

**THE
7TH LONDON-INNSBRUCK
COLLOQUIUM
ON STATUS EPILEPTICUS
AND ACUTE SEIZURES**

7-9 APRIL 2019

**THE FRANCIS CRICK INSTITUTE
LONDON, UK**

**HELD UNDER THE AUSPICES OF
THE ILAE BRITISH CHAPTER**

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LIST OF FACULTY

Sándor Beniczky, Roskilde, Denmark
Ahmad Beydoun, Beirut, Lebanon
Nadir Bharucha, Mumbai, India
Meir Bialer, Jerusalem, Israel
Peter Blain, Newcastle upon Tyne, United Kingdom
Tom Bleck, Chicago, USA
Richard Chin, Edinburgh, United Kingdom
Hannah Cock, London, United Kingdom
Andrew Cole, Boston, USA
Mark Cook, Melbourne, Australia
Peter Crino, Baltimore, USA
Helen Cross, London, United Kingdom
Monica Ferlisi, Verona, Italy
Alon Friedman, Halifax, Canada
Renzo Guerrini, Florence, Italy
Cecil Hahn, Toronto, Canada
Raimund Helbok, Innsbruck, Austria
David Henshall, Dublin, Ireland
Sara Hocker, Rochester, USA
Reetta Kälviäinen, Kuopio, Finland
Peter Kaplan, Baltimore, USA
Jaideep Kapur, Charlottesville, USA
Christoph Kellinghaus, Osnabrück, Germany
Matthias Koepp, London, United Kingdom
Dimitri Kullmann, London, United Kingdom
Lieven Lagae, Leuven, Belgium
Stéphane Legriél, Le Chesnay, France
Markus Leitinger, Salzburg, Austria
Holger Lerche, Tübingen, Germany
Brian Litt, Philadelphia, USA
Tobias Loddenkemper, Boston, USA
Daniel Lowenstein, San Francisco, USA
Rosalyn Moran, London, United Kingdom
Ronit Pressler, London, United Kingdom
Ashalatha Radhakrishnan, Thiruvananthapuram, India
Shamima Rahman, London, United Kingdom
Michael Rogawski, Sacramento, USA
Eric Rosenthal, Weston, USA
James Rothman, London, United Kingdom
Stephan Rügg, Basel, Switzerland
Simon Shorvon, London, United Kingdom
Nicola Specchio, Rome, Italy
Eugen Trinka, Salzburg, Austria
Annamaria Vezzani, Milan, Italy
Matthew Walker, London, United Kingdom
Claude Wasterlain, Los Angeles, USA
Rob Wykes, London, United Kingdom



PROGRAMME

SATURDAY, APRIL 6TH, 2019

09.30 - 17.00 **Pre-colloquium Teaching Course on EEG in status epilepticus and on the intensive care unit**

This course will be held at the Institute of Education, **20 Bedford Way, London**. It will be taught by an international faculty who are leaders in the field, and delegates will receive a pack of teaching materials.

The course is designed for trainees and consultant level clinicians and for technical staff. Details on the programme you find on <https://ilaebritish.org.uk/events/eeq-in-status-epilepticus-and-on-the-intensive-care-unit/>

SUNDAY, APRIL 7TH, 2019

09.15 - 09.30 **Introduction**

Wellcome auditorium

Simon Shorvon, Eugen Trinka, Matthew Walker

09.30 - 12.40 **Session 1: Networks and novel targets**

Wellcome auditorium

Chairs: Annamaria Vezzani, Alon Friedman

09.30 - 10.10

Gene therapy for closed-loop seizure suppression

Dimitri Kullmann

10.10 - 10.40

Coffee break

10.40 - 11.20

Secondarily generalized convulsive status epilepticus: circuits and mechanisms

Jaideep Kapur

11.20 - 12.00

Dynamic causal modeling of the EEG in epilepsy

Rosalyn Moran

12.00 - 12.40

Targeting reactive oxygen species in status epilepticus

Matthew Walker

10.40 - 12.40 **Parallel session: Workshop - Outcomes in status epilepticus**

Seminar suite

Chairs: Helen Cross, Holger Lerche

Outcome of childhood convulsive status epilepticus

Richard Chin

Electrographic seizure burden and outcome following paediatric status epilepticus

Cecil Hahn

Why do patients die after status epilepticus?

Sara Hocker

12.40 - 14.00 Lunch break & posters & conference photograph

14.00 - 16.00 **Session 2: Biomarkers**

Seminar suite

Chairs: Peter Crino, Claude Wasterlain

14.00 - 14.40 MicroRNAs as biomarkers and treatment targets in status epilepticus

David Henshall

14.40 - 15.20 Biomarkers of inflammation and reactive oxygen species in status epilepticus; implications for therapy

Annamaria Vezzani

15.20 - 16.00 Blood-brain barrier disruption in status epilepticus: mechanisms and role in epileptogenesis

Alon Friedman

14.00 - 16.00 **Parallel session: Workshop - When backs are against the wall. The clinical management of status epilepticus in specific situations**

Wellcome auditorium

Chairs: Reeta Kälviäinen, Lieven Lagae

Management of status epilepticus in palliative care patients

Reeta Kälviäinen

Status epilepticus in pregnancy - can we frame a uniform treatment protocol?

Ashalatha Radhakrishnan

A ketamine clinical trial in status epilepticus

Eric Rosenthal

16.00 - 16.30 Coffee break

16.30 - 17.40 **Session 3: Physical treatments of status epilepticus**

Wellcome auditorium

Chairs: Tom Bleck, Matthias Koepp

16.30 - 17.10 Hypothermia as a treatment of status epilepticus

Stéphane Legriel

17.10 - 17.40 Neurostimulation in the treatment of status epilepticus

Eugen Trinka

19.30 **Colloquium Dinner**
at The Athenaeum Club, London

08.30 - 10.00 Session 4 : Hullabaloo-Controversies

Wellcome auditorium

Chairs: Meir Bialer, Mark Cook

08.30 - 09.00 Lessons from the ESSET trial
Hannah Cock

09.00 - 09.30 Do neurosteroids have any future in the treatment of status epilepticus?
Mike Rogawski

09.30 - 10.00 What is the role of next generation sequencing in status epilepticus?
Renzo Guerrini

10.00 - 10.30 Coffee break

10.30 - 11.50 Session 5: Big data, seizure detection and prediction

Wellcome auditorium

Chairs: Daniel Lowenstein, Christoph Kellinghaus

10.30 - 11.10 New avenues in seizure detection and prediction
Mark Cook

11.10 - 11.50 Big data – future roles in status epilepticus
Brian Litt

11.50 - 13.00 Lunch & posters

13.00 - 14.00 Satellite Symposium Zogenix

Premature mortality in epileptic encephalopathies: Towards a better understanding?

Wellcome auditorium

13.00 - 13.05 Welcome and introduction
Matthew Walker

13.05 - 13.20 The value of preclinical models?
Benoit Martin

13.20 - 13.35 Neuropathology: Insights and challenges
Maria Thom

13.35 - 13.50 Clinical and family/patient perspectives
Richard Chin

13.50 - 14.00 Where might such understanding lead us?
Matthew Walker

14.00 - 15.30 **Session 6: Genes and paediatrics**

Wellcome auditorium

Chairs: Richard Chin, Renzo Guerrini

14.00 - 14.30 Status epilepticus and genetic variations in sodium channel genes
Holger Lerche

14.30 - 15.00 Status epilepticus and mTOR signaling
Peter Crino

15.00 - 15.30 The role of PCDH19 in refractory status epilepticus
Nicola Specchio

14.00 - 15.30 **Parallel session: Workshop - Novel variants of status epilepticus: de novo status and status due to nerve gas**

Seminar suite

Chair: Tom Bleck

Prospective evaluation of new-onset seizures presenting as status epilepticus

Ahmad Beydoun

Neurological consequences of organophosphate poisoning

Peter Blain

Role of KCNQ2/3 potassium channels in cholinergic status epilepticus

Jaideep Kapur

15.30 - 16.00 Coffee break

16.00 - 16.30 **Session 7: Nobel laureate lecture**

Wellcome auditorium

Chairs: Simon Shorvon, Matthew Walker

New insights into the mechanism of synchronous neurotransmitter disease

Professor James Rothman

16.30 - 18.30 **Session 8: Paediatrics and research networks**

Wellcome auditorium

Chairs: Cecil Hahn, Reetta Kälviäinen

16.30 - 17.00 The treatable causes of neonatal status epilepticus
Ronit Pressler

17.00 - 17.30 The SENSE registry of status epilepticus
Christoph Kellinghaus

17.30 - 18.00 The European Reference Network for rare and complex epilepsies
epiCARE and its role in status epilepticus
Helen Cross

18.00 - 18.30 Update on North American pediatric convulsive status epilepticus
research networks
Tobias Loddenkemper

16.30 - 18.30 **Parallel session: Data blitz – epidemiology, outcome and novel clinical treatments**

Seminar suite

Chairs: Sara Hocker, Monica Ferlisi

International panel: Rajashekhar Reddi, Sashendra Saxena

O-01 Epidemiology of status epilepticus in adults: data on two population based studies in Eastern Finland

Anne-Mari Kantanen, Joni Sairanen, Reetta Kälviäinen (Kuopio, Finland)

O-02 30-day re-admission after status epilepticus in Unites States: Insights from nationwide re-admission database

Monica B. Dhakar, David Thurman, Hiba A. Haider, Andres R. Rodriguez, Nathalie Jette, Edward Faught (Atlanta, New York; United States)

O-03 Status epilepticus mortality score after 30 days of hospital discharge: Development and validation using competing risks analysis

Somsak Tiamkao, Prapassara Sirikarn, Porjai Pattanittum (Khon Kaen, Thailand)

O-04 Cause of death in status epilepticus patients

Somsak Tiamkao, Prapassara Sirikarn, Porjai Pattanittum (Khon Kaen, Thailand)

0-05 Factors related to the development of mesial temporal sclerosis after status epilepticus

Estevo Santamarina, Silvana Sarria, Laura Abraira, Elena Fonseca, Xavier Salas - Puig, Manuel Quintana, Manuel Toledo (Barcelona, Spain)

0-06 Neurological outcome of post-anoxic refractory status epilepticus after aggressive treatment

Simone Beretta, Anna Coppo, Elisa Bianchi, Clara Zanchi, Davide Carone, Andrea Stabile, Giada Padovano, Endrit Sulmina, Graziella Bogliun, Giuseppe Foti, Carlo Ferrarese, Ettore Beghi, Leonello Avalli (Monza, Milano; Italy)

0-07 Prolonged seizures in children

Clodagh Mitchell, Libby Dickson, Paul Leonard, Celia Brand, Ailsa McLellan, Jay Shetty (Edinburgh, United Kingdom)

0-08 Long-term safety and efficacy of add-on cannabidiol (CBD) treatment in patients with Lennox Gastaut Syndrome in an open-label extension trial (GWPCARE5)

Richard Chin, Anup Patel, Antonio Gil-Nagel, Wendy Mitchell, M Scott Perry, Arie Weinstock, Lauren Whyte, Kevan VanLandingham (Columbus, USA, Madrid, Spain, Los Angeles, USA, Fort Worth, USA, Buffalo, USA, Cambridge, UK, Carlsbad, USA)

0-09 Serum neurofilament light chain as a prognostic marker in post-anoxic encephalopathy

Giulio Disanto, Chiara Prosperetti, Claudio Gobbi, Christian Barro, Zuzanna Michalak, Tiziano Cassina, Jens Kuhle, Gabriele Casso, Pamela Agazzi (Lugano, Basel, Ticino; Switzerland)

0-10 Responsive neurostimulation therapy for super-refractory autoimmune epilepsy

Anteneh Feyissa, William Tatum, Jeffrey Britton (Jacksonville, Rochester; United States)

O-11 Updated data on the tocilizumab treatment in new onset refractory status epilepticus

Hyoshin Son, Soon-Tae Lee, Hye-Rim Shin, Eun-Young Kim, Woo-Jin Lee, Kon Chu, Kyung-Il Park, Sang Kun Lee (Seoul, South Korea)

O-12 Combination therapy of immunoglobulin, Rituximab, and Tocilizumab in treating acute autoimmune encephalitis

Woo-jin Lee, Han-Sang Lee, Hye-Rin Shin, Eun-Young Kim, Hyoshin Son, Yong-Won Shin, Hye-yeon Chang, Soon-Tae Lee, Kyung-Il Park, Kon Chu, Sang Kun Lee (Seoul, South Korea)

TUESDAY, APRIL 9TH, 2019

- 08.30 - 10.00** **Session 9: Sponsored talks, part I: Novel drugs and devices in development in status epilepticus and acute seizures**
Wellcome auditorium
Chairs: Daniel Lowenstein, Matthias Koepp
- 08.30 - 09.00 Management of prolonged seizures and myoclonic status in CLN2 disease: has this changed over time?
Nicola Specchio (on behalf of Biomarin Pharmaceuticals, Inc.)
- 09.00 - 09.30 Staccato Alprazolam for acute treatment of seizures
Jouko Isojarvi (on behalf of Engage Therapeutics, Inc.)
- 09.30 - 10.00 Brain distribution and SV2A receptor occupancy of Brivaracetam and Levetiracetam - Comparative PET studies in rodents, primates and healthy human subjects
Felix Rosenow (on behalf of UCB, S.A.)
- 10.00 - 10.30 Coffee break
- 10.30 - 12.00** **Session 9: Sponsored talks, part II: Novel drugs and devices in development in status epilepticus and acute seizures**
Wellcome auditorium
Chairs: Daniel Lowenstein, Peter Kaplan
- 10.30 - 11.00 Non-Convulsive status epilepticus: letting go of old traditions
Josef Parvizi (on behalf of Ceribell, Inc.)
- 11.00 - 11.30 Enabling drug delivery technologies to address unmet needs in epilepsy
Adrian Rabinowicz (on behalf of Neurelis, Inc.)
- 11.30 - 12.00 Vagus nerve stimulation in super refractory status epilepticus
Kristl Vonck (on behalf of LivaNova, Plc.)
- 12.00 - 13.00 Lunch & Posters

- 13.00 - 14.00** **Session 10: Novel treatment approaches in status epilepticus**
Wellcome auditorium
Chairs: Brian Litt, Nadir Bharucha
- 13.00 - 13.30 Lessons from the Sage trial
Andrew Cole
- 13.30 - 14.00 Polytherapy for status epilepticus: the proof of the pudding
Claude Wasterlain
- 14.00 - 14.30 Coffee break
- 14.30 - 16.30** **Session 11: Novel drugs in the treatment of status epilepticus**
Wellcome auditorium
Chairs: Nicola Specchio, Tobias Loddenkemper
- 14.30 - 15.00 New treatments of mitochondrial disease and their impact on status epilepticus
Shamima Rahman
- 15.00 - 15.30 Fenfluramine: a possible treatment for acute repetitive seizures?
Lieven Lagae
- 15.30 - 16.00 The promise of new valproic acid amide derivatives in status epilepticus
Meir Bialer
- 16.00 - 16.30 Propofol prodrug for the treatment of acute repetitive seizures
Mike Rogawski
- 14.30 - 16.30** **Parallel session: Workshop - Data blitz - EEG, basic aspects and experimental treatments**
Seminar suite
Chairs: Rob Wykes, David Henshall
International panel: Chandrashekhar Agrawal, Majid Gaffar
- 0-13** Electrographic predictors of successful weaning from IV anesthetics in refractory status epilepticus

Daniel B. Rubin, Brigid Angelini, Maryum Shoukat, Manohar Ghanta, J. Valdery Moura, Jin Jing, Sahar Zafar, M. Brandon Westover, Sydney Cash, Eric Rosenthal (Boston, United States)

- 0-14** How and whom to monitor for seizures in an intensive care unit: a systematic review and meta-analysis
Chusak Limotai-Atiporn Ingsathit, Kunlawat Thadanipon, Mark McEvoy, John Attia, Ammarin Thakkinstian (Bangkok, Thailand; Newcastle, Australia)
- 0-15** Interaction of GABAA and GABAB antagonists after status epilepticus in immature rats
Pavel Mares, Hana Kubova (Prague, Czech Republic)
- 0-16** The proposed multimodal mechanism of action of cannabidiol (CBD) in epilepsy: Modulation of intracellular calcium and adenosine-mediated signalling
Colin G Stott, Kathryn Nichol, Nicholas A Jones, Royston A Gray, Michaël Bazelat, Benjamin J Whalley (Cambridge, UK; Carlsbad, USA)
- 0-17** Drug-drug interaction studies with coadministration of cannabidiol (CBD) and Clobazam, Valproate, Stiripentol or Midazolam in healthy volunteers and adults with epilepsy
David Critchley, Jerzy Szaflarski, Philip Patsalos, Barry Gidal, Kevan VanLandingham, Gilmour Morrison (Cambridge, UK; University of Alabama at Birmingham, USA; London, UK; Madison, USA; Carlsbad, USA)
- 0-18** NADPH oxidase inhibition modifies antiepileptogenesis and chronic epilepsy
Tawfeeq Shekh-Ahmad, Andreas Lieb, Stjepana Kovac, Lukas Gola, Andrey Y. Abramov, Matthew Walker (London, United Kingdom; Muenster, Germany)
- 0-19** Acute reduction of the Extracellular Trans-Synaptic Protein LGI1 increases network excitability
Eleonora Lugarà, Marco Leite, Elodie Chabrol, Gabriele Lignani, Matthew C. Walker (London, UK)

- 0-20** Argonaute-2 sequencing of rodent status epilepticus models identifies multiple microRNA targets for seizure suppression
Gareth Morris, Morten Veno, Cristina Reschke, Sebastian Bauer, Yan Yan, Tobias Engel, R Jereon Pasterkamp, Jochen HM Prehn, Stephanie Schorge, Felix Rosenow, Jorgen Kjems, David C Henshall (Dublin, Ireland; London, United Kingdom; Aarhus, Denmark; Marburg, Germany; Frankfurt am Main, Germany; Utrecht, Netherlands)
- 0-21** Glio-neuronal imbalance in a stem cell-derived model of Tuberous Sclerosis Complex
Paula Rocktaeschel, Arjune Sen, Zameel Cader (Oxford, United Kingdom)
- 0-22** Efficacy of intranasal Allopregnanolone in a mouse seizure model
Dorota Zolkowska, Michael A. Rogawski (Sacramento, United States)
- 0-23** Anticonvulsant and neuroprotective effects of delayed treatment with Midazolam in a rodent model of organophosphate exposure
Jay Spampanato, Wendy Pouliot, Bonnie Roach, Melissa Smolik, F. Edward Dudek (Salt Lake City, United States)
- 0-24** Rapid intranasal delivery of diazepam utilizing prodrug/enzyme formulations: a promising drug delivery strategy for outpatient treatment of seizure emergencies
Davin Rautiola, Patricia D. Maglalang, Narsihmulu Cheryala, Kathryn M. Nelson, Gunda I. Georg, Jared M. Fine, Aleta L. Svitak, Katherine A. Faltese, Leah R. Hanson, Usha Mishra, Lisa D. Coles, James C. Cloyd, Ronald A. Siegel (Minneapolis, United States)

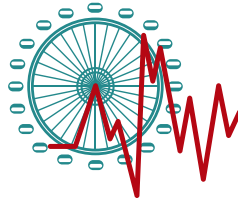
16.30 - 17.00

Valedictum

Wellcome auditorium

Simon Shorvon, Eugen Trinka, Matthew Walter

End of Colloquium and farewell reception



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