IMPERIAL

Hypothermia Update

From the Horse's Mouth

Symposium and Q&A

Thursday 22 – Friday 23 January 2026

Time: 1:00 pm – 5:30 pm London Time

The symposium is free; however, places are limited to 300 delegates on a first-come, first-served basis. Early booking is advised.

Contact: comet@imperial.ac.uk

Registration:

https://imperial-ac-uk.zoom.us/webinar/register/WN_8-GEqPJeQ7KUWQG1hwPYfg#/registration

Symposium Purpose

This symposium brings together principal investigators from landmark randomised controlled trials (RCTs) of hypothermic neuroprotection—trials that have shaped current clinical practice—along with international experts in neonatal neurology, imaging, and neurophysiology to review two decades of evidence on therapeutic hypothermia for hypoxic–ischaemic encephalopathy (HIE) and future directions.

It will highlight the vital role of high-quality RCTs in guiding clinical practice, preventing patient harm, and the substantial international effort required to deliver time-critical neuroprotection trials. An essential symposium for all clinicians and researchers caring for infants with HIE

Landmark Whole Body Cooling Trials

Shankaran et al., NEJM 2005 (n=208): The first clinical trial to demonstrate that whole-body cooling to 33.5°C for 72 hours reduces death or disability in moderate to severe HIE in high-income settings. These findings were confirmed by subsequent trials, including the TOBY Trial (NEJM 2009), and have since transformed clinical practice.

Shankaran et al., JAMA 2017. Optimising Cooling Study (n=364): The first clinical trial to explore longer (120 hours) or deeper (32°C) cooling in moderate to severe HIE. The trial found no additional benefit and identified potential increased risks.

Laptook et al., JAMA 2017. Late Cooling Study (n=168): The first clinical trial of cooling therapy initiated between 6 and 24 hours after birth in late-presenting babies with moderate or severe HIE. The trial reported some neuroprotective effect up to 24 hours, based on Bayesian analysis.

Thayyil et al., Lancet GH 2021. HELIX Trial (n=408): The world's largest cooling trial, conducted in tertiary neonatal intensive care units in South Asia, found no benefit and increased mortality with cooling in moderate to severe HIE, prompting immediate changes to national guidelines restricting cooling use in these settings.

Faix et al., JAMA Pediatrics 2025. PREMIE Trial (n=168): The first clinical trial of cooling therapy in premature babies (33 to 35 weeks) with with moderate or severe HIE used Bayesian analysis and found no benefit and potential harm, leading to restrictions on cooling in this group.

Ongoing: COMET (Cooling in Mild Encephalopathy trial) (n=430) (2025 – 2030): RCT of 430 infants with mild HIE recruited from 50 centres in the UK, Europe, Canada and Australia to examine the effect of cooling on neurodevelopment at 2 years

Day 1: What we know so far

Thursday 22nd January 2026

Zoom Webinar

Time 13:00	**Welcome | Prof Seetha Shankaran and Dr Reema Garegrat**
13:05 – 13:45	**Original Hypothermia and Optimising Cooling Trials** ***Prof. Seetha Shankaran*** 25 min Talk + 15 min Q&A
13:45 – 14:25	**Delayed Hypothermia Trial** ***Prof. Abbot Laptook*** 25 min Talk + 15 min Q&A
14:25 – 15:05	**Hypothermia in LMIC (HELIX Trial)** ***Prof. Sudhin Thayyil*** 25 min Talk + 15 min Q&A
	Short Break (10 minutes)
15:15 – 15:55	**Premature Infant Hypothermia Trial** ***Prof. Roger Faix*** 25 min Talk + 15 min Q&A
15:55 – 16:35	**Telemedicine in the Assessment of HIE** ***Dr. Alexa Craig*** 25 min Talk + 15 min Q&A
16:35 – 17:15	**Explaining Outcomes After HIE to Parents** ***Dr. Monica Lemmon*** 25 min Talk + 15 min Q&A
17:15 – 17:30	**Panel Discussion & Wrap-Up**

Day 2: What we need to know

Friday 23rd January 2026

Zoom Webinar

Time 13:00	**Welcome | Prof Seetha Shankaran and Dr Reema Garegrat**
13:05 – 13:45	**MR Imaging in HIE** ***Prof. Ellen Grant*** 25 min Talk + 15 min Q&A
13:45 – 14:25	**Seizures in HIE** ***Dr. Ronit Pressler*** 25 min Talk + 15 min Q&A
14:25 – 15:05	**Outcomes After Mild HIE** ***Prof. Diedre Murray*** 25 min Talk + 15 min Q&A
	Short Break (10 minutes)
15:15 – 15:55	**Outcomes After Birth Acidosis Without Mild HIE** ***Prof. Hemmen Sabir*** 25 min Talk + 15 min Q&A
15:55 – 16:35	**COOL PRIME Study** ***Prof. Lina Chalak*** 25 min Talk + 15 min Q&A
16:35 – 17:15	**COMET Trial** ***Prof. Sudhin Thayyil*** 25 min Talk + 15 min Q&A
17:15 – 17:30	**Panel Discussion & Wrap-Up**

Speaker Profiles

Professor Seetha Shankaran

Prof. Shankaran is an Emeritus Professor of Pediatrics at University of Texas at Austin and Wayne State University, recognised for leadership in neonatal neuroprotection RCTs. She led the first whole-body hypothermia RCT for HIE and optimising hypothermia trials, which established therapeutic cooling as the standard of care driving global adoption.

Professor Abbot R. Laptook

Prof. Laptook is an Emeritus Professor of Paediatrics at the Warren Alpert Medical School of Brown University and in the Division of Neonatology at Women and Infants Hospital of Rhode Island. He led the delayed-cooling trial, which enrolled 168 infants from 21 large academic centers across the USA over 6 years, followed by neurodevelopmental outcome assessments at 18 months.

Professor Sudhin Thayyil

Professor Thayyil is Chair of Perinatal Neuroscience at Imperial College London, and his work focusses on disease stratification and efficient clinical trials in HIE. He led the HELIX trial and is the chief investigator of the ongoing COMET (Cooling in Mild Encephalopathy Trial), a randomised controlled trial recruiting 430 babies with mild HIE from 50 neonatal units across the UK, Canada, Europe, and Australia, funded by the NIHR HTA program.

Professor Roger G. Faix

Prof. Faix is a Professor in the Division of Neonatology at the University of Utah School of Medicine, providing clinical neonatology care and training paediatric and neonatal advanced-practice clinicians across Utah's NICU systems. He led the PREMIE hypothermia trial, which enrolled 168 infants over 5 years across 19 large academic centers in the USA, followed by outcome assessments at 18 months.

Speaker Profiles

Dr. Alexa Craig

Dr. Craig is Vice Chair of Research at Maine Medical Centre and an Associate Professor of Paediatrics at Tufts University School of Medicine. She leads telemedicine-enabled neonatal encephalopathy assessment research across rural and tertiary NICUs, validating the feasibility of remote neurological staging for HIE and driving statewide telehealth scale-up to reduce geographic variation and improve early access to neuroprotective care for high-risk newborns.

Dr Monica Lemmon

Dr. Lemmon is an Associate Professor of Paediatrics and Chief of Paediatric Neurology and Developmental Medicine at Duke University School of Medicine. Her research defined evidence-based approaches to prognostic communication and shared decision-making for infants with HIE, advancing family-centred neuro-counselling standards and adoption of SDM support tools across neonatal networks.

Professor Ellen Grant

Prof. Grant is Professor of Paediatrics & Radiology at Boston Children's Hospital and imaging research lead at Harvard Medical School. She pioneered multimodal neonatal brain imaging including MRI pulse-sequence innovation, MEG translation for infant epilepsy surgery, and bedside perfusion/oxygenation biomarkers (FDNIRS/DCS), driving improved injury detection, prognosis, and global evidence translation for newborn brain injury care.

Dr. Ronit Pressler

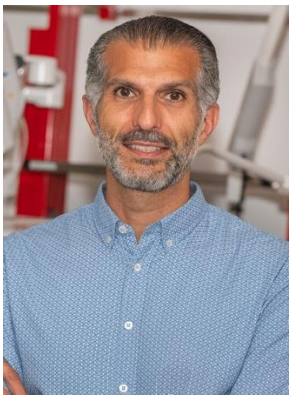
Dr. Pressler is Consultant in Clinical Neurophysiology and Clinical Lead of Telemetry at Great Ormond Street Hospital and Honorary Associate Professor in Developmental Neurosciences at UCL Great Ormond Street Institute of Child Health. She leads therapy innovation and neuromonitoring standards for neonatal seizures, including continuous EEG in HIE, through the ILAE Neonatal Task Force, advancing multi-centre monitoring consistency and improved long-term neurological outcomes.

Speaker Profiles

Professor Deirdre Murray

Prof. Murray is Professor of Paediatrics and Chair in Early Brain Injury & Cerebral Palsy at University College Cork, and Deputy Director of INFANT Research Centre. Her research on early biomarkers and neurodevelopmental outcomes led national cohorts including BiHiVE and the Cork BASELINE Birth Study.

Prof Murray will discuss the risk of adverse childhood outcomes following mild HIE.



Professor Hemmen Sabir

Prof. Sabir is Head of Experimental Neonatology at the Department of Neonatology, University Hospital Bonn. His research is on immune–sensitised hypoxic–ischaemic brain injury and emerging adjunct neuroprotection strategies.

Prof. Sabir will discuss the risk of developmental delays in term-born infants with birth acidosis, even in the absence of mild HIE (PMID: 40822685)

Professor Lina F. Chalak

Prof. Chalak is a Professor of Paediatrics at UT Southwestern Medical Center. Her research focuses on real-time neonatal cerebrovascular and neurovascular biomarkers using NIRS/EEG bundles.

Prof Chalak leads the multi-center COOL PRIME study, which compares neurodevelopmental outcomes in 430 infants with mild HIE across 7 neonatal units that routinely use cooling and 8 units that do not, from the USA and Ireland.

Host Co-Chair

Dr Reema Garegrat

Dr. Garegrat is a Neonatal Neurology Research Fellow at Imperial College London. She is the clinical lead for the ongoing EMBRACE study (Erythropoietin Monotherapy in Neonatal Encephalopathy in Low- and Middle-Income Countries) and serves as the neurological training lead for the COMET trial, certifying over 800 clinicians from more than 40 NHS hospitals.