

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

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

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Tomoyuki Akiyama, Secretary General, ISDEE2020
Associate Professor, Department of Child Neurology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Okayama, Japan

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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

14:50 – 15:20 (ICT 12:50 – 13:20) Neonatal and infantile onset developmental and epileptic encephalopathy

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)

17:10 – 18:10 (CEST 10:10 – 11:10) (tentative theme) Phenotype-genotype correlations
in DEE

Federico Vigevano

Director, Neuroscience Department, Bambino Gesù Children's Hospital, IRCCS,
Rome, Italy



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 hypsarrhythmia 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)

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

11:10 – 11:20 Break

Joint Seminar 2

11:20 – 12:20 (to be determined)

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)

13:20 – 14:20 (AEST 14:20 – 15:20) (tentative theme) Precision medicine for DEE

Ingrid Scheffer

Professor, University of Melbourne, Melbourne, Australia

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

