazu Furuya⁵, Takafumi Inoue¹, Takumi Era²

¹Department of Life Science and Medical Bioscience, School of Advanced Science and
Engineering, Waseda University

²Department of Cell Modulation, Institute of Molecular Embryology and Genetics, Kumamoto
University

³Department of Pediatrics, Graduate School of Medical Sciences, Kumamoto University

⁴Department of Biomedical Laboratory Sciences, Faculty of Life Science, Kumamoto University

⁵Department of Neurology, Kochi Medical School, Kochi University

P-16 A summary of the lysosomal enzyme assay for patients with leukodystrophy in our facility

○Sachiko Nakaoka¹, Toko Shibuya¹, Kaori Miyana¹, Hidehito Kondo¹, Norio Sakai²
Keiichi Ozono¹

¹Department of Pediatrics, Osaka University Graduate School of Medicine

²Division of health science, Osaka University Graduate School of Medicine

P-17 Newborn screening for pompe disease in northern Kawasaki city

○Ohsuke MIGITA¹, Kojima Takahiro², Yusuke Miyaji², Yusaku Miyamoto², Isamu Hokuto¹
Motomichi Kosuga³, Torayuki Okuyama³, Hitoshi Yamamoto¹

¹Department of Pediatrics, St. Marianna University School of Medicine

²Division of Pediatrics, Kawasaki Municipal Tama Hospital, St. Marianna University School of
Medicine.

³Center for Lysosomal Storage Diseases, National Center for Child Health and Development

< Block2 > 17 : 20 ~ 17 : 50 Lysosome 4

Chairperson: Yusuke Hamada

(Japan community health care organization Osaka hospital)

- P-18 CSF heparan sulfate is a useful CNS biomarker for Mucopolysaccharidosis Type II**
○Sachiho Kida, Noboru Tanaka, Hideto Morimoto
Research Division, JCR Pharmaceuticals Co., Ltd.
- P-19 Case report: Elosulfase alfa enzyme replacement therapy in a Japanese patient with Morquio A syndrome**
○Misako Hiramatsu¹, Kimitoshi Nakamura²
¹Division of Pediatrics, Nishibeppu National Hospital
²Department of Pediatrics, Kumamoto University Hospital
- P-20 Case report: 10-year enzyme replacement therapy in Japanese siblings with mucopolysaccharidosis VI**
○Mahoko Furujo¹, Motomichi Kosuga², Torayuki Okuyama²
¹Department of Pediatrics, National Okayama Medical Center
²Center for Lysosomal Storage Diseases, National Center for Child Health and Development
- P-21 Influence of mannose-6-phosphate content on iduronate-2-sulfatase in enzyme replacement therapy in mice.**
○Tomoki Fukatsu, Atsushi Imakiire, Sachiho Kida, Masafumi Kinoshita, Satowa Tanaka
Hiroyuki Sonoda
Biopharmaceutical Innovation Research Institute, Research Division, JCR Pharmaceuticals Co., Ltd
- P-22 Brain targeted high dose enzyme replacement therapy with immune tolerance induction in a murine model of MPS II**
○Kentaro Yokoi¹, Takayuki Yokoi¹, Shimada Yohta², Higuchi Takashi², Hiroshi Kobayashi²
Toya Ohashi², Hiroyuki Ida¹
¹Department of Pediatrics, The Jikei University School of Medicine
²Division of Gene Therapy, Research Center for Medical Sciences, The Jikei University School of Medicine
- P-23 Clinical features of mucopolysaccharidosis type VII "Case series in Japan"**
○Saki Kasuga¹, Kadono Chiho¹, Satoshi Kudoh², Hidetomi Terai³, Seto Toshiyuki¹
Takashi Hamazaki¹, Haruo Shintaku¹
¹Department of Pediatrics, Osaka City University Graduate School of Medicine, Osaka City University
²ATOX Co.,Ltd
³Department of Orthopedic Surgery, Osaka City University Graduate School of Medicine, Osaka City University

17 : 50 ~ 18 : 20 Lysosome 5+Screening 1

Chairperson: Satoshi Ishii

(Department of Matrix Medicine, Faculty of Medicine,
Oita University)

P-24 Glycosaminoglycan Levels in Dried Blood Sopts of Patients of MPS and ML

○Shunji Tomatsu¹, Francyne Kubaski¹, Yasuyuki Suzuki², Kenji Orii³, Robert W. Mason¹
Vũ Chí Dũng⁴, Seiji Yamaguchi⁵, Hironori Kobayashi⁵, Toshiyuki Fukao³, Tadao Orii³

¹Nemours/Alfred I. duPont Hospital for Children

²Medical Education Development Center, Gifu University

³Department of Pediatrics, Graduate School of Medicine, Gifu University

⁴Vietnam National Children's Hospital, Department of Medical Genetics, Metabolism &
Endocrinology

⁵Department of Pediatrics, Shimane University

P-25 LC/MS/MS measurement of glycosaminoglycans in amniotic fluid of a MPS VII fetus

○Shunji Tomatsu¹, Francyne Kubaski¹, Robert W. Mason¹, Roberto Giugliani²

¹Nemours/Alfred I. duPont Hospital for Children, ²Medical Genetics Service, HCPA

P-26 Method for measuring mannose 6-phosphate residue contents of enzyme preparations in Lysosomal diseases

○Minoru Kanzaki¹, Masashi Shigenaga¹, Yuya Tayama¹, Takahiro Tsukimura¹

Tadayasu Togawa¹, Hitoshi Sakuraba²

¹Department of Functional Bioanalysis, Meiji Pharmaceutical University

²Department of Clinical Genetics, Meiji Pharmaceutical University

P-27 Sphingoglycolipid analysis in biological samples using a chiral column

○Yuko Fujiwara, Kotaro Hama, Kazuaki Yokoyama

Faculty of Pharmaceutical Sciences, Teikyo University

P-28 Diagnosis of Niemann-Pick disease type C using new potential biomarkers integrating with multivariate analysis

○Chen Wu¹, Takeo Iwamoto², Hiroko Yanagisawa¹, Keiko Akiyama¹, Takashi Miyajima¹
Junko Igarashi³, Mohammad Arif Hossain¹, Yoshikatsu Eto¹

¹Advanced Clinical Research Center, Institute of Neurological Disorders

²Core Research Facilities for Basic Science, Molecular Cell Biology, The Jikei University School
of Medicine, Tokyo, Japan

³AnGes, Inc.

P-29 Glycosaminoglycan Assay as First-tier for MPS Newborn Screening

○Shunji Tomatsu¹, Francyne Kubaski¹, Akiko Nakatomi², Haruo Shintaku³
Hironori Kobayashi⁴, Seiji Yamaguchi⁴, Yasuyuki Suzuki⁵, Tadao Orii⁶, Toshiyuki Fukao⁶
Adriana M. Montaña⁷

¹Nemours/Alfred I. duPont Hospital for Children

²Department of Pediatrics, Nagasaki University

³Department of Pediatrics, Osaka City University Graduate School of Medicine

⁴Department of Pediatrics, Shimane University

⁵Medical Education Development Center, Gifu University

⁶Department of Pediatrics, Gifu University, ⁷Department of Pediatrics, Saint Louis University

18 : 20 ~ 18 : 45 Screening 2

Chairperson: Yasutsugu Chinen

(Child Health and Welfare (Pediatrics), Faculty of Medicine,
University of Ryukyus)

P-30 Pilot study of newborn screening for mucopolysaccharidosis type I and II

○Ken Momosaki¹, Shinichiro Yoshida², Kousuke Kumeda², Fumio Endo³
Kimitoshi Nakamura¹

¹Department of Pediatrics, Kumamoto University

²Kaketsuken (The Chemo-Sero-Therapeutic Research Institute)

³Kumamoto Ezuko Ryoiku Iryo Center

P-31 Enzymatic screening in Dried Blood Spot (DBS) of Mucopolysaccharidosis type VII

○Takashi Miyajima¹, Jyunko Igarashi², Chen Wu³, Hiroko Yanagisawa¹
Mohammad Arif Hossain¹, Keiko Akiyama¹, Takashi Hamazaki⁴, Takeo Iwamoto⁵
Yoshikatsu Eto¹

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⁵Division of Molecular Cell Biology, Core Research Facilities for Basic Science,
The Jikei University School of Medicine

P-32 Newborn Screening of Neuronal Ceroid lipofuscinosis (NCL) I and II by Dried Blood Spots (DBS)

○Rina Itagaki¹, Keiko Yaginuma¹, Masahiro Endo¹, Keiko Akiyama¹, Hiroko Yanagisawa¹
Takeo Iwamoto², Haruo Shintaku³, Yoshikatsu Eto^{1,4}

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⁴The Jikei University School of Medicine

P-33 Factors to influence Plasma LysoGb3 Levels in Fabry Disease- Age, Sex and Antibody against ERT

○Chen Wu¹, Takeo Iwamoto², Mohammad Arif Hossain¹, Takashi Miyajima¹

Keiko Akiyama¹, Hiroko Yanagisawa¹, Junko Igarashi³, Yoshikatsu Eto¹

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²Core Research Facilities for Basic Science, Molecular Cell Biology, The Jikei University School of Medicine, Tokyo, Japan

³AnGes, Inc.

P-34 Metabolomics-screening of diseases with multiple disturbed organic, amino acid, sugar metabolism

○Tomiko Kuhara, Morimasa Ohse

Japan Clinical Metabolomics Institute

< Block3 > 17 : 20 ~ 17 : 55 Screening 3

Chairperson: Yuki Omura-Hasegawa

(Department of Pediatrics, Shimane University Faculty of Medicine)

P-35 Molecular Diagnosis for Target Metabolic Diseases of Newborn Screening Using a Gene Panel in Japan

○Hideo Sasai¹, Fujiki Ryoji², Ohara Osamu², Nakajima Yoko³, Testuya Ito³

Masahisa Kobayashi⁴, Go Tajima⁵, Osamu Sakamoto⁶, Matsumoto Shiro⁷

Kimitoshi Nakamura⁷, Takashi Hamazaki⁸, Hironori Kobayashi⁹, Yuki Hasegawa⁹

Toshiyuki Fukao¹

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⁵Division of Neonatal Screening, NCCHD

⁶Department of Pediatrics, Tohoku University School of Medicine

⁷Department of Pediatrics, Kumamoto University Graduate School of Medical Sciences

⁸Department of Pediatrics, Osaka City Graduate School of Medicine

⁹Department of Pediatrics, Shimane University Faculty of Medicine

P-36 A case of carnitine deficiency, systemic primary with two previously reported PCCA gene mutation in cis form

○Fusa Nagamatsu¹, Akira Ohtake², Nobuyuki Ishige³, Hironori Kobayashi⁴, Toshiyuki Fukao⁵
Yukihiro Hasegawa¹

¹Department of Endocrinology and Metabolism, Tokyo Metropolitan Children's Medical Center

²Department of Pediatrics, Saitama Medical University

³Tokyo Health Service Association

⁴Department of Pediatrics, Shimane University Faculty of Medicine

⁵Department of Pediatrics, Graduate School of Medicine, Gifu University

- P-37 PCCB monoallelic mutation (Y435C) and low activity of PCC in a Japanese girl with mild form of propionic acidemia**
○Daisuke Sugawara, Ko Ichihashi
Department of Pediatrics, Saitama Medical Center Jichi Medical University
- P-38 High C3 and C3/C2 levels at NBS with increased methylmalonate excretion due to maternal antibody to intrinsic factor**
○Yoko Nakajima¹, Katsuyuki Yokoi¹, Yoshimi Sakai², Tetsushi Yoshikawa¹, Tetsuya Ito¹
¹Department of Pediatrics, Fujita Health University
²Aichi Health Promotion Public Interest Foundation
- P-39 Genetic background of the cases with high C5-OH level**
○Yuki Omura-Hasegawa¹, Hideo Sasai², Osamu Sakamoto³, Hironori Kobayashi¹
Hiroki Otsuka², Ryoji Fujiki⁴, Osamu Ohara⁴, Toshiyuki Fukao²
¹Department of Pediatrics, Shimane University Faculty of Medicine
²Department of Pediatrics, Graduate School of Medicine, Gifu University
³Department of Pediatrics, Tohoku University School of Medicine
⁴Department of Technology Development, Kazusa DNA Research Institute
- P-40 Maternal glutaric acidemia type I detected by expanded newborn screening: First case in Thailand**
○Somporn Liammongkolkul¹, Boonchai Boonyawat², Kasinat Sanomcham¹
Achara Sathienkijkanchai¹, Pornswan Wasant¹, Nithiwat Vatanavicharn¹
¹Division of Medical Genetics, Department of Pediatrics, Faculty of Medicine Siriraj Hospital, Mahidol University
²Division of Genetics, Department of Pediatrics, Phramongkutklo Hospital/College of Medicine, Bangkok, Thailand
- P-41 Incidence and natural history of β -ureidopropionase deficiency based on a NBS study at Kurume University.**
○Natsuko Shibata¹, Yoriko Watanabe^{1,2}, Kaori Fukui², Hiromi Isii¹, Misa Inaba¹
Kyoko Tashiro¹, Kumiko Aoki¹, Yoko Nakajima³, Takahiro Inokuchi¹, Naohisa Uchimura^{1,4}
¹Research Institute of Medical Mass Spectrometry, Kurume University School of Medicine
²Department of Pediatrics and Child Health, Kurume University School of Medicine
³Department of Pediatrics, Fujita Health University
⁴Department of Neuropsychiatry, Kurume University School of Medicine

17 : 55 ~ 18 : 20 Organic acid disorders and fatty acid disorders 1

Chairperson: Ayako Matsunaga

(Department of Metabolism, Chiba Children's Hospital)

P-42 A case of methylmaronic acidemia diagnosed by neonatal screening without any symptoms

○Yusuke Hamada¹, Toko Shibuya², Hidehito Kondo², Kanako Kishimoto¹, Yasuhiro Maeda³,
Noriyuki Namba¹, Norio Sakai²

¹Department of Pediatrics, Osaka hospital, Japan Community Healthcare Organization

²Department of Pediatrics, Osaka University hospital

³Department of Hospital Pharmacy, Graduate School of Pharmaceutical Sciences, Nagoya City
University

P-43 Effectiveness of carglumic acid on ammonia detoxification in methylmalonic acidemia

○Aiko Gishi¹, Saki Kasuga², Makiko Fuyuki², Takashi Hamazaki², Shintaku Haruo²

¹Department of Pediatrics, Osaka City University

²Department of Pediatrics, Osaka City University Graduate School of Medicine

P-44 A report of a patient with Methylmalonic acidemia who developed CML 9 years after a liver transplantation

○Kyoko Tashiro¹, Yoriko Watanabe^{1,2}, Kaori Fukui², Yuichi Ochi², Shinichiro Nakagawa²
Shuichi Ozono², Yushiro Yamashita²

¹Research Institute of Medical Mass Spectrometry, Kurume University School of Medicine

²Department of Pediatrics and Child Health, Kurume University School of Medicine

P-45 long-term clinical course of two sibling cases with methylmalonic acidemia

○Ryosuke Bo, Hiroyuki Awano, Masashi Nagai, Masaaki Matsumoto, Kazumi Tomioka
Kaori Maeyama, Tsukasa Tanaka, Masahiro Nishiyama, Hiroaki Nagase, Kazumoto Iijima
Department of Pediatrics, Kobe university Graduate School of Medicine

P-46 Association between propionyl-CoA carboxylase activity and severity of propionic acidemia

○Yasuhiro Maeda¹, Kana Gotoh¹, Yoko Nakajima², Go Tajima³, Yuji Hotta¹, Tomoya Kataoka⁴
Kazunori Kimura⁴, Tetsuya Ito²

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³National Center for Child Health and Development

⁴Department of Clinical Pharmacy, Graduate School of medical Sciences Nagoya City University

18 : 20 ~ 18 : 45 Organic acid disorders and fatty acid disorders 2

Chairperson: Kenji Yamada

(Department of Pediatrics, Shimane University Faculty of Medicine)

P-47 Biotin Responsiveness in 10 Korean Patients with Propionic Acidemia

○Sook Za Kim¹, Wung Joo Song², William Nyhan³

¹Korea Genetics Research Center/KSZ Children's Hospital

²Korea Genetics Research Center/KSZ Children's Hospital, Cheongju, South Korea

³UCSD Biochemical Genetics Laboratory, La Jolla, CA, USA

P-48 Classic organic acidurias in north-eastern Thai children: a seven-year experience.

○Khunton Wichajarn

Khon Kaen University

P-49 Elevated 3-hydroxyisovalerylcarnitine on newborn screening suggests mitochondrial disease

○Keisuke Okada¹, Ikuma Musha¹, Masato Arao¹, Yamazaki Taro¹, Toru kikuchi¹

Megumi Saito², Hiroshi Mochizuki³, Kei Murayama⁴, Yasushi Okazaki⁵, Akira Ohtake¹

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²Intractable Disease Center, Saitama Medical University

³Department of Metabolism and Endocrinology, Saitama Children's Medical Center

⁴Department of Metabolism, Chiba Children's Hospital

⁵Research Center for Genomic Medicine, Saitama Medical University

P-50 Glutaric Aciduria type II in Thailand: Phenotypic spectrum, Biochemical, and Molecular features

○Nithiwat Vatanavicharn¹, Somporn Liammongkolkul¹, Boonchai Boonyawat²

Achara Sathienkijkanchai¹, Pornswan Wasant¹, Seiji Yamaguchi³

¹Department of Pediatrics, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

²Department of Pediatrics, Phramongkutkloao College of Medicine, Bangkok, Thailand

³Department of Pediatrics, Shimane University School of Medicine, Shimane, Japan

P-51 Blood purification therapy and clinical course at metabolic crisis of organic acidemia

○Kaname Hirashima¹, Shiro Matsumoto², Kido jun², Rieko Sakamoto², Hiroshi Mitsubuchi¹

Fumio Endo³, Kimitoshi Nakamura²

¹Department of Pediatrics, Kumamoto University School of Medicine

²Department of Pediatrics, Kumamoto University School of Medicine

³Lake Kumamoto Ezu nursing medical center

< Block4 > 17 : 20 ~ 17 : 55 **Organic acid disorders and fatty acid disorders 3**

Chairperson: Yoshiaki Ohtsu

(Gunma University Graduate School of Medicine,
Department of Pediatrics)

P-52 CPT-2 deficiency diagnosed by recurrent rhabdomyolysis from early childhood

○Tae Kimura¹, Eiichi Wake¹, Tomotaka Kono¹, Katsuya Aizu¹, Tomonosuke Someya²
Keiichi Hara³, Go Tajima⁴, Mitsuru Kubota⁵, Akira Ohtake⁶, Hiroshi Mochizuki¹

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²Toyosu Medical Home for Children

³Department of Pediatrics, National Hospital Organization Kure Medical Center and Chugoku Cancer Center

⁴Division of Neonatal Screening, Research Institute, National Center for Child Health and Development

⁵Department of General Pediatrics and Interdisciplinary Medicine, National Center for Child Health and Development

⁶Department of Pediatrics, Saitama Medical University

P-53 An attempt of cooperation of local healthcare to glutaric aciduria type1 complicated by acute subdural hematoma.

○Akiko Yamada¹, Atsushi Iwabuchi¹, Kaori Kiyoki¹, Takahiro Kido¹, Tatsuyuki Ohto¹
Takashi Fukushima¹, Tomohiro Kamoda¹, Ryo Sumazaki¹, Kana Tamai²
Michinobu Jogamoto²

¹Department of Pediatrics, University of Tsukuba Hospital

²Department of Pediatrics, Moriya Daiichi General Hospital

P-54 2 cases of Short-chain acyl-CoA dehydrogenase deficiency discovered by neonatal metabolic screening

○Chunhua Zhang¹, Ning Zhao¹, Dan Yu², Xiaoli Tang³

¹Department of research & development of MILS International

²Department of Pediatrics, West China Second University Hospital, Sichuan University

³Department of Pediatrics, Chengdu Angel Women's and Children's Hospital

P-55 Newborn screening for VLCAD deficiency: risk assessment of positive subjects by genetic and enzymatic study

○Keiichi Hara¹, Go Tajima², Reiko Kagawa³, Satoshi Okada³, Nobuo Sakura⁴

¹Department of pediatrics, NHO Kure Medical Center

²Division of neonatal screening, National Center for Child Health and Development

³Department of Pediatrics, Hiroshima University Graduate School of Biomedical & Health Sciences

⁴Nursing Home for Severe Disabilities "Suzugamine".

P-56 Biochemical change after intravenous carnitine infusion in carnitine-acylcarnitine translocase deficiency

○Yasutsugu Chinen¹, Sadao Nakamura¹, Tadashi Kaname², Koichi Nakanishi¹

¹Department of Pediatrics, Faculty of Medicine, University of the Ryukyus

²Department of Genome Medicine, National Center for Child Health and Development

P-57 A patient with mHMG-CoA synthase defi. with developmental delay presented with acute decompensation

- Kaori Fukui¹, Yoriko Watanabe¹, Kojiro Nagai¹, Kyoko Tashiro², Tadateru Yasu³
Hideo Sasai⁴, Yuki Hasegawa⁵, Toshiyuki Fukao⁴, Takahiro Inokuchi², Yushiro Yamashita¹
¹The Department of Pediatrics and Child Health Kurume University School of Medicine
²Research Institute of Medical Mass Spectrometry, Kurume University School of Medicine
³Department of Pediatrics National Hospital Nagasaki Medical center
⁴Department of Pediatrics, Graduate School of Medicine, Gifu University
⁵Department of Pediatrics Shimane University School of Medicine

P-58 A case with short chain acyl-CoA dehydrogenase deficiency who presented high creatine kinase during febrile seizure.

- Miori Yuasa¹, Ikue Hata¹, Takuya Kosaka¹, Yuko Isozaki¹, Yosuke Shigematsu¹
Yusei Ohshima¹, Yoriko Watanabe^{2,3}, Kyoko Tashiro³, Keiichi Hara⁴, Go Tajima⁵
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³Research Institute of Medical Mass Spectrometry, Kurume University School of Medicine
⁴Department of Pediatrics, National Hospital Organization Kure Medical Center
⁵Division of Neonatal Screening, Research Institute, National Center for Child Health and Development

17 : 55 ~ 18 : 20 Mitochondrial disorder 1

Chairperson: Taro Yamazaki

(Department of Pediatrics, Saitama Medical University)

P-59 Prenatal diagnosis of mitochondrial respiratory chain disorders caused by nuclear gene mutations

- Nana Akiyama¹, Kei Murayama², Taro Yamazaki³, Megumi Saitou⁴, Takuya Fushimi²
Yukiko Yatsuka⁵, Tomoko Hirata⁶, Masakazu Kohda^{7,8}, Yasushi Okazaki^{7,8}, Akira Ohtake³
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³Department of Pediatrics, Faculty of Medicine, Saitama Medical University
⁴Department of Clinical Genetics, Saitama Medical University
⁵Division of Functional Genomics and Systems Medicine, Saitama Medical University
⁶Division of Translational Research, Research Center for Genomic Medicine, Saitama Medical University
⁷Research Center for Genomic Medicine, Saitama Medical University
⁸Intractable Disease Research Center, Juntendo University

P-60 A case suspected of mitochondrial complex III deficiency carrying *BCS1L* mutations presented with Fanconi syndrome

- Kanako Ishii¹, Tocan Vlad¹, Noriko Oyama¹, Naoko Toda¹, Kazuhiro Ohkubo¹
Yoshito Ishizaki¹, Koh-ichiro Yoshiura², Shouichi Ohga¹
¹Department of Pediatrics, Graduate School of Medical Sciences, Kyushu University
²Department of Human Genetics, Nagasaki University Graduate School of Biomedical Sciences

P-61 Identification of disease genes with no previous association with mitochondrial defects in mitochondrial diseases

○Yoshihito Kishita^{1, 2}, Masakazu Kohda^{2, 3}, Yukiko Yatsuka¹, Tomoko Hirata³, Yosuke Mizuno¹
Atsuko Imai-Okazaki¹, Hiroko Harashima⁴, Kei Murayama⁵, Akira Ohtake⁴, Yasushi Okazaki^{1, 2, 3}

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⁴Department of Pediatrics, Saitama Medical University, Saitama.

⁵Department of Metabolism, Chiba Children's Hospital, Chiba.

P-62 Investigation of causative genes for mitochondrial oxidative phosphorylation (OXPHOS) disorders

○Sze Chern Lim¹, Yoshihito Kishita^{1, 3}, Masakazu Kohda^{2, 3}, Tomoko Hirata², Yukiko Yatsuka¹
Atsuko Imai-Okazaki¹, Hiroko Harashima⁴, Kei Murayama⁵, Akira Ohtake⁴
Yasushi Okazaki^{3, 6}

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²Division of Translational Research, Research Center for Genomic Medicine, Saitama Medical University, Saitama.

³Intractable Disease Research Center, Graduate School of Medicine, Juntendo University, Tokyo.

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⁵Department of Metabolism, Chiba Children's Hospital, Chiba.

⁶Division of Functional Genomics & Systems Medicine and Division of Translational Research, Research Center for Genomic Medicine, Saitama Medical University, Saitama.

P-63 Three cases of lethal infantile mitochondrial disease.

○Masakazu Honda¹, Hayato Sakurai¹, Tetsuya Kunikata¹, Taro Yamazaki¹
Hiroko Harashima¹, Yoshihito Kishita², Masakazu Kohda², Yasushi Okazaki²
Kei Murayama³, Akira Ohtake¹

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²Research Center for Genomic Medicine, Saitama Medical University

³Department of Metabolism, Chiba Children's Hospital

18 : 20 ~ 18 : 50 Mitochondrial disorder 2

Chairperson: Kondo Hidehito

(Osaka University Graduate School of Medicine,
Department of Pediatrics)

P-64 Aspartate supplementation for aspartate-glutamate carrier isoform 1 deficiency

○Shoji Yano¹, Arthur Partikian¹, Stefan Bluml¹, Kathryn Moseley¹, Yoriko Watanabe²
Hiroto Saito³, Naomichi Matsumoto³

¹Pediatrics, University of Southern California, ²Pediatrics, Kurume University

³Human Genetics, Yokohama City University

P-65 Eleven novel mutations in six Chinese patients with thiamine metabolism dysfunction syndrome

○Dongxiao Li¹, Xiyuan Li², Yi Liu², Hui Dong², Jinqing Song², Yupeng Liu², Yao Zhang²
Ying Jin², Hanzhou Guan³, Yanling Yang²

¹Department of Pediatrics, Peking University First Hospital; Rehabilitation centre, Henan Children's Hospital.

²Department of Pediatrics, Peking University First Hospital

³Department of Pediatrics, Children's Hospital of Shanxi Province, Taiyuan, China

P-66 Serum GDF15 levels in diseases similar to mitochondrial disorders

○Shuichi Yatsuga, Miyuki Kitamura, Yasutoshi Koga

Department of Pediatrics and Child Health, Kurume University School of Medicine

P-67 A novel mutation in *TAZ* causes mitochondrial respiratory chain disorder without cardiomyopathy

○Nurun Nahar Borna¹, Yoshihito Kishita^{1,2}, Kaori Ishikawa³, Kazuto Nakada³, Masakazu Kohda^{2,4},
Takashi Nasu⁵, Atsuhito Takeda⁶, Kei Murayama⁷, Akira Ohtake⁸, Yasushi Okazaki^{2,9}

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³Faculty of Life and Environmental Sciences, University of Tsukuba, Tsukuba.

⁴Division of Translational Research, Research Center for Genomic Medicine, Saitama Medical University, Saitama.

⁵Department of Pediatrics, Obihiro Kosei General Hospital, Obihiro.

⁶Department of Pediatrics, Hokkaido University Graduate School of Medicine, Hokkaido.

⁷Department of Metabolism, Chiba Children's Hospital, Chiba.

⁸Department of Pediatrics, Saitama Medical University, Saitama

⁹Division of Functional Genomics & Systems Medicine and Division of Translational Research, Research Center for Genomic Medicine, Saitama Medical University, Saitama.

P-68 The second case of MELAS with m.5541C>T MT-TW

○Yuko Hirose¹, Hitoshi Osaka¹, Masako Nagashima¹, Hirokazu Yamagishi¹, Sumie Ohhata¹
Jun Odaka¹, Yu-ichi Goto², Takanori Yamagata¹

¹Department of Pediatrics, Jichi Medical University

²Department of Mental Retardation and Birth Defect Research, National

P-69 A 14-year-old Chinese boy with Kearns-Sayer syndrome: a case report

○Yuqing Shi, Fang Fang, Zhimei Liu

Beijing children's hospital, capital medical university

< Block5 > 17 : 20 ~ 17 : 50 Amino acid disorders 1

Chairperson: Masayoshi Nagao

(National Hospital Organization Hokkaido Medial Center)

- P-70 Replacement therapy for selenium and biotin in patients with phenylketonuria**
○Yoshiyuki Okano^{1,2}, Miki Okamoto¹, Toshiaki Watanabe³, Ryoko Watanabe³, Rika Fujii³
Yosuke Shigematsu⁴, Tomoko Tamaoki², Yasuhiro Takeshima²
¹Okano Children's Clinic, ²Hyogo College of Medicine
³Osaka Aoyama University, ⁴Fukui University
- P-71 Successful pregnancy in a PKU woman treated with tetrahydrobiopterin**
○Natsuko Arai-Ichinoi¹, Osamu Sakamoto¹, Shigeo Kure¹, Kei Murayama²
¹Department of Pediatrics, Tohoku University School of Medicine
²Department of Metabolism, Chiba Children's Hospital
- P-72 Extended tetrahydrobiopterin loading test in responsive phenylketonuria with sapropterin**
○Chika Takano, Mika Ishige, Erika Ogawa, Tatsuo Fuchigami, Shori Takahashi
Department of Pediatrics and Child Health, Nihon University School of Medicine
- P-73 BH4-responsive hyperphenylalaninemia whose initial phenylalanine level was equivalent to classical phenylketonuria**
○Tomotaka Kono¹, Tae Kimura¹, Eiichi Wake¹, Katsuya Aizu¹, Akira Ohtake²
Hiroshi Mochizuki¹
¹Division of Endocrinology and Metabolism, Saitama Children's Medical Center
²Department of Pediatrics, Saitama Medical University
- P-74 Phase 3 Long-term Study Evaluating Efficacy and Safety of Pegvaliase Treatment in Adults with PKU**
○Nicola Longo¹, Jeffery Vockley², Harvey Levy³, Stephen Amato⁴, Roberto Zori⁵
Janet Thomas⁶, Barbara Burton⁷, Cary Harding⁸, John Posner⁹, Deborah Bilder¹
Joy Olbertz¹⁰, Zonghua Gu¹⁰, Kelly Lau¹⁰, Mingjin Lin¹⁰, Kevin Larimore¹⁰, David Dimmock¹¹
¹University of Utah, Salt Lake City, UT
²University of Pittsburgh and Children's Hospital of Pittsburgh, Pittsburgh, PA
³Boston Children's Hospital, Boston, MA, ⁴University of Kentucky, Lexington, KY
⁵University of Florida, Gainesville, FL, ⁶University of Colorado School of Medicine, Aurora, CO
⁷Lurie Children's Hospital of Chicago, Chicago, IL
⁸Oregon Health & Science University, Portland, OR, ⁹King's College, London, UK
¹⁰BioMarin Pharmaceutical Inc., Novato, CA
¹¹Rady Children's Institute for Genomic Medicine, San Diego, CA

P-75 Phase 3 PRISM Studies Evaluating Efficacy and Safety of Pegvaliase Treatment in Adults with PKU

○Nicola Longo¹, Cary Harding², Stephen Amato³, Jeffery Vockley⁴, Klaas Wierenga⁵
Hong Li⁶, Deborah Bilder¹, Barbara Burton⁷, David Dimmock⁸, John Posner⁹
Janet Thomas¹⁰, Roberto Zori¹¹, Orli Rosen¹², Zonghua Gu¹², Mingjin Lin¹²
Markus Merilainen¹², Haoling H. Weng¹², Harvey Levy¹³

¹University of Utah, Salt Lake City, UT, ²Oregon Health & Science University, Portland, OR

³University of Kentucky, Lexington, KY

⁴University of Pittsburgh and Children's Hospital of Pittsburgh, Pittsburgh, PA

⁵University of Oklahoma, Oklahoma City, OK, ⁶Emory University, Decatur, GA

⁷Lurie Children's Hospital of Chicago, Chicago, IL

⁸Rady Children's Institute for Genomic Medicine, San Diego, CA

⁹King's College, London, UK, ¹⁰University of Colorado School of Medicine, Aurora, CO

¹¹University of Florida, Gainesville, FL, ¹²BioMarin Pharmaceutical Inc., Novato, CA

¹³Boston Children's Hospital, Boston, MA

17 : 50 ~ 18 : 20 Amino acid disorders 2

Chairperson: Erika Ogawa

(Department of Pediatrics and Child Health, Nihon University)

P-76 A retrospective study of orotic acid value in patient with OTC deficiency

○Hironori Kobayashi¹, Toshikazu Minohata¹, Hiroshi Mitsubuchi², Kimitoshi Nakamura²
Mitsuru Kubota³, Osamu Sakamoto⁴, Yoriko Watanabe⁵, Kaori Fukui⁵, Furujo Mahoko⁶
Seiji Yamaguchi¹

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²Department of Pediatrics, Kumamoto University Graduate School of Medical Sciences

³Department of General Pediatrics & Interdisciplinary Medicine, National Center for Child Health and Development

⁴Department of Pediatrics, Tohoku University School of Medicine

⁵Department of pediatrics, Kurume University School of Medicine

⁶Department of pediatrics, Okayama Medical Center

P-77 Hypocitrullinemia in newborn MS/MS screening with late-onset OTC deficiency

○Tomoko Lee¹, Katsuhiko Yoshii², Satoru Yoshida³, Takenori Suga⁴, Kimitoshi Nakamura⁵
Toshiyuki Fukao⁶, Kei Murayama⁷, Yuki Hasegawa⁸, Yasuhiro Takeshima¹

¹Department of Pediatrics, Hyogo College of Medicine

²Department of pediatrics, Chibune General Hospital

³Department of pediatrics, Seirei Mikatahara General Hospital

⁴Department of pediatric emergency medicine, Hyogo Prefectural Amagasaki general Medical Center

⁵Department of Pediatrics, Kumamoto University Graduate School of Medicine

⁶Department of Pediatrics, Gifu University Graduate School of Medicine

⁷Department of Metabolism, Chiba Children's Hospital

⁸Department of Pediatrics, Shimane University Graduate School of Medicine

P-78 A case of late-onset ornithine transcarbamylase deficiency with reversible CT hepatic images

○Shinpei Kawachi, Takenori Suga

Department of pediatric emergency and intensive care unit, Hyogo Prefectural Amagasaki General Medical Center

P-79 Impact of the 2016 Kumamoto Earthquake on a female patient with OTCD

○Jun Kido¹, Takanobu Yoshida¹, Shirou Matsumoto¹, Hiroshi Mitsubuchi¹, Rieko Sakamoto¹
Fumio Endo², Kimitoshi Nakamura¹

¹Department of Pediatrics, Kumamoto University

²Department of Pediatrics, Kumamoto eduko developmental care center

P-80 Sodium pyruvate treatment for persistent NICCD

○Toju Tanaka, Hiroko Shigetomi, Masayoshi Nagao

Center for Genetics & Metabolic Disorder and Clinical Research, National Hospital Organization Hokkaido Medical Center

P-81 A case of cystinuria occurring with acute renal parenchymal injury due to ureteral stone.

○Ikuma Musha, Hiromi Teranishi, Yutaka Ueda, Taro Yamazaki, Yuko Akioka

Hideo Yamanouchi, Kenichi Tokuyama, Toru Kikuchi, Akira Ohtake

Department of Pediatrics, Saitama Medical University

18 : 20 ~ 18 : 45 Amino acid disorders 3

Chairperson: Atsuo Kikuchi

(Department of Pediatrics, Tohoku University Hospital)

P-82 Medical care subsidies of intractable diseases in adults with PKU, MSUD and HCU.

○Mika Ishige, Erika Ogawa, Chika Takano, Tatsuo Fuchigami, Shori Takahashi

Department of Pediatrics and Child Health, Nihon University School of Medicine

P-83 Quantification of allo-isoleucine and branched-chain amino acid to make a diagnosis and a follow-up of MSUD

○Reiko Iwano¹, Hideki Nakajima², Junko Hanakawa³, Yumi Asakura³, Masanori Adachi³
Koji Muroya³

¹Clinical Research Institute, Kanagawa Children's Medical Center

²Division of Neonatal Screening, National Center for Child Health and Development

³Department of Endocrinology and Metabolism, Kanagawa Children's Medical Center

P-84 A Case of Congenital Biliary Atresia with Difficulties in Differentiation from Congenital Metabolic Disorders

○Shin Hoshino¹, Sumire Kumai¹, Toru Maeda¹, Takenori Adachi¹, Takashi Kawabe¹

Katsuyuki Yokoi², Yoko Nakajima², Tetsuya Ito², Toshihiro Yasui², Tatsuya Suzuki²

¹Department of Pediatrics, Kasugai Municipal Hospital

²Department of Pediatrics, Fujita Health University

P-85 Cobalamin disorder CblC presenting acute pulmonary edema detected by expanded newborn screening
○Shoko Sakamoto¹, Osamu Sakamoto², Takashi Hamazaki³, Haruo Shintaku³
¹Department Pediatrics, Osaka City University, ²Department of Pediatrics, Tohoku University
³Department of Pediatrics, Osaka City University Graduate School of Medicine

P-86 Mutation in SLC6A9 encoding a glycine transporter causes a novel form of non-ketotic hyperglycinemia in humans
○MOHAMMAD ARIF HOSSAIN, Marwan Nashabat, Fuad Al Mutairi, Majid Alfadhel
King Abdulaziz Medical City, National Guard Health Affairs

< Block6 > 17 : 20 ~ 17 : 45 Metal merabolic abnormality & Carbohydrate metabolism
Chairperson: Tokiko Fukuda
(Pediatrics, Hamamatsu University School of Medicine)

P-87 A case of hepatic-type of Wilson disease with long turn good medical compliance, who died due to subarachnoid hemorrhage
○Miku Tsuruoka¹, Yutaka Fuchinoue², Takao Kuroki², Hiroyuki Hiruta², Akihiko Tateno²
Norikazu Shimizu², Tsugutoshi Aoki²
¹Department of Pediatrics, Toho University Ohashi Medical Center
²Toho University

P-88 An example of liver neural-type Wilson's disease that presented atypical findings
○Shinji Utsunomiya, Miku Turuoka, Syoko Nakazawa, Norikazu Shimizu, Tsugutoshi Aoki
Department of pediatrics, Toho University

P-89 The repetitive observation of urine glycerol level is useful for diagnosis of FBPase deficiency.
○Yoshimitsu Osawa¹, Aya Wada¹, Yoko Tabei¹, Yoshiaki Ohtsu¹, Junko Igaki²
Kenichi Maruyama³, Hirokazu Arakawa¹
¹Gunma University Graduate School of Medicine, Department of Pediatrics, Gunma, Japan
²Department of Endocrinology and Metabolism, Nanbu Medical Center · Nanbu Child Medical Center, Okinawa Japan
³Department of Nephrology, Gunma Children's Medical Center, Gunma Japan

P-90 A Korean girl with neurologic features diagnosed as Fructose-1,6-bisphosphatase (FBPase) deficiency using clinical exome sequencing
○Hyunjoo Lee, JIN-SUNG Lee, Ah Reum Kwon, Ho-Seoung Kim
Department of Pediatrics, Yonsei University College of Medicine

P-91 Epidemiology of insulin resistance syndromes in Japanese children

○Tohru Yorifuji¹, Hiroko Kadowaki², Yushi Hirota³, Wataru Ogawa³, Hideki Katagiri⁴
Yasui Ishigaki⁵, Takashi Akamizu⁶

¹Division of Pediatric Endocrinology and Metabolism, Children's Medical Center, Osaka City General Hospital,

²Department of Pediatrics, Sanno Hospital

³Division of Diabetes and Endocrinology, Department of Internal Medicine, Kobe University Graduate School of Medicine

⁴Division of Diabetes and Metabolism, Department of Internal Medicine, Tohoku University School of Medicine

⁵Division of Diabetology, Department of Internal Medicine, Iwate Medical University

⁶First Department of Internal Medicine, Wakayama Medical University

17 : 45 ~ 18 : 20 Peroxisomal disorder & others

Chairperson: Hideo Sasai

(Department of Pediatrics, Graduate School of Medicine,
Gifu University)

P-92 Establishment and phenotypic analysis of the disease-model zebrafish for Peroxisomal biogenesis disorder

○Shigeo Takashima¹, Shoko Takemoto¹, Kayoko Toyoshi¹, Akiko Ohba¹, Haruka Fujita²
Kentaro Oh-hashii², Yoko Morita², Nobuyuki Shimozawa¹

¹Division of Genomics Research, Life Science Research Center, Gifu University

²Graduate School of Natural Science and Technology, Gifu University

P-93 Screening for chemical compounds that stimulate peroxisomal fatty acid β -oxidation

○Masashi Morita¹, Kaito Tomita², Sato Hideaki², Shun Matumoto², Shiro Watanabe³
Nobuyuki Shimozawa⁴, Tsuneo Imanaka⁵

¹Department of Biological Chemistry, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama

²Department of Biological Chemistry, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama

³Institute of Natural medicine, University of Toyama

⁴Division of Genomic Research, Life Science Research Center, Gifu University

⁵Faculty of Pharmaceutical Sciences, Hiroshima International University

P-94 Two cases of long term survival of Adrenoleukodystrophy after hematopoietic stem cell transplant

○Toshiki Tsunogai¹, Masayoshi Yamaoka¹, Masaharu Akiyama¹, Hiroyuki Ida¹, Toya Ohashi²

¹Department of Pediatrics, The Jikei University School of Medicine

²Department of Gene Therapy, Institute of DNA Medicine, The jikei University School of Medicine

P-95 Ten novel mutations of the ERCC6, ERCC8 genes associated with Cockayne syndrome and prenatal diagnosis for three fetuses

○Dongxiao Li¹, Yuan Ding², Hui Dong², Jinqing Song², Xiyuan Li², Ying Jin², Yupeng Liu²
Lifang Feng³, Xiaohong Chen³, Hong Zheng⁴

¹Department of Pediatrics, Peking University First Hospital; Rehabilitation centre, Henan Children's Hospital.

²Department of Pediatrics, Peking University First Hospital

³Department of Endocrinology and Metabolism, Wuhan Medical and Healthcare Center for Women and Children, China

⁴Department of Pediatrics, The First Hospital of Henan University of Traditional Chinese Medicine, China.

P-96 A de novo novel mutation in COL2A1 leading to spondyloepiphyseal dysplasia congenital in a Chinese family

○Yi Liu¹, Qihong Xiong², Xiyuan Li¹, Yu Xue², Jing Wang², Dongxiao Li¹, Ying Jin¹
Changxin Wu², Han Xiao², Yanling Yang¹

¹Department of Pediatrics, Peking University First Hospital

²Institute of Biomedical Sciences, Shanxi University

P-97 A case with severe acidosis and unconsciousness suspected of inborn errors in keton body metabolism

○Miki Matsui¹, Satoshi Oonishi², Tomoko Lee³, Yo Okizuka², Taisuke Hashimoto⁴
Hironori Kobayashi⁵

Yuki Hasegawa⁵, Hideo Sasai⁶, Toshiyuki Fukao⁶, Hirotaka Minami¹

¹Department of pediatrics, Takatsuki General Hospital

²Department of pediatric intensive care, Takatsuki General Hospital

³Department of pediatrics, Hyogo College Of Medicine

⁴Department of pediatrics, Toyonaka Municipal Hospital

⁵Department of Pediatrics, Shimane University School of Medicine

⁶Department of Pediatrics, Gifu University Graduate School of Medicine

P-98 A case of dihydropyrimidinase deficiency accidentally discovered by urinary metabolome analysis

○Hiroki Tsuchiya¹, Tomoyuki Akiyama¹, Tomiko Kuhara², Yoko Nakashima³
Takashi Shibata¹, Mari Akiyama¹, Makio Oka¹, Fumika Endo¹, Harumi Yoshinaga⁴
Katsuhiko Kobayashi¹

¹Department of Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences

²Japan Clinical Metabolomics Institute

³Department of Pediatrics, Fujita Health University

⁴National Hospital Organization Minami-Okayama Medical Center

18 : 20 ~ 18 : 40 Patient Registration & Treatments

Chairperson: Kohnosuke Mitani

(Saitama Medical University Research Center for Genomic
Medicine, Division of Gene Therapy and Genome Editing)

P-99 Epidemiology of Mucopolysaccharidoses

○Shunji Tomatsu^{1,2}, Shaukat A. Khan², Hira Peracha², Diana Ballhausen³, Alfred Wiesbauer⁴
Yasuyuki Suzuki⁵, Kenji E. Orii⁶, Tadao Orii⁶

¹Departments of Biomedical Research and Orthopedics

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³Centre for molecular diseases, Service for genetic medicine, University Hospital

⁴Institute of Social and Preventive Medicine, University of Bern

⁵Medical Education Development Center, Gifu University

⁶Department of Pediatrics, Gifu University

P-100 Current status of Japan Registration System for Metabolic & Inherited Diseases

○Joo-Hyun Seo¹, Makiko Miyairi¹, Akira Ohtake², Torayuki Okuyama¹

¹Clinical Laboratory Medicine, National Center for Child Health and Development

²Department of Pediatrics, Saitama Medical University

P-101 Development of Bone Targeting Drugs

○Shunji Tomatsu¹, Molly Stapleton¹, Kazuki Sawamoto¹, Carlos J. Alméciga-Díaz², Tadao Orii³

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²Institute for the Study of Inborn Errors of Metabolism, Pontificia Universidad Javeriana

³Department of Pediatrics, Graduate School of Medicine, Gifu University

P-102 Therapeutic strategy for Fabry disease peripheral neuropathy with rAAV vector

○Takashi Higuchi¹, Yohta Shimada¹, Hiroshi Kobayashi¹, Takahiro Fukuda², Fusao Kato³
Toya Ohashi¹

¹Division of Gene Therapy, The Jikei University

²Department of Neuropathology, The Jikei University

³Division of Neuroscience, The Jikei University