



Hydrocephalus2021 Virtual | 10-13 September 2021

The Thirteenth Meeting of the Hydrocephalus Society



Program Overview

Program Overview

Friday, 10 September 2021 CEST 15:00 - 21:20

Main Hall			Parallel Hall	
15:00 - 16:00	Opening of the Congress & Hakim Lecture			
16:00 - 16:10	Break			
16:10 - 17:20	Young Investigators Awards Oral Presentations			
17:20 - 17:50	Industry Sponsored Seminar			
17:50 - 19:00	Experimental Hydrocephalus Invited Lecture & Oral Presentations	17:50 - 19:00	Technical Advances in Treatment and Diagnostics Oral Presentations	
19:00 - 19:10	Break			
19:10 - 20:10	Hydrocephalus Society S & EANS Joint Session - Chiari Round Table	19:30 - 20:10	Technical Advances in Treatment and Diagnostics Oral Presentations	
20:10 - 20:20	Break			
20:20 - 21:20	Adult Hydrocephalus Oral Presentations	20:20 - 21:20	Adult Hydrocephalus Oral Presentations	

Saturday, 11 September 2021 CEST 06:00 - 12:10

	Main Hall	Parallel Hall
06:00 - 07:00	Neuroradiology - Invited Lecture & Young Investigators Awards Oral Presentations	
07:00 - 07:10	Break	
07:10 - 08:10	Adult Hydrocephalus - Invited Lecture & Young Investigators Awards Oral Presentations	
08:10 - 08:20	Break	

Program Overview

08:20 - 09:20	Intracranial Pressure Invited Lectures & Oral Presentations	08:40 - 09:20	Adult Hydrocephalus Oral Presentations
09:20 - 09:50	Industry Sponsored Seminar		
09:50 - 11:00	Young Scientists Session	10:10 - 11:00	Adult Hydrocephalus Oral Presentations
11:00 - 11:10	Break		
11:10 - 12:10	Intracranial Pressure Oral Presentations	11:10 - 12:20	Adult Hydrocephalus Oral Presentations

Sunday, 12 September 2021 CEST 15:00 - 20:30

	Main Hall		Parallel Hall
15:00 - 15:30	Keynote Lecture - Adult Hydrocephalus - Genetics		
15:30 - 16:00	Hydrocephalus Society Annua	al General Mee	ting
16:00 - 17:00	Industry Sponsored Seminar		
17:00 - 18:00	Young Investigators Awards Oral Presentations		
18:00 - 18:10	Break		
18:10 - 19:10	Adult Hydrocephalus Invited Lecture & Oral Presentations	18:30 - 19:10	Adult Hydrocephalus Oral Presentations
19:10 - 19:20	Break		
19:20 - 20:30	CSF Dynamics Round Table	19:40 - 20:30	Meet the Expert

Monday, 13 September 2021 CSET 06:00 - 12:50

	Main Hall		Parallel Hall
06:00 07:00	Meet the Experts - Technical Advances in Treatment and Diagnostics Invited Lectures	06:20 07:00	Adult Hydrocephalus Oral Presentations
07:00 - 07:10	Break		

Program Overview

07:10 - 08:20	Invited Lecture & Hydrocephalus Society - Movement Disorders Society Joint Session	07:30 - 08:10	Adult Hydrocephalus Oral Presentations
08:20 - 08:40	Break 20'		
08:40 - 09:40	E-poster Session		
09:40 - 10:40	Congenital & Pediatric Hydrocephalus Invited Lecture & Oral Presentations		
10:40 - 10:50	Break		
10: 50 - 12:00	Adult Hydrocephalus & Neuroradiology Invited Lecture & Oral Presentations		
12:10 - 12:50	Marmarou Lecture - Closing of the Meeting - Young Investigators Awards Announcement		

Detailed Program

Friday, 10 September 2021 CEST 15:00 - 21:20

_	Main Hall
15:00 – 16:00	Session 1: Opening of the Congress & Hakim Lecture Chair: Mark Hamilton
15:00 - 15:15	President's Welcome Address Mark Hamilton
15:15 - 16:00	Hakim Lecture: Revisit of surgically treatable dementia Etsuro Mori & Masatsune Ishikawa
16:00 - 16:10	Break
16:10 - 17:20	Session 2: Young Investigators Awards Oral Presentations Chairs: Mats Tullberg, Giorgio Palandri
16:10 - 16:20	CHANGE IN CSF POCKET SIZE AFTER SHUNT PLACEMENT IN NORMAL PRESSURE HYDROCEPHALUS Emanuele Camerucci
16:20 - 16:30	A MULTIVARIATE ANALYSIS OF 82 CONSECUTIVE PATIENTS SHUNTED FOR IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS Amit Persad
16:30 - 16:40	ESTABLISHMENT OF AGE AND GENDER SPECIFIC NORMAL CEREBRAL VENTRICLE VOLUMES Harrison Snyder

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16:40 - 16:50	THE EFFECT OF A1/A2 REACTIVE ASTROCYTE EXPRESSION ON HYDROCEPHALUS SHUNT FAILURE Fatemeh Khodadaei
16:50 - 17:00	IN VIVO EVALUATION OF MAGNETIC MICROACTUATOR- EMBEDDED SELF- CLEARING CATHETER FOR INTRAVENTRICULAR HEMORRHAGE TREATMENT Angel Enriquez
17:00 - 17:10	VENTRICULAR ZONE RESPONSE TO BLOOD EXPOSURE AT VARIOUS TIME POINTS Mira Zaranek
17:10 - 17:20	INITIAL EXPERIENCES WITH MIETHKE M.BLUE® VALVE IN INPH PATIENTS Petr Skalicky
17:20- 17:50	Industry Sponsored Seminar

17:50 - 19:00	Session 3 - Experimental Hydrocephalus Invited Lecture & Oral Presentations Chairs: Carolyn Harris, Pat McAllister	17:50 - 19:00	Session 4 - Technical Advances in Treatment and Diagnostics Oral Presentations Chairs: Nana Mac Aulay, Eric Schmidt
17:50 - 18:10	CSF CIRCULATION - FROM EARTH TO THE MOON (AND BACK) Hans Ludwig		
18:10 - 18:20	IN VITRO INVESTIGATION OF THE INFLUENCE OF CERVICAL SPINAL CANAL STENOSIS ON CSF HYDRODYNAMICS Anne Benninghaus	18:10 - 18:20	MANUAL PUMPING OF A HYDROCEPHALUS SHUNT: NONSENSE OR A WORTHWHILE DIAGNOSTIC TOOL? TECHNICAL NOTE OF NON-INVASIVE SHUNT- TESTING WITH VIDEO DEMONSTRATIONS Uwe Kehler
18:20 - 18:30	NEUROINFLAMMATION, WHITE MATTER AND SUBVENTRICULAR ZONE ALTERATIONS IN JUVENILE PIGS WITH HYDROCEPHALUS Maria Garcia Bonilla	18:20 - 18:30	A NOVEL GUIDING TOOL FOR LUMBAR PUNCTURE WITH THE PARAMEDIAN APPROACH Chihiro Akiba
18:30 - 18:40	CHOROID PLEXUS-ON-A-CHIP: A MICROFLUIDIC IN VITRO MODEL TO STUDY THE EFFECT OF INFLAMMATION ON THE BLOOD-CEREBROSPINAL FLUID BARRIER Prashant Hariharan	18:30 - 18:40	THE FIRST CASE OF COMMUNICATING HYDROCEPHALUS TREATED WITH AN ENDOVASCULAR CEREBROSPINAL FLUID SHUNT Adel Malek

18:40 - 18:50	ADAM 10-DEPENDENT CLEAVAGE OF CEREBRAL CADHERIN JUNCTIONS, INDUCE VENTRICULAR ZONE DISRUPTION, VESSEL IMPAIRMENTS, AND HYDROCEPHALUS. A UNIFIED MECHANISM THAT MIMICS THE PATHOPHYSIOLOGY OF ACQUIRED HYDROCEPHALUS Leandro Castaneyra Ruiz	18:40 - 18:50	INTRACRANIAL CEREBRO- SPINAL FLUID (CSF) DIVERSION FROM 4TH VENTRICLE TO CISTERNA MAGNA. Pradnya Patkar
18:50 - 19:00	SQUIRE: A NOVEL MULTI- DYE IN VIVO SYSTEM FOR TESTING REAL-TIME NEUROINFLAMMATION DURING SHUNTING Jeffrey Horbatiuk	18:50 - 19:00	TREATMENT OF HYDROCEPHALUS WITH GIT 27 TO INHIBIT IL-1B ASTROCYTE ACTIVATION Mira Zaranek
19:00 - 19:10	Break		
19:10 - 20:10	Session 5 - Hydrocephalus Society S & EANS Joint Session - Chiari Round Table Chairs: Uwe Kehler, Mansoor Foroughi, Giorgio Palandri	19:30 - 20:00	Session 6 - Technical Advances in Treatment and Diagnostics Oral Presentations Chairs: Hans Ludwig, Anne Benninghaus
19:10 - 20:00	CHIARI 1 MALFORMATION IN ADULTS - KEY PRINCIPLES, TIPS AND CONTROVERSIES Mansoor Foroughi, Andrew Brodbelt, Marcus Stoodley	19:30 - 19:40	MACHINE LEARNING- BASED ENHANCEMENT OF THE LUMBAR INFUSION TEST OUTCOME OF SHUNT- RESPONSIVENESS Petr Skalicky
		19:40 - 19:50	VENTRICULOPERITONEAL SHUNT MALFUNCTION: A SIMPLE METHOD TO SOLVE A COMPLICATED PROBLEM Morgan Broggi

Detailed Program	 Friday 	10/9
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Detailed 1 10g	grain • Friday 10/9		
		19:50 - 20:00	REVERT - AN EU PROJECT TO ESTABLISH A CLINICAL NETWORK FOR TRANSFORMING THE CURRENT MANAGEMENT OF NPH IN THE UK AND FRANCE Peter Smielewski
20:00 - 20:10	DISCUSSION		1
20:10 - 20:20	Break		
20:20 - 21:20	Session 7 - Adult Hydrocephalus Oral Presentations Chairs: Hazel Jones, John Pickard	20:20 - 21:20	Session 8 - Adult Hydrocephalus Oral Presentations Chairs: Benjamin Elder, Richard Edwards
20:20 - 20:30	ASSESSING THE UTILITY OF NEWLY PROPOSED EVANS' INDEX CUTTOFFS FOR USE IN NORMAL PRESSURE HYDROCEPHALUS Alexander Davis	20:20 - 20:30	PREDICTION OF OUTCOME AFTER SHUNT SURGERY THROUGH CSF BIOMARKERS – THE POINT- CSF STUDY Hemin Sabir
20:30 - 20:40	INPH AND PARKINSONISM: A POSITIVE SHUNT RESPONSE WITH A NEGATIVE TAP TEST. Paolo Mantovani	20:30 - 20:40	EXPERIMENTAL CATHETER LAB; A RAPID PROTOTYPING AND IN- VITRO TESTING OF NOVEL VENTRICULAR CATHETERS AND CATHETER MODIFICATIONS Ahmad Faryami
20:40 - 20:50	EVALUATION OF THE EFFECT COMORBID PARKINSON SYNDROME ON NORMAL PRESSURE HYDROCEPHALUS ASSESSMENT Alexander Davis	20:40 - 20:50	UPPER LIMB MOTOR IMPAIRMENT IN IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS. A CROSS SECTIONAL DESCRIPTIVE STUDY Elena Magelli

20:50 - 21:00	IMPROVEMENTS OF PHYSICAL ACTIVITY, FUNCTIONAL STRENGTH AND ENDURANCE AND INCREASED SLEEP AT NIGHT AFTER SHUNT SURGERY IN IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS Johanna Ridja	20:50 - 21:00	NEUROENDOSCOPIC CHALLENGES IN VENTRICULAR TUMORS TREATMENT Piero Andrea Oppido
21:00 - 21:10	IMPACT OF THE COVID-19 PANDEMIC IN INPH SURGICAL PRACTICE. A CARE GIVER-BASED QUESTIONNAIRE SURVEY. Renzo Moreale	21:00 - 21:10	PANVENTRICULOMEGALY WITH A WIDE FORAMEN OF MAGENDIE AND A LARGE CISTERNA MAGNA (PAVM) – DEFINING THE PHENOTYPE Adam Nunn
21:10 - 21:20	THE VALUE OF PRE- SHUNT CSF BIOMARKERS IN IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS: DOES IT MATTER? Roberta Gambin	21:10 - 21:20	REAL-TIME NON-INVASIVE MONITORING OF CEREBROSPINAL FLUID SHUNT FLOW Matthew Potts

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Saturday, 11 September 2021 CEST 06:00 - 12:10

	Main Hall
06:00 07:00	Session 9 - Neuroradiology - Invited Lecture & Young Investigators Awards Oral Presentations Chairs: Mitsuhito Mase, Etsuro Mori
06:00 - 06:20	MRI IN INPH: WHAT REALLY MATTERS Shigeki Yamada
06:20 - 06:30	DNAH14 KNOCK-OUT MICE DEVELOPED ADULT-ONSET CHRONIC HYDROCEPHALUS Kaito Kawamura
06:30 - 06:40	WIRELESS BRAIN MICRO- IMPLANTS; ASSESSING THEIR LONG TERM SAFETY DURING CHRONIC IMPLANTATION Abdel Hameed Dabbour
06:40 - 06:50	VENTRICULAR VOLUMETRY FOR NON-INVASIVE EVALUATION OF SHUNT FUNCTION Simon Liden
06:50 - 07:00	PERIVENTRICULAR WHITE MATTER CHANGES ARE ASSOCIATED WITH LESS IMPROVEMENT AFTER SHUNT SURGERY IN INPH PATIENTS Carl Snobohm
07:00 - 07:10	Break

07:10 - 08:10 Session 10 - Adult Hydrocephalus - Invalente Lecture & Young Investigators Award Presentations Chairs: Uwe Kehler, Dresentations O7:10 - 07:30 CROSSTALK BETWE INPH AND GERIATE FROM DEMENTIA TO FRAILTY Sevil Yasar 07:30 - 07:40 USEFULNESS OF DE PREDICTING OUTCO OF EXTENDED LUMI DRAINAGE AND SHI INSERTION Adam Nunn 07:40 - 07:50 CSF BIOMARKERS REFLECTING CLINIC SYMPTOMS IN IDIO NORMAL PRESSURE HYDROCEPHALUS Heikki Lukkarinen 07:50 - 08:00 INFLUENCE OF THE NEUROSURGEON'S OPERATIVE EXPERIION ON THE COMPLICATE RATE AFTER SHUNT SURGERY FOR IDIO	vited
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NORMAL PRESSURE HYDROCEPHALUS Josefin Ohberg	S RIENCE ATION IT OPATHIC RE
08:00 - 08:10 HYDROCEPHALUS I PAEDIATRIC POSTE FOSSA TUMORS: TH ROLE OF PRE-OPER.	ERIOR HE
RISK FACTORS FOR DIVERSION FOLLOW TUMOUR RESECTIO	R CSF OWING
08:10 - 08:20 Break	

08:20 - 09:20	Pressure Invited Lectures & Oral Presentations Chairs: Mats Tullberg, Sevil Yasar	08:40 - 09:20	Session 12 - Adult Hydrocephalus Oral Presentations Chairs: Fernando Pinto, Laurence Watkins
08:20 - 08:35	SPONTANEOUS INTRACRANIAL HYPOTENSION: CONTROVERSIES IN TREATMENT Fransesco Signorelli		
08:35 - 08:50	BIOMARKERS OF RAISED INTRACRANIAL PRESSURE Linda D'Antonna	08:40 - 08:50	IMPROVEMENT IN LONG- TERM CARE BURDEN AFTER SURGICAL TREATMENT IN IDIOPATHIC NORMAL HYDROCEPHALUS Masatsune Ishikawa
08:50 - 09:00	ANALYSIS OF INTRACRANIAL PRESSURE PULSE WAVEFORMS DURING INFUSION TESTS Arkadiusz Ziolkowski	08:50 - 09:00	CSF DIVERSION IN SELECTED CHIARI MALFORMATION I PATIENTS IMPROVES THE CROWDING OF THE FORAMEN MAGNUM AND REDUCES SYRINX VOLUME Lucia Darie
09:00 - 09:10	CORRELATION OF 24 HOUR ICP MONITORING ANALYSIS AND ICP SLOW WAVES Eleanor Moncur	09:00 - 09:10	PARKINSONIANS SIGNS IN INPH PATIENTS: DESCRIPTIVE AND DYNAMIC CHANGES IN A PROSPECTIVE COHORT OF PATIENTS Francesco Tuniz
09:10 - 09:20	HAPPY-ICP: SINGLE- CENTRE COHORT OF 184 TELEMETRIC INTRACRANIAL PRESSURE MONITORS Ptolemy Banks	09:10 - 09:20	INCIDENCE OF IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS AMONG PATIENTS WITH BALANCE AND GAIT DISORDERS IN MEMORY CLINIC POPULATION George Razay
09:20 - 09:50	Industry Sponsored Seminar		

09:50 - 11:00	Session 13 - Young Scientists Session Chairs: Giorgio Palandri, Mark Hamilton	10:10 - 11:00	Session 14 - Adult Hydrocephalus Oral Presentations Chairs: Ahmed Toma, Madoka Nakajima
09:50 - 10:00	INTRODUCTION Giorgio Palandri		
10:00 - 10:10	DEVELOPMENT OF A CORE OUTCOME AND COMMON DATA ELEMENT SET FOR PHVD IN PRETERM INFANTS: THE DECODE- PHVD STUDY Roisin Mc NIcolas		
10:10 - 10:20	DEVELOPMENT OF AN ANIMAL MODEL TO STUDY HYDROCEPHALUS Ignacio Jusue-Torres	10:10 - 10:20	DIAGNOSTIC TEST ACCURACY OF EXTENDED LUMBAR DRAINAGE AND RECEIVER OPERATING CHARACTERISTIC (ROC) CURVE ANALYSIS OF THE OPTIMAL THRESHOLD FOR POSITIVITY Adam Nunn
10:20 - 10:30	ENHANCED HYDROCEPHALUS LITERATURE SEARCHES Norman Relkin	10:20 - 10:30	EVD MANAGEMENT WHAT'S RIGHT AND WHAT'S WRONG? Joanna Palasz
10:30 - 10:40	PUBLISHING IN HYDROCEPHALUS: TIPS FOR SUCCESS FROM THE EXPERTS Hazel Jones	10:30 - 10:40	FIRST 2-YEAR EXPERIENCE FROM A PILOT INTERDISCIPLINARY NORMAL PRESSURE HYDROCEPHALUS CLINIC Tobias Langheinrich
10:40 - 10:50	PUBLISHING IN HYDROCEPHALUS: TIPS FOR SUCCESS FROM THE EXPERTS Spyros Sgouros	10:40 - 10:50	QUANTIFIED ANALYSIS OF AB PLAQUES AND MICROGLIA FROM IN VIVO COHORT OF PATIENTS WITH IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS. Antti Luikku

10:50 - 11:00	Q & A	10:50 - 11:00	HIGHER LEVELS OF NEUROFILAMENT LIGHT CHAIN AND TOTAL TAU IN CSF ARE ASSOCIATED WITH NEGATIVE OUTCOME AFTER SHUNT SURGERY IN PATIENTS WITH NORMAL PRESSURE HYDROCEPHALUS Madelene Braun
11:00 - 11:10	Break		
11:10 - 12:10	Session 15 - Intracranial Pressure Oral Presentations Chairs: Madoka Nakajima, Masatsune Ishikawa	11:10 - 12:10	Session 16 - Adult Hydrocephalus Oral Presentations Chairs: Spyros Sgouros, Richard Edwards
11:10 - 11:20	TRANSORBITAL ULTRASOUND AND LUMBAR INFUSION TEST IN IDIOPATIC INTRACRANIAL HYPERTENSION Francesco Tuniz	11:10 - 11:20	DEVELOPING A MULTIDISCIPLINARY NORMAL PRESSURE HYDROCEPHALUS SERVICE: A QUALITY IMPROVEMENT INITIATIVE Samuel Jeffery
11:20 - 11:30	INTERCOMPARTMENTAL COMMUNICATION IN THE CEREBROSPINAL FLUID SYSTEM IN AN ACUTE OVINE IN-VIVO TRIAL: FIRST IMPRESSIONS Anthony Podgorsak	11:20 - 11:30	DUAL TASKING IN POSSIBLE INPH Otto Lilja-Lund
11:30 - 11:40	FIRST INSIGHTS OF POSTURE RELATED PRESSURE DYNAMICS IN AWAKE AND FREELY MOVING RATS Simone Schwander	11:30 - 11:40	CLINICAL PREDICTORS OF SHUNT RESPONSE IN THE DIAGNOSIS AND TREATMENT OF IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS: A SYSTEMATIC REVIEW AND META-ANALYSIS Mark Rea

11:40 - 11:50	INTRACRANIAL PRESSURE DYNAMICS WHEN MOVING FROM SITTING TO STANDING Matthew Bancroft	11:40 - 11:50	PREVALENCE OF FECAL INCONTINENCE IN PATIENTS WITH NORMAL PRESSURE HYDROCEPHALUS (NPH Uwe Kehler
11:50 - 12:00	ASSOCIATION OF PULSATILE INTRACRANIAL PRESSURE WITH TONSILLAR DESCENT AND SYRINGOMYELIA IN CHIARI MALFORMATION I Jonathan Funnel	11:50 - 12:00	PRO-HYDRO-GER: A GERIATRIC APPROACH TO DEFINE COMPLEXITY AND FRAILTY IN INPH PATIENTS. Liliana Mazza
12:00 - 12:10	PATIENT GENERATED CEREBROSPINAL FLUID RECIPROCATING PUMP FOR IN-VITRO HYDROCEPHALUS FLUID ANALYSIS AND LONG-TERM CELLULAR RESPONSE STUDIES Ahmad Faryami	12:00 - 12:10	MENINGOENCEPHALOCELE OF THE ANTERIOR SKULL BASE AND RELATIONSHIP WITH CSF RESORPTION PROBLEM Rik Demaerel

12:10 - 12:20 PILOT STUDY OF A MULTI-CENTER, RANDOMIZED CONTROLLED TRIAL OF SHUNT SURGERY IN INPH ORAL Jan Malm

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Sunday, 12 September 2021 CEST 15:00 - 20:30

	Main Hall	Parallel Hall
15:00 – 15:30	Session 16: Keynote Lecture - Adult Hydrocephalus - Genetics Chairs: Mark Hamilton, Giorgio Palandri	
15:00 - 15:30	INPH AND GENETICS: LESSONS LEARNED FROM THE LAB Mark D. Johnson	
15:30 - 16:00	Hydrocephalus Society Annua	al General Meeting
16:00 - 17:00	Industry Sponsored Seminar	
17:00 - 18:00	Session 17: Young Investigators Awards Oral Presentations Chairs: Richard Edwards, Harold Rekate	
17:00 - 17:10	VARIANTS IN SWI/SNF COMPLEX COMPONENT SMARCC1 LEAD TO DEVELOPMENTAL HYDROCEPHALUS AND OTHER SYNDROMIC FEATURES Amrita Signh	
17:10 - 17:20	INTRACRANIAL PRESSURE AND PERFUSION CHANGES WITH DIFFUSE OPTICAL MEASUREMENTS IN NEONATAL HYDROCEPHALUS Tracy Flanders	

Detailed Program • Sunday 12/9

17:20 - 17:30	BIOCHEMICAL PROFILE OF HUMAN INFANT CEREBROSPINAL FLUID IN INTRAVENTRICULAR HEMORRHAGE AND POST-HEMORRHAGIC HYDROCEPHALUS OF PREMATURITY Ayodamola Otun		
17:30 - 17:40	TRIM71 MUTATIONS CAUSE CONGENITAL HYDROCEPHALUS BY IMPAIRING PRENATAL NEURAL STEM CELL REGULATION Duy Phan		
17:40 - 17:50	A NOVEL MODEL OF ACQUIRED HYDROCEPHALUS FOR EVALUATION OF NEUROSURGICAL TREATMENTS Sarah Zwick		
17:50 - 18:00	THE FLOW LIMITING OPERATOR (FLO): A HIGH THROUGHPUT BIOREACTOR DESIGNED TO TEST FULL SIZED SHUNTS IN DYNAMIC ENVIROMENTS Jeffrey Horbatiuk		
18:00 - 18:10	Break		
18:10 - 19:10	Session 18 - Adult Hydrocephalus Invited Lecture & Oral Presentations Chairs: Mansoor Foroughi, Carolyn Harris	18:30 - 19:10	Session 19 - Adult Hydrocephalus Oral Presentations Chairs: Laurence Watkins, Ignacio Jusue-Torres
18:10 - 18:30	OUR BRAINS ARE FULL OF WATER – BUT HOW DOES IT ENTER? Nanna Mac Aulay		

Detailed Program • Sunday 12/9

18:30 - 18:40	CHANGE IN PITUITARY SIZE AS AN INDICATOR OF DISORDERED CSF DYNAMICS IN NORMAL PRESSURE HYDROCEPHALUS Emanuele Camerucci	18:30 - 18:40	OUTCOMES ASSOCIATED WITH A STANDARDIZED ASSESSMENT AND TREATMENT PROTOCOL FOR 298 PATIENTS WITH SUSPECTED IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS (INPH) Mark Hamilton
18:40 - 18:50	MATHEMATICALLY DESIGNED VENTRICULAR CATHETER, OPTIMIZED TO REDUCE ASTROCYTE ACTIVATION THROUGH SHEAR REDUCTION AND FLOW REDISTRIBUTION Ahmad Faryami	18:40 - 18:50	VERY RARE VENTRICULAR ARACHNOID CYSTS IN ADULTS MIMICKING NPH SYNDROME Pierro Andrea Oppido
18:50 - 19:00	INTRA-ABDOMINAL FIXATION OF LUMBOPERITONEAL SHUNT TO PREVENT PROXIMAL MIGRATION IN CASES OF IDIOPATHIC INTRACRANIAL HYPERTENSION: TECHNICAL NOTE Ahmed Rizk	18:50 - 19:00	IS THERE AN EXPIRY DATE FOR SHUNTS IN NPH? Aida Kafai Golahmadi
19:00 - 19:10	IS HYDROCEPHALUS SHUNTING FUNCTIONAL NEUROSURGERY? Eric Schmidt	19:00 - 19:10	CEREBROSPINAL FLUID PRODUCTION RATE IN VARIOUS PATHOLOGICAL CONDITIONS: A PRELIMINARY STUDY Kanza Tariq
19:10 - 19:20	Break		
19:20 - 20:30	Session 20 - CSF Dynamics Round Table Chairs:: Dominik Zieglgänsberger & Mats Tullberg	19:40 - 20:30	Session 21 - Meet the Expert Chair: Pat McAllister
19:20 - 19:35	CSF AND ICP: ITS PHYSIOLOGY, ITS PATHOLOGY Ahmed Toma	19:40 - 19:50	SHUNT TECHNOLOGY AND MULFUNCTION: WHAT SHOULD WE KNOW? Carolyn Harris

Detailed Program • Sunday 12/9

19:35 - 19:50	BRAIN PHYSICS IN DIAGNOSTICS OF HYDROCEPHALUS Marek Czosnyka	19:50 - 20:00	MEET THE EXPERT HARRIS
19:50 - 20:05	ICP DYNAMICS IN IDIOPATHIC INTRACRANIAL HYPERTENSION Zofia Czosnyka	20:00 - 20:10	MEET THE EXPERT HARRIS
20:05 - 20:30	Round table discussion and questions from the audience: Controversies in CSF Dynamics	20:10 - 20:20	MEET THE EXPERT HARRIS

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Monday, 13 September 2021 CEST 06:00 - 12:50

	Main Hall		Parallel Hall
06:00 07:00	Session 22 - Meet the Experts - Technical Advances in Treatment and Diagnostics Invited Lectures Chairs: Shigeki Yamada, Daniele Rigamonti		
06:00 - 06:20	IS CSF CIRCULATING? AN MRI EXPERIENCE Shinya Yamada		
06:20 - 07:00	LP SHUNTS: WHY AND HOW Madoka Nakajima		
07:00 - 07:10	Break		
07:10 - 07:25	Session 23 - Keynote Lecture Chairs: Mats Tullberg, Eric Schmidt		
07:10 - 07:25	CHRONIC OVERDRAINAGE IN SHUNTED PEDIATRIC HYDROCEPHALUS: HUMAN AND EXPERIMENTAL OBSERVATIONS. Bermans Iskandar		
07:25 - 08:20	Session 24 – Hydrocephalus Society & Movement Disorders Society Joint Session Chairs: Mats Tullberg, Eric Schmidt	07:30 - 08:30	Session 25 - Adult Hydrocephalus Oral Presentations Chairs: Francesco Signorelli, Marek Czosnyka
07:25 - 07:35	DOPAMINERGIC FUNCTION IN NPH. INTRODUCTION TO THE LANDSCAPE OF INPH AND MOVEMENT DISORDERS Eric Schmidt	07:30 - 07:40	FREQUENCY OF ABDOMINAL PAIN RELATIVE TO VARIOUS TYPES OF SHUNT TUBING Kanza Tariq

07:35 - 07:50	MOVEMENT DISORDERS Alfonso Fasano	07:40 - 07:50	COMPARISON OF FAMILIAL IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS PATIENTS AND THEIR FAMILY MEMBERS Joel Rasanen
07:50 - 08:10	CONVERGENT APPROACHES BETWEEN MOVEMENT DISORDER SOCIETY AND HYDROCEPHALUS SOCIETY Panel discussion	07:50 - 08:00	SUBDURAL COLLECTIONS AFTER VENTRICULAR- PERITONEAL SHUNT IMPLANTATION: COMPARISON BETWEEN TYPE OF VALVE Hugo Pereira
		08:00 - 08:10	LUMBAR AND VENTRICULAR CSF CONCENTRATIONS OF EXTRACELLULAR MATRIX PROTEINS BEFORE AND AFTER SHUNT SURGERY IN IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS Karolina Minta
08:10 - 08:20	CONCLUSION AND TAKE HOME MESSAGE Mats Tullberg	08:10 - 08:20	COLLABORATION WITH LOCAL PHYSICIANS IS ESSENTIAL TO RECRUITING UNDIAGNOSED IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS Hisayuki Murai
		08:20 - 08:30	
08:30 - 08:40	Break		

08:40 - 09:40	E-poster Session
	ASSESSMENT OF THERMAL TRANSCUTANEOUS FLOW PERFORMANCE CHARACTERISTICS IN PATIENTS WITH NORMAL PRESSURE HYDROCEPHALUS Naomi Abel
	CEREBROSPINAL FLUID BIOMARKERS IN IDIOPATHIC VS SECONDARY NORMAL PRESSURE HYDROCEPHALUS Andreas Eleftheriou
	VASCULAR STIFFNESS IN NORMAL PRESSURE HYDROCEPHALUS Joon Shim
	THE VARIATION OF OPTIC NERVE SHEATH DIAMETER (ONSD) MEASURED BY ULTRASOUND BEFORE AND AFTER THE SURGERY FOR HYDROCEPHALUS Mindaugas Urbonas
	OVERDRAINAGE IN AN ISOLATED FOURTH VENTRICLE Borja Sanz
	ADULT EXTERNAL HYDROCEPHALUS PRESENTING AS SUBDURAL HAEMATOMA FOLLOWING SINUS VENOUS THROMBOSIS Lucia Darie

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	INTRACRANIAL PRESSURE IS AFFECTED BY SEDATION IN THE FIRST 24 HOURS OF MONITORING Melissa De Fouveia
	HEMO AND CEREBROSPINAL FLUID DYNAMICS IN PREMATURE NEWBORN WITH INTRAVENTRICULAR HEMORRHAGE Baptiste De Waele
	REFERRED SHOULDER TIP PAIN FROM LUMBO-PERITONEAL SHUNT'S DISTAL CATHETER; UNCOMMON NEUROSURGICAL COMPLICATION Oyeleye Egunjobi
	A REVIEW OF THE CHANGING USE OF COGNITIVE ASSESSMENT AS PART OF THE NORMAL PRESSURE HYDROCEPHALUS (NPH) DIAGNOSTIC PATHWAY Cathryn Harries
	SAFETY OF TLP-MODIFIED SHUNT CATHETERS USED TO TREAT HYDROCEPHALUS Simran Hehar
09:40 - 10:40	Session 26 - Congenital & Pediatric Hydrocephalus Invited Lecture & Oral Presentations Chairs: Giorgio Palandri, Mats Tullberg

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09:40 - 10:00	PEDIATRIC
	HYDROCEPHALUS IN
	TANZANIA: BUILDING A
	HOUSE OF HOPE
	Theresa Harbauer
10:00 - 10:10	VERY LONG-TERM
	OUTCOMES IN PATIENTS
	WITH SHUNTED PEDIATRIC HYDROCEPHALUS:
	MORTALITY AND
	NEUROCOGNITIVE
	OUTCOME
	Matthias Gmeiner
10.10 10.20	
10:10 - 10:20	PREDICTING SHUNT SUCCESS AFTER PERINATAL
	POST-HAEMORRHAGIC
	HYDROCEPHALUS
	Saeed Kayhanian
40.00 40.00	
10:20 - 10:30	CHOROID PLEXUS TIGHT JUNCTION DISRUPTION IN
	AN EXPERIMENTAL MODEL
	OF INTRAVENTRICULAR
	HEMORRHAGE AND
	POST-HEMORRHAGIC
	HYDROCEPHALUS
	Ayodamola Otun
10:30 - 10:50	Break
10: 50 - 12:00	Session 27: Adult
	Hydrocephalus &
	Neuroradiology
	Invited Lecture & Oral
	Presentations Chairer Thoraca Harbauer
	Chairs: Theresa Harbauer, Karin Kockum
10:50 - 11:10	SHUNT INFECTION: HOW
	I PREVENT IT, HOW I
	MANAGE IT
	Richard Edwards

11:10 - 11:20	PREDICTION OF OUTCOME IN INPH THROUGH CLINICAL SIGNS AND SYMPTOMS (POINT-C): A PROSPECTIVE STUDY OF 143 PATIENTS Kerstin Andren
11:20 - 11:30	QUALITY OF LIFE AND DEPRESSIVE SYMPTOMS IN IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS: REPORTS FROM A POPULATION-BASED STUDY Katarina Laurell
11:30 - 11:40	LONGSTANDING OVERT VENTRICULOMEGALY IN ADULTS (LOVA) WITH PATENT AQUEDUCT: ETIOPATHOGENESIS AND SURGICAL OUTCOME OF DIFFERENT TREATMENT OPTIONS. Alessandro Carretta
11:40 - 11:50	SEVERE CHRONIC HYDROCEPHALUS: AN OVERLOOKED PATHOLOGY? Hugo Pereira
11:50 - 12:00	IMAGING FEATURES ASSOCIATED WITH IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS HAVE HIGH SPECIFICITY EVEN WHEN COMPARING WITH VASCULAR DEMENTIA AND ATYPICAL PARKINSONISM David Falmar

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12:00 - 12:10	CHANGES IN APPARENT DIFFUSION COEFFICIENT (ADC) DURING CARDIAC CYCLE OF THE BRAIN IN INPH BEFORE AND AFTER CSF DRAINAGE Mitsuhito Mase
12:10 - 12:50	Session 28: Marmarou Lecture - Closing of the Meeting - Young Investigators Awards Announcement Chair: Uwe Kehler
12:10 - 12:40	MARMAROU LECTURE: SOME CSF RELATED EXPERIMENTS OF NATURE - OLD AND NEW John Pickard
12:40 - 12:50	Closing of the Meeting - Young Investigators Awards Winners Announcement





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The Thirteenth Meeting of the Hydrocephalus Society

