



Hydrocephalus Society
International Society for Hydrocephalus
and Cerebrospinal Fluid Disorders

HYDROCEPHALUS 2025 WORLD CONGRESS

5-8 September
Toulouse, France

www.hydrocephalus-meeting.com



Detailed Scientific Programme

Friday, 5 September 2025

	Caravelle 1				
	Educational Seminar: Beyond Idiopathic Normal Pressure Hydrocephalus				
	Chairs: Giorgio Palandri, TBA				
12:30 - 13:00	Welcome and get together				
13:00 - 13:15	After hydrocephalus: redefining CSF-related diseases Mats Tullberg				
13:15 - 13:30	iNPH in the modern landscape of neurodegenerative diseases Chifumi Iseki				
13:30 - 13:45	Functional neurosurgery iNPH. A neuromodulation hypothesis Benjamin Elder				
13:45 - 14:00	Hallmarks and biomarkers of NPH: moving towards precision medicine Eric Schmidt				
14:00 - 14:30	Coffee Break				
14:30 - 14:45	Neuroradiology of iNPH: beyond conventional images Olivier Baledent				
14:45 - 15:00	Neurophysiology in NPH: measuring what matters Ahmed Toma				
15:00 - 15:15	Beyond iNPH: a holistic approach to patient care Sevil Yasar				
15:15 - 15:45	Discussion				
15:45 - 16:15	Award Ceremony				

Saturday, 6 September 2025

	Auditorium de Saint Exupéry		Cassiopée		Spot
07:00 - 08:00	Registrations				
08:00 - 08:30	Opening of the Congress				
08:00 - 08:15	Welcome Address Mats Tullberg, Hydrocephalus Society President				
08:15 - 08:30	Welcome to Toulouse Eric Schmidt, Hydrocephalus 2025 World Congress Congress President				
08:30 - 09:00	Session 1: Marmarou Lecture - Certainty and uncertainty in hydrocephalus				
08:30 - 09:00	What is certain and what is uncertain in hydrocephalus from CSF dynamics perspective Zofia Czosnyka & Marek Czosnyka				
09:00 - 10:00	Session 2: Fundamental physics applied to Hydrocephalus	09:00 - 10:00	Session 3: Neuroimaging	09:00 - 10:00	Session 4: Adult Hydrocephalus
09:00 - 09:15	Fluid & solid interaction modelling to better understand brain organisation and functions Lars Willas Dreyer	09:00 - 09:10	Deep learning-based framework for automated CSF segmentation and differentiation between idiopathic normal-pressure hydrocephalus and Alzheimer's disease on MRI Kyunghun Kang	09:00 - 09:10	Prediction of Response to Ventriculoperitoneal Shunt in NPH with Frontal and Motor TMS Evoked Potentials Tal Davidy
09:15 - 09:30	Fluid mechanics of the neurovascular system Sylvie Lorthois	09:10 - 09:20	Digital Twin Insights on Cerebrospinal Fluid Dynamics and Drug Pharmacokinetics Across the Human Lifespan, in Nonhuman Primates, and Minipigs Bryn Martin	09:10 - 09:20	Early shunt surgery in patients with probable idiopathic normal pressure hydrocephalus Oskar Ekman
09:30 - 09:45	Measuring Neural Dynamics with MRI John Oshinski	09:20 - 09:30	Impact of Symptom Duration on Brain Imaging Findings in Spontaneous Intracranial Hypotension Petra Cimflova	09:20 - 09:30	Correlation Between Caregiver Burden and the Normal Pressure Hydrocephalus (Hakim's) triad: A Patient-Caregiver Dyad Analysis Juan Daniel Ramirez Munoz
09:45 - 10:00	Discussion	09:30 - 09:40	Idiopathic normal pressure hydrocephalus: Validation of the DESH score in the capital region of Denmark Bjarni Johansson	09:30 - 09:40	Epidemiology of iNPH in Korea: Analysis of Prevalence, Mortality, and Treatment Trends. Minju Kim
		09:40 - 09:50	Cerebrospinal Fluid Flow within Ventricles and Perivascular Subarachnoid Space Evaluated by Velocity Selective Spin Labeling MRI Jiadli Xu	09:40 - 09:50	Patient symptomatic self-assessment in idiopathic normal pressure hydrocephalus; flawed or future framework? Oskar Ekman

		09:50 - 10:00	Phase-Contrast MRI Assessment of Venous Flow in Chiari Syndrome Heimiri Monnier	09:50 - 10:00	Cognitive assessment methods and outcomes following shunt surgery in idiopathic normal pressure hydrocephalus (iNPH): a systematic review and meta-analysis Lisa Healy
10:00 - 10:30 Coffee Break & Exhibition					
10:30 - 11:50	Session 5: Young Investigator Awards I				
10:30 - 10:40	Idiopathic Normal Pressure Hydrocephalus: Incidence, Prevalence, and Progression in a Large Population-Based Cohort of Older Adults Clara Constantinescu				
10:40 - 10:50	Cognitive-Linguistic Improvements after Shunt Surgery in Idiopathic Normal Pressure Hydrocephalus: Insights from Eye-Tracking during Lexical Retrieval Tasks Seongeun Kwon				
10:50 - 11:00	Bioinspired anti-fouling catheter material and design Haritosh Patel				
11:00 - 11:10	Comparison of Gray Matter Alterations Between Normal Pressure Hydrocephalus and Alzheimer's Disease Hongliang Li				
11:10 - 11:20	Ventriculosubgaleal Shunting May Reduce Shunt Dependency in Preterm Post-Hemorrhagic Hydrocephalus: Evidence from a Single Tertiary Center Rafael Tiza Fernandes				
11:20 - 11:30	Real-time symptom-ICP correlation enabled by long-term home monitoring. Sang Ho Kim				
11:30 - 11:40	Diagnostic process, misdiagnosis, and bias in suspected idiopathic intracranial hypertension: A retrospective observational cohort study Nadja Skadkaer				
11:40 - 11:50	Refining Treatment Paradigms in Idiopathic Normal Pressure Hydrocephalus: A Patient Centric Cluster-Based Approach to Shunt Selection Arya Abaee				
11:50 - 12:30	Hydrocephalus Society Annual General Meeting				
12:30 - 12:45	iNPH Guidelines Group Update				
12:45 - 12:50	Fluids and Barriers of the CNS Update				
12:50 - 13:50	Industry Sponsored Lunch Seminar				
13:50 - 15:35	Session 6: Cerebrospinal fluid mechanics	13:50 - 15:30	Session 7: Adult Hydrocephalus	13:50 - 15:30	Session 8: Pediatric Hydrocephalus
13:50 - 14:05	Non-invasive continuous monitoring of cranial volume composition Vartan Kurtkuoglu	13:50 - 14:00	Brain functional networks in NPH. A systems approach Giulia Bommarito	13:50 - 14:00	Genetic and molecular determinants of the human CSF-ventricular system Kristopher Kahle
14:05 - 14:20	Machine learning to manage fluid mechanics in hydrocephalus Fabian Flürenbrock	14:00 - 14:10	Reversibility of brain function alterations: insights from NPH Nicole Keong	14:00 - 14:10	T-cell infiltration is associated with increased reactive astrocyte and proinflammatory cytokine activity in post-hemorrhagic hydrocephalus Maria Garcia Bonilla
14:20 - 14:35	Modeling glymphatic transport during sleep Alexandra Vallet	14:10 - 14:20	CSF lipid profiles differ between iNPH patients and healthy controls Trine Toft-Bertelsen	14:10 - 14:20	Awareness, screening and humanitarian neurosurgery around the international hydrocephalus day Mama You Esperance Broalet
14:35 - 14:50	Dynamic intracranial compliance to better understand NPH Anne Benninghaus	14:20 - 14:30	Distinct White Matter Connectivity Profiles in iNPH Revealed by Quantitative Anisotropy Connectometry Daniele Piccolo	14:20 - 14:30	Reducing Cellular Adhesion on Shunt Catheters Using Zwitterionic Surface Modification: A Bioreactor-Based Study Amirhossein Shahriari
14:50 - 15:05	Measuring and modelling CSF pulsatility Sara Qvarlander	14:30 - 14:40	Rate of Symptom Deterioration Predicts Postoperative Outcome in Idiopathic Normal Pressure Hydrocephalus Johan Virhamar	14:30 - 14:40	Modeling Ciliary Genes in Xenopus Uncovers Novel Mechanisms for Congenital Hydrocephalus Engin Deniz
15:05 - 15:15	Toward smart shunting: Predicting body position using artificial intelligence in patients undergoing intracranial pressure monitoring Emalee Burrows	14:40 - 14:50	DTI-ALPS index in idiopathic Normal Pressure Hydrocephalus before and after ventriculoperitoneal shunt surgery Nikolaos Saridakis	14:40 - 14:50	Optimization of human neural stem cells in transparent anionic nanofibrillar hydrogel as a model for the ventricular and subventricular zone. Sydney Milo
15:15 - 15:25	Cardiac frequency by itself can change CSF dynamics in the brain compartments. A new realistic 2D Numerical model investigation. Olivier Baledent	14:50 - 15:00	Reducing Risk in the Management of NPH Daniele Rigamonti	14:50 - 15:00	Analysis of Hydrocephalus Cases in Brazil: Prevalence, Mortality, and Regional Differences (2000–2023) Kim Wouters
15:25 - 15:35	A model of low-pressure hydrocephalus as windkessel impairment due to low brain elastance Michael Egnor	15:00 - 15:10	Hakim Disease Diagnosis with Plasma-Based Alzheimer's Detection Madoka Nakajima	15:00 - 15:10	A stereotactic injection method to establish a clinically relevant germinal matrix hemorrhage murine model Gio Jison
		15:10 - 15:20	Non-Invasive Tap Test ("Pumping") to Replace Invasive Diagnostics in Underdrained Shunted NPH Patients? Uwe Kehler	15:10 - 15:20	Predicting endoscopic third ventriculostomy with choroid plexus cauterization (ETV/CPC) outcome in infant hydrocephalus Pei-Yi Lin
		15:20 - 15:30	Outcomes in 481 Patients with iNPH Shunt Operated With or Without a Previous Cerebrospinal Fluid Tap Test – a Single Center Longitudinal Follow-Up Study Hanna C Persson	15:20 - 15:30	External hydrocephalus: a hidden cause of additional morbidity after aneurysmal subarachnoid haemorrhage. A retrospective study of 89 adult patients Laurent Gergele
15:30 - 16:05 Coffee Break & Exhibition					
16:05 - 16:15	Special Talk				

16:05 - 16:15	Interim Results of a Randomized, Blinded Placebo-Controlled Trial of the Efficacy of Shunting for Idiopathic Normal Pressure Hydrocephalus Mark Hamilton				
16:15 - 17:45	Session 9: Neuroimaging	16:15 - 17:45	Session 10: Experimental Hydrocephalus	16:15 - 17:30	Session 11: Young Investigators Special Session
16:15 - 16:35	Spontaneous Intracranial Hypotension and Idiopathic Intracranial Hypertension: Clinical Insights, Brain Volume Evolution, and Pressure Dynamics After Treatment Federico Cagnazzo	16:15 - 16:25	Influence of CSF system experimental blockade on hydrocephalus development Ivana Jurjevic	16:15 - 16:20	Session Introduction Anne Benninghaus & Fabian Flürenbrock
16:35 - 16:45	Cerebrospinal fluid redistribution after shunt placement Marcel Wrantjes	16:25 - 16:35	Inhibition of TRPV4 as a pharmacological treatment of posthemorrhagic hydrocephalus. Trine L. Toft-Bertelsen	16:20 - 16:30	Problem-Solving with Purpose: Navigating a Career in Bioengineering and Hydrocephalus Carolyn Harris
16:45 - 16:55	Are arachnoid granulations necessary for CSF physiology? Milan Rados	16:35 - 16:45	Brain pathology in the model mice of chronic hydrocephalus concomitant with Alzheimer's disease Kaito Kawamura	16:30 - 16:40	Lecture Title TBA Michael Williams
16:55 - 17:05	Diagnostic Accuracy of Artificial Intelligence-Based Imaging for Idiopathic Normal Pressure Hydrocephalus: Systematic Review and Meta-Analysis Stefeson Gomes Cabral Junior	16:45 - 16:55	Shunt-related CSF overdrainage – a multicenter consensus definition Marianne Juhler	16:40 - 16:50	Cerebral Hydrodynamics and Translational Engineering: Toward a Smarter Future for Hydrocephalus Management Eric Schmidt
17:05 - 17:15	Validating Post-Operative Trans-Burr Hole Ultrasound to Measure Cerebral Ventricular Size in Hydrocephalus: Comparison of Ultrasound to Computed Tomography Ryan Lee	16:55 - 17:05	Alteration of neuroinflammation and intracranial microbiome with antibiotic impregnated catheters Dipankar Biswas	16:50 - 17:10	Panel Discussion and Q&A with Speakers
17:15 - 17:25	The role of MRI diffusion tensor imaging (DTI) as neuroimaging biomarker in the diagnostic assessment of normal pressure hydrocephalus Francesco Corrivetti	17:05 - 17:15	CSF Proteomics in Spontaneous Intracranial Hypotension: A metabolic disease? Amir El Rahal	17:10 - 17:30	Networking Activity
17:25 - 17:35	Video-oculography: A Diagnostic Tool for Normal Pressure Hydrocephalus? Stephane Goutagny	17:15 - 17:25	Effect of anesthesia and blood oxygenation on rodent CSF secretion. Thomas Nielsen		
17:35 - 17:45	CDESH Decreases After Shunting and Changes Correlate Strongly With Measures of Gait Improvement Jeffrey Gunter	17:25 - 17:35	Aquaporin 1 is not required for CSF secretion and brain fluid homeostasis in mice Nana Macaulay		
		17:35 - 17:45	Role of the choroid plexus in amyloid- β clearance in PTPN20 knockout mice Ryo Miyahara		

Sunday, 7 September 2025

	Auditorium de Saint Exupéry		Cassiopée		Spot
08:30 - 09:20	Session 12: Hydrocephalus Society & Hydrocephalus Association Joint Session - TITLE TBA				
08:30 - 08:45	Strengthening hydrocephalus care, research and awareness through collaboration Diana Gray, Hydrocephalus Association President				
08:45 - 09:00	Lecture Title TBA Mats Tullberg, Hydrocephalus Society President				
09:00 - 09:20	Roundtable Discussion				
09:20 - 10:50	Session 13: Young Investigator Awards II				
09:20 - 09:30	Exploring the Role of Lateral Ventricle Geometric Features in Detecting Extracellular Deposition of Amyloid- β Peptides in Patients with Idiopathic Normal Pressure Hydrocephalus Andrius Penkauskas				
09:30 - 09:40	Normal pressure hydrocephalus: the role of emergency services and primary care in its early diagnosis Lucia Rodriguez				
09:40 - 09:50	Evaluating the Additive Properties of Differential Pressure Valves in a Novel Benchtop Shunt Model Sai Chandan Reddy				
09:50 - 10:00	Brain Tissue Mimicking Hydrogel for Benchtop Investigation of Hydrocephalus Mechanisms Gwendolyn Williams				
10:00 - 10:10	Postoperative Delirium Following CSF Shunt Surgery for Normal Pressure Hydrocephalus: A 5-Year Retrospective Analysis of 326 Patients Aimilia Moraiti				
10:10 - 10:20	Gait Outcomes of Wheelchair Dependent Patients with Idiopathic Normal Pressure Hydrocephalus Following Shunt Placement Abdelrahman Hamouda				
10:20 - 10:30	Quantitative gait analysis using a deep learning-based application reveals distinct upper and lower limb movement patterns in Hakim's and Parkinson's disease Atsuhito Taishaku				
10:30 - 10:40	Biomarkers of Neurodegeneration: Comparison Between INPH, Lova, and Other Neurodegenerative Diseases Laura Ceccarelli				
10:40 - 10:50	Hypnatremia in Pediatric Patients Under 2 Years With Non-Tumour Hydrocephalus Seen at the Kenyatta National Hospital Robert Tabu				

10:50 - 11:20	Coffee Break & Exhibition				
11:20 - 12:45	Session 14: Bridging the Gap	11:20 - 12:45	Session 15: Adult Hydrocephalus	11:20 - 12:45	Session 16: Technical Advances in Treatment and Diagnosis
11:20 - 11:35	Update on basal ganglia and thalamo-cortical circuit dysfunction in NPH Fredrik Lundin	11:20 - 11:35	NPH: A Silent Challenge with Far-Reaching Societal Consequences Fernando Pinto	11:35 - 11:45	Brain and eye in Space : Impact of real and simulated microgravity Anne Pavy le Traon
11:35 - 11:45	The neurological foundations of hydrocephalus: A critical perspective Cristopher Carswell	11:35 - 11:45	A study on optimal valve pressure after ventriculoatrial shunt in patients with normal pressure hydrocephalus Ryosuke Takagi	11:45 - 11:55	The Brain in Space: MRI Quantification of Structural Changes to the Cerebrospinal Fluid, Brain and Eye in Astronauts Bryn Martin
11:45 - 11:55	Feasibility and safety of the non-invasive tap test ("pumping-test") in shunted NPH-Patients Uwe Kehler	11:45 - 11:55	Necessity of the Tap Test in Patients with DESH: Validation of the Japanese Treatment Guidelines Ryo Oike	11:55 - 12:05	CSFsim: A Simulation Framework for Cerebrospinal Fluid Dynamics and Hydrocephalus Shunt Systems Fabian Fluerebrock
11:55 - 12:05	Home ICP monitoring – a new paradigm for management of patients with hydrocephalus Simon Malpas	11:55 - 12:05	From MRI Imaging to Infusion: Investigating the Role of Convexity Tightness in CSF Circulation Impairment Afroditi Lalou	12:05 - 12:15	New Ce-Authorized Non Invasive Adjustable CSF Flow Device With a Real Off Function For the Treatment of Complex Hydrocephalus Jan Muegel
12:05 - 12:15	How low can we go? The optimal initial opening pressure setting for idiopathic normal pressure hydrocephalus Rodolfo Reis	12:05 - 12:15	Stability analysis of Intracranial pressure Michael Egnor	12:15 - 12:25	Endoscopic Ventricular Lavage versus Conventional External Drainage in Spontaneous Intraventricular Haemorrhage: Matched-Cohort Evidence of Superior Clot Clearance and Outcomes Thomas Radovnick
12:15 - 12:25	The textbooks were right - the intracranial pressure-volume relationship holds up in long-term, at-home ICP monitoring of hydrocephalus. Simon Malpas	12:15 - 12:25	Spontaneous intracranial hypotension (SIH) affects all ages and body types: results from 397 patients. Katharina Wolf	12:25 - 12:35	Management of Chronic Subdural Hematoma in Spontaneous Intracranial Hypotension Amir El Rahal
12:25 - 12:35	A link between Radiological Features and Intracranial Pressure Waveform Components in Normal Pressure Hydrocephalus Magdalena Kaspricz	12:25 - 12:35	DRAIN – Double-blind Randomized Acetazolamide trial in Idiopathic Normal pressure hydrocephalus Johan Virhamar	12:25 - 12:35	Quantitative Analysis of Neurofluid Dynamics in Chiari Syndrome: Toward a Better Understanding of Symptom Genesis Pauline Cartier
12:35 - 12:45	Upright Cerebral Venous Pressure and Its Implications for Glymphatic Driving Forces and Sulcal Narrowing in Normal Pressure Hydrocephalus Yoshinaga Kajimoto	12:35 - 12:45	Advancing Hydrocephalus Patient Education and Support: Implementing and Assessing Improvements in a Virtual Normal Pressure Hydrocephalus Support Group Jeff Chen	12:35 - 12:45	Diagnostic Accuracy of Shuntography in Suspected Cerebrospinal Fluid Shunt Malfunction: A Safe and Effective Non-Invasive Imaging Modality Zeid Abussuud
12:45 - 14:00	Industry Sponsored Lunch Seminar				
14:00 - 15:30	Session 17: Young Investigator Awards III				
14:00 - 14:10	Assessing intracranial fluid dynamics using funduscopy Mathias Just Notrvig				
14:10 - 14:20	Cognitive Reasoning in Adult Ventriculoperitoneal (VP) Shunt Surgery: A Human Factors Pilot Study Yuewei Tao				
14:20 - 14:30	Valve-agnostic cranial implant in normal pressure hydrocephalus ventriculoperitoneal shunting: A case series Cristopher Lane				
14:30 - 14:40	Management of shunted hydrocephalus during transition from childhood to adulthood: is routine clinic review required? Nicholas Gikas				
14:40 - 14:50	Assessing Cognitive Change in INPH Using the Sound Symbolic Words Texture Recognition Test (SSWTRT) Chihiro Kamohara				
14:50 - 15:00	Idiopathic Normal Pressure Hydrocephalus diffusion imaging abnormalities in relation to a biomechanical model of ventricular expansion Martina Del Giovane				
15:00 - 15:10	Early cranioplasty as a risk factor for post-traumatic hydrocephalus Emily Blakeney				
15:10 - 15:20	Endoscopic Third Ventriculostomy versus Ventriculoperitoneal Shunt for Idiopathic Normal Pressure Hydrocephalus: A Systematic Review and Updated Meta-analysis Raphael Bertani				
15:20 - 15:30	Application of machine learning-based clustering to identify clinical subgroups and treatment outcomes in normal pressure hydrocephalus Emalee Burrows				
15:30 - 16:10	Coffee Break & Exhibition				
16:10 - 17:20	Session 18: Pediatric Hydrocephalus	16:10 - 17:30	Session 19: Neuroimaging	16:10 - 17:30	Session 20: Geriatric Hydrocephalus
16:10 - 16:20	Genotype vs phenotypes of hydrocephalus Kristopher Kahle	16:10 - 16:20	Diagnostic utility and clinical correlates of automated MRI indices in Normal Pressure Hydrocephalus (NPH) Padraig Osuilleabhain	16:10 - 16:20	From home to care home: the role of hydrocephalus in loss of independence Lawrence Bories
16:20 - 16:30	Hydrocephalus, an evolutionary perspective Jean Chazal	16:20 - 16:30	Comparison of infusion-derived and physiological craniospinal compliance in chronic hydrocephalus patients Kimi Owashi	16:20 - 16:30	Bridging gaps in Geriatric Neurosurgery: a public and professional perspective on Normal Pressure Hydrocephalus in Brazil Caio Arruda Maciel
16:30 - 16:40	Research Priorities for Improving Cognitive and Neuropsychological Outcomes in Hydrocephalus Monica Chau	16:30 - 16:40	Volumes and velocities: Meta analysis of PC MRI studies in normal pressure hydrocephalus Petr Skalicky	16:30 - 16:40	Role of Multidisciplinary Approach in the Diagnosis and Therapy of Normal Pressure Hydrocephalus: A Single Center Experience Borsa Stefano

16:40 - 16:50	Dual-Approach Surface Engineering of Ventricular Catheters to Reduce Cellular Occlusion in the Treatment of Hydrocephalus Seunghyun Lee	16:40 - 16:50	Can semi-automated brain morphometrics distinguish between asymptomatic and symptomatic type I Chiari malformation, and age and gender matched controls? Dipankar Biswas	16:40 - 16:50	Correlation between Cerebrospinal fluid Tau biomarkers and CSF Tap Test Responsiveness in INPH Patients Yan Xing
16:50 - 17:00	Proximal Hole Disocclusion via Retrograde Flushing: In Vitro Evaluation of a device Michael Le	16:50 - 17:00	Cerebral blood and CSF flow dynamics in healthy elderly subjects and chronic hydrocephalus patients Kimi Owashi	16:50 - 17:00	Squishy brain: a poroelastic mathematical model of the brain tissue to study parenchymal fluid flow and clearance Matilde Fiori
17:00 - 17:10	Change in optic nerve sheath diameter and cerebrospinal fluid shunt failure in children Brian Hanak	17:00 - 17:10	The utility of phase-contrast MRI and ICP monitoring in Chiari I Malformations: a systematic review Shivani Rajkumar	17:00 - 17:10	A minimally invasive approach for disconnection of cerebrospinal fluid venous fistula David Rowland
17:10 - 17:20	Long-term Clinical Outcomes of the Flow Ventricular Catheter for Hydrocephalus: a Follow-up Study Marcelo Galarza	17:10 - 17:20	Age-Related Changes in Venous Drainage in Adults with Chiari Syndrome Assessed by Phase-Contrast MRI Heimiri Monnier	17:10 - 17:20	Was Foramen Magnum Decompression Surgery Inappropriately Performed in Patients with Spontaneous Intracranial Hypotension? Gillian Pace
		17:30 - 17:30	Study protocol: A randomized clinical trial on non-invasive evaluation of shunt obstruction in Adult Hydrocephalus at two Hydrocephalus research centers in Sweden Rebecca Groenning	17:30 - 17:30	Orthostatic headache: treatment response stratified by spinal imaging findings Olga Fermo
Monday, 8 September 2025					
	Auditorium de Saint Exupéry		Cassiopée		Spot
08:00 - 10:20	Session 21: Hydrocephalus Society - EANS - CSF Leak Association Session	08:00 - 09:20	Session 22: Technical Advances in Treatment and Diagnostics	08:00 - 09:20	Session 23: Adult Hydrocephalus
08:00 - 08:20	Introduction to SIH: Clinical Presentation & Differential Diagnosis Manjit Mantharu	08:00 - 08:10	Delivering high-quality care with low-tech solutions for hydrocephalus management? Romain Manet	08:00 - 08:10	Predictive Value of Risk Analysis Index and Modified Frailty Index for Gait Outcomes Following Shunt Surgery in Idiopathic Normal Pressure Hydrocephalus Abdelrahman Hamouda
08:20 - 08:40	Imaging basics and recent advances Lalani Carlton Jones	08:10 - 08:20	Optimizing Hydrocephalus Surgery: Preoperative Simulation and Symptom Improvement Prediction Shigeki Yamada	08:10 - 08:20	Impact of volume input frequency on craniospinal compliance: a spectral approach Agnieszka Kazimierska
08:40 - 09:00	From bloodpatch to endovascular therapy Tomas Dobrocky	08:20 - 08:30	B-waves in noninvasive capacitance signal correlate with B-waves in ICP in recordings of 51 patients Andreas Spiegelberg	08:20 - 08:30	Is ICP really normal in NPH? - First insights from home-based telemetric monitoring Sang ho Kim
09:00 - 09:20	Surgical treatment of spinal CSF leaks Juergen Beck	08:30 - 08:40	Laparoscopic Peel-Away Sheath Technique versus Mini-Open Laparotomy for Lumboperitoneal Shunt in Idiopathic Normal Pressure Hydrocephalus: A Prospective Comparative Cohort Study Xuhao Fang	08:30 - 08:40	Feasibility of patient-led home ICP monitoring Sang Ho Kim
09:20 - 09:40	Roundtable Discussion: How to get started in SIH, how to build a center, what convinced you to take up the cause of SIH Leak patients, post-treatment headaches - what do we miss? Moderated by Rigmor Højland Jensen and Eric Schmidt	08:40 - 08:50	Wearable, non-invasive spot check measurements of shunt flow via thermal anisotropy: device advancements for improving depth of measurement. R. Chad Webb	08:40 - 08:50	Effect of a Structured Exercise Program on Center of Mass Variables During Walking in Individuals with Idiopathic Normal Pressure Hydrocephalus: A Preliminary Study Sunee Bovonsunthonchai
		08:50 - 09:00	Shunt flow throughout daily life: Data from the first use of continuously worn cerebrospinal fluid shunt flow monitors on 25 shunted hydrocephalus subjects over 30-day periods.	08:50 - 09:00	Handwriting analysis in patients with normal pressure hydrocephalus: a study on 18 patients Gianpaolo Petrella
		09:00 - 09:10	Beyond Monitoring at Rest: Real-Life Insights into ICP Dynamics Andreas Bunge	09:00 - 09:10	Pre- and Post-shunt Evaluation of Auditory Signs in Patients with Normal Pressure Hydrocephalus Fernando Hakim
		09:10 - 09:20	Higher harmonic centroid in hydrocephalus: early insights from telemetric intracranial pressure monitoring. Sang Ho Kim	09:10 - 09:20	Development of a Pantone-Based Semi-Quantitative Scale for Standardized Cerebrospinal Fluid Color Assessment in Subarachnoid Hemorrhage Roser Garcia Armengol
09:40 - 09:50	Socioeconomic effect of surgical treatment of spinal CSF Leaks in Spontaneous Intracranial Hypotension Amir El Rahal	09:20 - 10:20	Session 24: Intracranial Pressure	09:20 - 10:20	Session 25: Adult Hydrocephalus
09:50 - 10:00	Spinal CSF volumetry in patients with SIH before and after treatment Eike Immo Piechowiak	09:20 - 09:30	Beyond the Cardiac Pulse Waves: Gait-Related Oscillations in Intracranial Pressure Profiles Andreas Bunge	09:20 - 09:30	Hydrocephalus does not matter Gianpaolo Petrella
09:50 - 10:00	Locating Spinal Leaks in Spontaneous Intracranial Hypotension: How Many Dynamic Myelographies Does It Take? Toma Dobrocky	09:30 - 09:40	Establishing a Standard Protocol for Telemetric ICP Monitoring: Learning Points from Externalized Shunt Systems Hassan Bin Ajmal	09:30 - 09:40	Physical Therapy-Evaluated Shunt Taps in the Management of Incomplete Response and Relapse in Shunted Idiopathic Normal Pressure Hydrocephalus Ryan Lee

10:00 - 10:10	Evaluation of Finger Function in INPH: A Comparative Cueing Study Yoko Shimizu	09:40 - 09:50	Neurosurgical Management of Idiopathic Intracranial Hypertension (IIH): Preliminary Insights From the European Association of Neurosurgical Societies Guidelines Filippos Chelmis	09:40 - 09:50	Challenges in Neuropsychological Improvement After Shunt Surgery for Idiopathic Normal Pressure Hydrocephalus Ondrej Bradac
10:10 - 10:20	Investigation of coexisting disproportionately enlarged subarachnoid space hydrocephalus (DESH) on imaging in cases of dementia with Lewy bodies (DLB) Chifumi Iseki	09:50 - 10:00	Impact of Distal Catheter Tip Placement on Ventriculoperitoneal Shunt Dynamics Martina Roncoroni	09:50 - 10:00	Implementing a clinical pathway for Normal Pressure Hydrocephalus (NPH) : A standardized approach for the care of NPH Patients undergoing ventriculoperitoneal shunt insertion Jeff Chen
		10:00 - 10:10	What happens to the brain after a CSF tap-test? Marcel Warntjes	10:00 - 10:10	The economic impact of underdiagnosis in idiopathic normal pressure hydrocephalus Gianpaolo Petrella
		10:10 - 10:20	Investigating the utility of ICP monitoring in Chiari I Malformation: insights from a long-term observational study Shivani Rajkumar	10:10 - 10:20	Identifying Secondary Hydrocephalus in Post-Intensive Care Patients: An Infusion Study Approach Laurent Gergele
10:20 - 11:00	Coffee Break & Exhibition				
11:00 - 12:30	Session 26: Hydrocephalus Society - Society for Research into Hydrocephalus and Spina Bifida Joint Session	11:00 - 12:35	Session 27: Oral Flash Presentations of ePosters	11:00 - 12:35	Session 28: Oral Flash Presentations of ePosters
11:00 - 11:15	Seession introduction Pat MacAllister	11:00 - 11:05	Hydrocephalus in Leptomenigeal Metastasis May Lack Typical Imaging Features of Normal Pressure Hydrocephalus Ko-Ting Chen	11:00 - 11:05	Exploring the role of ICP waveform morphology and tracing patterns in Chiari I Malformation: implications for clinical and research paradigms Shivani Rajkumar
11:15 - 11:30	Modulating CSF dynamics for hydrocephalus therapy Hannah Botfield	11:05 - 11:10	No Correlation Between Functional Dopaminergic Imaging, Iron Load and CSF Outflow Resistance in Suspected Idiopathic Normal Pressure Hydrocephalus Lubin Klotz	11:05 - 11:10	Is Davson's Equation Reliable in Hydrocephalus? A Systematic Review and Meta-Analysis Ihsane Olakorede
11:30 - 11:40	Benchtop Investigation of Tissue Pull-In of Shunt Catheters in Hydrocephalus Kenae Thompson	11:10 - 11:15	Hierarchical Bayesian Modeling Improves Shunting Outcome Prediction in NPH Patients Jeremy Chabros	11:10 - 11:15	Adjusting the Unknown: Intracranial Pressure and clinical outcomes in Idiopathic Intracranial Hypertension Using novel monitoring techniques Hannah Eskender
11:40 - 11:50	A material-mediated decrease in neurological cell adhesion to hydrocephalus shunt catheters Victoria Carr	11:15 - 11:20	Transmission of pulsatility across the level of the foramen magnum in Chiari syndrome: alteration of mobile compliance? Pauline Carlier	11:15 - 11:20	Telemetric Intracranial Pressure Monitors: Current Status and Future Trends – A Systematic Review Andreas Bunge
11:50 - 12:00	Ventricular and Choroid Plexus Volume Changes in Alzheimer's and Non-Alzheimer's Dementias: Implications for Shared Pathological Features and Cerebrospinal Fluid Dynamics Yuyue Qiu	11:20 - 11:25	Diagnostic Accuracy of Thermal Transcutaneous Flow Compared with Radionuclide Shunt Patency Study to Detect Shunt Obstruction in Adults with Hydrocephalus- A Cross Sectional Analytic Study Naomi Abel	11:20 - 11:25	Surgical findings in chronic Post Dural Puncture Headache syndrome Amir El Rahal
12:00 - 12:10	Investigating choroid plexus organogenesis using an organoid model Celine Thao-Quyen	11:25 - 11:30	Continuous telemetric intracranial pressure measurement (ctICPM) assessing the effect of different body positions, activity, time and shunt valve adjustments Vincent Prinz	11:25 - 11:30	Influence of CSF volume changes and body position on cranial and spinal CSF pressure in patients with INPH Nenad Kudelic
12:10 - 12:20	Changes in choroid plexus macrophages across neonatal development in a genetic model of hydrocephalus Audrey Kruse	11:30 - 11:35	Pure Endoscopic Cysto Ventriculostomy for Arachnoid and Gliopendymal Cysts: technical aspects in a cohort series with long follow up. Francesco Tuniz	11:30 - 11:35	Estimation of Cerebrospinal Fluid Outflow Resistance in an Electrical Model in Simulink Based on a Short-Term Reference ICP Recording Leszek Herbowksi
12:20 - 12:30	Discussion	11:35 - 11:40	Fluid dynamics model of the cerebral ventricle system Amy Huang	11:35 - 11:40	Application of Lumboperitoneal Shunting in the treatment of complex cranial wound healing disorders Vincent Prinz
		11:40 - 11:45	Wireless Monitoring of CSF Flow Rate, Pressure, and Device Patency for Timely Diagnosis of Hydrocephalus Shunt Failure Sascha Lee	11:40 - 11:45	Expanding Hakim's Triad: Shunting Enhances Upper-Limbs Function in Idiopathic Normal Pressure Hydrocephalus – The Pro Hydro Study Arianna Vignaroli
		11:45 - 11:50	Lumboperitoneal Shunt Is Comparable to Ventriculoperitoneal Shunt for the Treatment of Idiopathic Normal Pressure Hydrocephalus Yasuaki Inoue	11:45 - 11:50	Effects of a Ventriculoperitoneal Shunt on Hearing in Patients with Normal Pressure Hydrocephalus – Interim Results of a Prospective Cohort Study Emily Wang
		11:50 - 11:55	Predictive Accuracy of a Clinical Model for Pathogenic Gene Carriage in PUMCH Dementia Patients with a Positive Family History Jialu Bao	11:50 - 11:55	Clinical Outcomes of Lumboperitoneal Shunt Surgery for Normal Pressure Hydrocephalus: A 5-Year Single-Center Retrospective Study of Patients with at Least 1 Year of Follow-Up Ki-Su Park

		11:55 - 12:00	Lack of Correlation Between Functional Imaging and Brain Volumetry in Idiopathic Normal Pressure Hydrocephalus: A Multimodal Diagnostic Study Lubin Klotz	11:55 - 12:00	Geriatrics and normal pressure hydrocephalus: a science mapping review Liliana Mazza
		12:00 - 12:05	Treatment-responsive changes in positional cerebral compliance in patients with idiopathic Normal Pressure Hydrocephalus demonstrated by non-invasive monitoring Giana Fote	12:00 - 12:05	Desh Score Reliability in Chronic Hydrocephalus Cyrille Capel
		12:05 - 12:10	Spacing Shunt Valves In Series: A Novel Strategy to Mitigate Siphon-Induced Overdrainage Michael Le	12:05 - 12:10	Elevated CSF acceleration at the craniospinal junction suggests reduced spinal compliance in INPH: a phase-contrast MRI study Katharina Wolf
		12:10 - 12:15	MRI Evidence of Choroid Plexus Enlargement in Post-Hemorrhagic Pediatric Hydrocephalus Leandro Castaneyra Ruiz	12:10 - 12:15	The impact on the caregiver in the treatment in patients with normal pressure hydrocephalus Gianpaolo Petrella
		12:15 - 12:20	Determining the utility of baseline gait and cognitive assessments in the decision for trial of CSF drainage in suspected Normal Pressure Hydrocephalus Matthew Boissaud-Cooke	12:15 - 12:20	Creative Strategies in Managing Complex Cerebrospinal Fluid Dynamics: A Case Series on Multi-Valve Shunt Systems Fernando Hakim
		12:20 - 12:25	Utility of blood biomarkers in prediction of post-operative outcomes in patients with idiopathic normal pressure hydrocephalus Abdelrahman Hamouda	12:20 - 12:25	Sensitivity of Physiotherapy-Based Clinical Tests in Detecting Gait and Balance Performance Following a 50 mL CSF Tap Test in Idiopathic Normal Pressure Hydrocephalus Kardelen Akar
		12:25 - 12:30	Evaluating the effect of the Tap Test on cognitive test scores in suspected idiopathic NPH Matthew Boissaud-Cooke	12:25 - 12:30	Evaluating outcome of shunt insertion in idiopathic Normal Pressure Hydrocephalus (INPH) patients within a dedicated NPH clinic Afsana Afrin Nisa
		12:30 - 12:35	Quantifying changes in measures of gait following Tap Test to validate clinical decision making for shunt surgery in suspected idiopathic Normal Pressure Hydrocephalus Matthew Boissaud-Cooke	12:30 - 12:35	Hydrocephalus Following Microvascular Decompression for Trigeminal Neuralgia Ahmed Aly
12:35 - 13:40	Industry Sponsored Lunch Seminar				
13:40 - 15:30	Session 29: Adult Hydrocephalus	13:40 - 15:30	Session 30: Oral Flash Presentations of ePosters	13:40 - 15:30	Session 31: Oral Flash Presentations of ePosters
13:40 - 13:50	Differential improvement in patient-reported outcomes measurement information system (PROMIS) domains after ventriculoperitoneal shunting (VPS) for idiopathic normal pressure hydrocephalus (INPH) Rahul Kumar	13:40 - 13:45	Real-time Phase Contrast MRI of CSF flow in patients with hydrocephalus. Heart or lung! Which is the driver? Olivier Baledent	13:40 - 13:45	Atypical manifestations of idiopathic Normal Pressure Hydrocephalus Gianpaolo Petrella
13:50 - 14:00	Is Shunting Worthwhile for Bedridden Patients with Normal Pressure Hydrocephalus ? Romain Manet	13:45 - 13:50	Mapping Clinical Measures of CSF Responsiveness vs. Non-Responsiveness in Complex Normal Pressure Hydrocephalus using the Strategy of the Periodic Table of DTI Elements Nicole Keong	13:45 - 13:50	Phase-contrast MRI Cerebrospinal Fluid Flow Parameters as Predictive Markers of ETV Efficacy in Idiopathic Normal Pressure Hydrocephalus: prospective observation study. Karel Pistek
14:00 - 14:10	Development of a Non-invasive Multimodal System for NPH Monitoring Through Speech, Gaze, Gait, and Hearing Parameters Jiho Lee	13:50 - 13:55	Clinical Relevance of DESH Subtypes in Normal Pressure Hydrocephalus (Hakim's Syndrome): Implications for Therapeutic Outcomes Fernando Hakim	13:50 - 13:55	The impact of Alzheimer's and vascular dementia on shunt outcomes in idiopathic Normal Pressure Hydrocephalus, a systematic review of 1.394 patients Kim Wouters
14:10 - 14:20	Cerebral pseudoatrophy in Normal Pressure Hydrocephalus (Hakim's syndrome): Clinical and Volumetric Changes Following Shunting Fernando Hakim	13:55 - 14:00	Association between Cerebral microbleeds and idiopathic normal pressure hydrocephalus Chun Yan Liu	13:55 - 14:00	Long-term body weight changes in the patients with normal pressure hydrocephalus received ventriculoatrial shunt Kiyoshi Takagi
14:20 - 14:30	Targeted CSF Metabolomics Suggests Potential Diagnostic Biomarkers for Idiopathic Normal Pressure Hydrocephalus Ulrika Hofling	14:00 - 14:05	Quantification of the contribution of metabolism-derived water to cerebrospinal fluid in humans and rats Cecilie Hvass	14:00 - 14:05	Awareness of Normal Pressure Hydrocephalus in Healthcare Personnel Gianpaolo Petrella
14:30 - 14:40	CSF biomarkers are related to symptomatology and outcome in idiopathic normal pressure hydrocephalus – the Gothenburg POINT-CSF study Mats Tullberg	14:05 - 14:10	Mapping human glymphatic flow with 7T MRI: a safer alternative to intrathecal imaging Danielle van Westen	14:05 - 14:10	Simultaneous Clinical Assessment of Siblings with Familial Normal Pressure Hydrocephalus (Hakim's Syndrome) Fernando Hakim
14:40 - 14:50	AK9 Mutations and Normal Pressure Hydrocephalus: Validating Genetic Evidence from a Case-Control Study Yoav D. Piura	14:10 - 14:15	Is Sagittal T2 Flow Void MRI in Diagnosing Third Ventriculostomy reliable? Arianna Vignaroli	14:10 - 14:15	Integration of Biomarker Studies and Alpha-Synuclein Skin Biopsy in the Evaluation of Patients for Normal Pressure Hydrocephalus Tyrone De Spenza
14:50 - 15:00	Transcranial Doppler during CSF infusion test Afroditi Lalou	14:15 - 14:20	Ventriculomegaly after vestibular schwannoma treatment : assessing cerebral hydrodynamics to guide hydrocephalus management Vincent Grandjean	14:15 - 14:20	From Cure to Control: Redefining Success in Normal Pressure Hydrocephalus Management Ahmed Toma

15:00 - 15:10	Variability of Cerebral Venous Drainage in Patients with Chronic Hydrocephalus: A Phase-Contrast MRI Study Heimiri Monnier	14:20 - 14:25	Glioblastoma and ventriculomegaly: hydrodynamic disturbances as emerging biomarkers for hydrocephalus diagnosis and management Vincent Grandjean	14:20 - 14:25	Diagnosis, Patterns Of Surgical Treatment Modalities And Their Short-Term Outcomes Among Children With Hydrocephalus or Hydranencephaly In Western Uganda Franck Sikakulya
15:10 - 15:20	Beyond Idiopathic: Secondary Normal Pressure Hydrocephalus (sNPH) – Etiological Patterns and Surgical Outcomes Fernando Hakim	14:25 - 14:30	Environmental impact of shunt surgery: a green work of the French neurosurgery scientific committee on eco-responsibility Tuan Le Van	14:25 - 14:30	Maternal-Child Characteristics at Birth and Congenital Hydrocephalus: A Population-Based Case-Control Study Kim Wouters
15:20 - 15:30	Speed Matters: Maximal 10m Walking Test is superior to Normal Pace in Predicting Gait Recovery following Ventriculoperitoneal Shunt Insertion in Normal Pressure Hydrocephalus Christoph Wiest	14:30 - 14:35	Evaluating baseline cognitive impairment and impact of treatment in idiopathic normal pressure hydrocephalus (iNPH) using a standardised assessment battery and composite score Lisa Healy	14:30 - 14:35	Shunt Performance in Neonatal Post-haemorrhagic Hydrocephalus: A Systematic Review of Cerebrospinal Fluid Biochemistry and Flow Dynamics Ines Da Silva Correia
		14:35 - 14:40	Functional Response to Large Volume Lumbar Puncture Predicts Shunt Surgery and Perceived Benefit in Suspected Normal Pressure Hydrocephalus Mark Luciano	14:35 - 14:40	Molecular genetics as a tool for personalised treatment of hydrocephalus Tina Noergaard Munch
		14:40 - 14:45	Brain Compliance in Normal Pressure Hydrocephalus and Post-Traumatic Hydrocephalus: Use of Novel Radiographic and Non-invasive Intracranial Waveform Methodologies Jeff Chen	14:40 - 14:45	Head Circumference in Hydrocephalic Children: Differential Pressure Valve versus Anti Siphon Devices Stefanie Kaestner
		14:45 - 14:50	To shunt or not to shunt : Idiopathic normal pressure hydrocephalus and physical frailty Dounia Rouabhia	14:45 - 14:50	Ventriculo-pyeloureteral (VPU) shunt combined with an Allium stent for complicated pediatric hydrocephalus Mickey Gideon
		14:50 - 14:55	MRI-Based Characterization of Torcular Configurations in Chronic Hydrocephalus Patients and Healthy Controls Heimiri Monnier	14:50 - 14:55	Endoscopic Third Ventriculostomy in Pediatric Hydrocephalus: Complication Management Moshiur Rahman
		14:55 - 15:00	Association of Pre-Shunt MRI Metrics with Gait Outcomes after Shunt in Idiopathic Normal Pressure Hydrocephalus Rahul Kumar	14:55 - 15:00	Implementation of CSF Flow MRI in the Management of Pediatric Hydrocephalus in Ivory Coast Vakaramoko Mohamed Kone
		15:00 - 15:05	Diagnostic Performance Of The Main Diagnostic Tools In Chronic Hydrocephalus Cyrille Capel	15:00 - 15:05	Neural Tube Defects, Hydrocephalus, and Associated Central Nervous System Malformations: A Nationwide Ecological Study in Latin America Fernando Hakim
		15:05 - 15:10	No Predictive Value of Aqueduct CSF Flow Dynamics for Shunting Efficacy in Idiopathic Normal Pressure Hydrocephalus Afroditi Lalou	15:05 - 15:10	Shunt Revision and Long-Term Durability in Hydrocephalus: Insights from 589 Patients Niclas Lynge Eriksen
		15:10 - 15:15	CSF lysophospholipids as potential biomarkers for hydrocephalus Teruhiko Yoshida	15:10 - 15:15	Efficacy and outcome of shunt surgery for secondary hydrocephalus Junji Wei
		15:15 - 15:20	LP shunt in patients with iNPH : Surgical technique Naoyuki Samejima	15:15 - 15:20	Endoscopic Third Ventriculostomy vs Ventriculoperitoneal Shunt for iNPH: Effects on Neuropsychological and Motor Function—ENVENTOR-iNPH: Study Protocol Francesca Graziano
		15:20 - 15:25	Surgical Effects in Patients with Normal-Pressure Hydrocephalus Based on CT Perfusion Imaging Hao Xu	15:20 - 15:25	Development of a new gait rating tool for patients with idiopathic normal pressure hydrocephalus Rick Mills
		15:25 - 15:30	Pericatheter Cysts as a Postoperative Complication of VP and VA Shunt Procedures Koichi Miyazaki	15:25 - 15:30	Non-Invasive ICP Waveform Analysis in Hydrocephalus: Comparing Asymptomatic Patients and Those with Shunt Dysfunction Raphael Bertani
15:30 - 16:30	Closing of the Congress				
15:35 - 15:45	Highlights from the Hydrocephalus World Congress John Pickard				
15:45 - 15:55	Young Investigators Awards - Winners Announcement Sevil Yasar				
15:55 - 16:05	Closing Address by the Hydrocephalus 2025 World Congress President Eric Schmidt				
16:05 - 16:15	Closing Address by the Hydrocephalus Society President Mats Tullberg				
16:15 - 16:25	Hydrocephalus Society Presidency Handover Mats Tullberg, Giorgio Palandri				
16:25 - 16:30	Hydrocephalus 2026 World Congress Sao Paulo Welcome Fernando Pinto				