The 21st Annual Meeting of the Infantile Seizure Society

International Symposium on the
Pathophysiology of Developmental and
Epileptic Encephalopathy
(ISDEE2020)

totally online

Draft program

Date: June 19 (Friday) - June 21 (Sunday), 2020
Dear Friends and Colleagues,

On behalf of the organizing committee, it is our great pleasure to invite you to the International Symposium on the Pathophysiology of Developmental and Epileptic Encephalopathy (ISDEE2020), which is being held as the 21st Annual Meeting of the Infantile Seizure Society (ISS) in Okayama, Japan in 2020.

At this symposium, we intend to discuss and investigate the issues of developmental and epileptic encephalopathy (DEE) in infancy and childhood that involve clinical neurophysiology. Through neurophysiology, clinical epileptology can be understood as electrical dysfunctions of the brain, and basic neuroscience, including genetics, metabolism, brain ontogenesis, and other fields, reveals how electrical disturbances occur in the neuronal system, leading to the generation of seizures. Neurophysiology may be regarded as a link between clinical epileptology and basic neuroscience, and it is therefore the cornerstone of ISDEE2020.

Hideo Yamanouchi, Chairperson, Infantile Seizure Society
Professor, Department of Pediatrics, Saitama Medical University

Katsuhiro Kobayashi, President, ISDEE2020
Professor, Department of Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Isao Date, Vice President, ISDEE2020
Professor, Department of Neurological Surgery, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Tomoyuki Akiyama, Secretary General, ISDEE2020
Associate Professor, Department of Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan
Advisory Board
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Hitoshi Yamamoto (Japan)
Akihisa Okumura (Japan)
Shinichi Hirose (Japan)
Wang-Tso Lee (Taiwan)
Marilyn Hebron Ortiz (Philippines)
Meltem Uzun (Turkey)
Nicola Specchio (Italy)
Yoshihiro Maegaki (Japan)
Jun Natsume (Japan)
Kazuhiro Muramatsu (Japan)

Host Organizer
Infantile Seizure Society (ISS)
Program (draft)

Day 1, Friday, June 19

Opening Ceremony
9:00 – 9:10 Opening remark

Presidential Lecture
9:10 – 9:30 Introduction to the symposium on developmental and epileptic encephalopathy (DEE)
Katsuhiro Kobayashi
Professor, Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Keynote Lecture
Chairperson:
Hideo Yamanouchi (Professor, Pediatrics, Saitama Medical University, Saitama, Japan)
9:30– 10:30 (PDT 17:30 – 18:30 on Thursday, June 18) (tentative theme) Overview of DEE
Raman Sankar
Professor, Neurology and Pediatrics, Geffen School of Medicine UCLA, CA, USA

10:30 – 10:40 Break

Lecture Session 1: Electrophysiology in DEE (part 1)
Chairperson:
Mitsugu Uematsu (Associate Professor, Pediatrics, Tohoku University Hospital, Sendai, Japan)
10:40 – 11:10 (PDT 18:40 – 19:10 on Thursday, June 18) Computational EEG analysis in epileptic encephalopathy
Hiroki Nariai
Assistant Professor, Pediatric Neurology/Pediatrics, University of California, Los Angeles, CA, USA

Lecture Session 2: Basic neuroscience of DEE
Chairperson:
Shinji Saitoh (Professor, Pediatrics and Neonatology, Graduate School of Medical Sciences, Nagoya City University, Nagoya, Japan)
11:10– 11:40 Pivotal roles of neuronal excitation-inhibition dynamics in epileptogenesis of human and animal models
Atsuo Fukuda
Professor, Neurophysiology, Hamamatsu University School of Medicine, Hamamatsu, Japan
11:40 – 12:10  (tentative theme) Studies on patho-mechanisms involving iPS cells and other techniques
    Shinichi Hirose
    Professor, Pediatrics, School of Medicine, Fukuoka University, Fukuoka, Japan

12:10 – 13:10  Break (lunch on one’s own)

Talking Poster Session 1 (domestic and Asian presenters)
13:10 – 14:10

14:10 – 14:20  Break

Lecture Session 3: Neonatal-/early-onset DEE
Chairperson:
    Akihisa Okumura (Professor, Pediatrics, Aichi Medical University, Aichi, Nagoya)
14:20 – 14:50  Genetics of neonatal-onset epileptic encephalopathies: A tribute to Prof. Ohtahara
    Mitsuhiro Kato
    Professor, Pediatrics, Showa University School of Medicine, Tokyo, Japan

    Natrujee Wiwattanadittakul
    Lecturer, Child Neurology, Chiang Mai University, Chiang Mai, Thailand

15:20 – 15:30  Break

Platform Session 1
15:30 – 16:30

16:30 – 16:40  Break

Lecture Session 4: Electrophysiology in DEE (part 2)
Chairperson:
    Hideaki Shiraishi (Assistant Professor, Pediatrics, Hokkaido University Graduate School of Medicine, Hokkaido, Japan)
16:40 – 17:10 (CEST 9:40 – 10:10)  (tentative theme) Electrophysiology
    Nicola Specchio
    Neuroscience, Bambino Gesù Children's Hospital, IRCCS, Rome, Italy

Special Lecture 1
Chairperson:
    Hitoshi Yamamoto (Professor, Pediatrics, St Marianna University School of Medicine, Kawasaki, Japan)
Day 2, Saturday, June 20

Special Lecture 2
Chairperson:
Takao Takahashi (Professor and Chair, Pediatrics, Keio University School of Medicine, Tokyo, Japan)
9:00 – 10:00 (MDT 18:00-19:00 on Friday, June 19) Neuronal maturational factors can change excitatory/inhibitory synaptic ratios in infantile epilepsies
Harvey B. Sarnat
Professor, University of Calgary, Cumming School of Medicine
Alberta Children's Hospital Research Institute, Owerko Centre
Child Development Centre, Calgary, Alberta, Canada

10:00 – 10:10 Break

Lecture Session 5: Metabolic mechanisms in DEE
Chairperson:
Hitoshi Osaka (Professor, Pediatrics, Jichi Medical School, Tochigi, Japan)
10:10 – 10:40 (tentative theme) Metabolic pathomechanisms
Tomoyuki Akiyama
Associate Professor, Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

Lecture Session 6: Inflammatory mechanisms in DEE
Chairperson:
Hiroshi Sakuma (Project Leader, Developmental Neuroimmunology Project, Department of Brain Development and Neural Regeneration, Tokyo Metropolitan Institute of Medical Science)
10:40 – 11:10 (SGT 9:40 – 10:10) (tentative theme) Inflammation in DEE
Derrick Chan
Associate Professor, Paediatric Neurology, KK Women's and Children's Hospital, Singapore

11:10 – 11:20 Break

Joint Seminar 1
11:20 – 12:20 (to be determined)
12:20 – 13:20 Break (lunch on one’s own)

Talking Poster Session 2 (domestic and Asian presenters)
13:20 – 14:20

14:20 – 14:30 Break

Platform Session 2
14:30 – 15:30

15:30 – 15:40 Break

Lecture Session 7: Genetic aspects of DEE
Chairperson:
Norimichi Higurashi (Pediatrics, Jikei University School of Medicine)
15:40 – 16:10 (CST 14:40 – 15:10) Genetic aspects of DEE with movement disorders
   Wang-Tso Lee
   Professor, Pediatric Neurology, National Taiwan University Hospital, Taipei, Taiwan

16:10 – 16:40 (ICT 14:10 – 14:40) Genetic Studies in Developmental and Epileptic Encephalopathy
   Chaiyos Khongkhatithum
   Associate Professor, Pediatric Neurology, Pediatrics, Faculty of Medicine
   Ramathibodi Hospital, Mahidol University, Bangkok Thailand

16:40 – 16:50 Break

Special Lecture 3
Chairperson:
Mitsuhiro Kato (Professor, Pediatrics, Showa University School of Medicine, Tokyo, Japan)
16:50 – 17:50 (CEST 9:50 – 10:50) A bridge between genetics and electrophysiology
   Renzo Guerrini
   Professor, Neuroscience, Children's Hospital A. Meyer-University of Florence, Italy

Day 3, Sunday, June 21

Lecture Session 8: Treatment of DEE (surgical aspects)
Chairperson:
Tomoyuki Akiyama
Associate Professor, Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan
9:00 – 9:30 (EDT 20:00 – 20:30 on Saturday, June 20) Epileptogenic modulation and synchronization in hypsarrythmia secondary to perinatal middle cerebral artery stroke
Hiroshi Otsubo
Professor, Neurology, Hospital for Sick Children, University of Toronto, Toronto, Canada

**Talking Poster Session 3** (oversea presenters including 4 from US/Canada)
9:30 – 10:30 (EDT 20:30 – 21:30)

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10:30 – 10:40 Break

**Lecture Session 9**: Neuroimaging studies in DEE

**Chairperson:**
Masaharu Hayashi (Research Professor, Department of Nursing, Faculty of Nursing and Nutrition, Shukutoku University, Chiba, Japan)

10:40 – 11:10 Neuroimaging of developmental and epileptic encephalopathies
Jun Natsume
Professor, Developmental Disability Medicine, Nagoya University Graduate School of Medicine, Nagoya, Japan

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11:10 – 11:20 Break

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**Joint Seminar 2**
11:20 – 12:20 (to be determined)

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12:20 – 13:20 Break (lunch on one’s own)

**Special Lecture 4**

**Chairperson:**
Shinichi Hirose (Professor, Pediatrics, School of Medicine, Fukuoka University, Fukuoka, Japan)

Ingrid Scheffer
Professor, University of Melbourne, Melbourne, Australia

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14:20 – 14:30 Break

**Lecture Session 10**: Neurocognitive/QOL issues in DEE

**Chairperson:**
Eiji Nakagawa (Head, Department of Child Neurology, National Center Hospital, National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan)

14:30 – 15:00 Developmental and epileptic encephalopathies and eurodevelopmental
disorders
Yushiro Yamashita
Professor, Pediatrics and Child Health, Kurume University, Kurume, Japan

15:00 – 15:20 Cognitive and behavioral consequences in ECSWS: the relationship between seizures/paroxysmal EEG abnormalities and cognitive/behavioral disturbances
Hideaki Kanemura
Professor, Pediatrics, Toho University Sakura Hospital, Chiba, Japan

15:20 – 15:40 Burden of developmental and epileptic encephalopathy-affected children on families, nursery schooling, and employment in Japan
Susumu Ito
Pediatrics, Tokyo Women’s Medical University, Tokyo, Japan

15:40 – 15:50 Break

Talking Poster Session 4 (domestic and Asian presenters)
15:50 – 16:50

Lecture Session 11: Treatment of DEE (medical and dietary aspects)
Chairperson:
Tohru Okanishi (Associate Professor, Division of Child Neurology, Institute of Neurological Science, Tottori University)
16:50 – 17:20 (KST 16:50 – 17:20) Treatment of developmental and epileptic encephalopathy
Ki Joong Kim
Professor, Pediatrics, Seoul National University Children's Hospital, Seoul, Seoul Korea

17:20 – 17:50 (BST 9:20 – 9:50) How do infantile spasms and west syndrome relate to the concepts of developmental & epileptic encephalopathies?
Andrew Lux
Women’s and Children's Health / Paediatric Neurology, University of Bristol, Bristol, UK

Closing Ceremony
17:50 – 18:00 Closing remark

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