

RESEARCH PROGRAM

Program is subject to change; for full conference schedule and session details, please visit hydrocephalusconference.org



Location: **JW Marriott Indianapolis** (attendee hotel)

THURSDAY, JULY 23, 2026

 Registration Open	9:00 AM - 8:00 PM
 Exhibit Hall Open	11:45 AM - 8:00 PM
 The Hydrocephalus Research Center: Scientific Meet and Greet with Lab Tours <i>(Limited Spots Available; Location: Indiana University, Indianapolis)</i>	11:00 AM - 2:00 PM
 Conference Welcome Speakers: Ramin Eskandari, MS, MD Diana Gray, MA Stephanie (Buffa) Vogt, MS Michael A. Williams, MD	3:30 PM - 4:30 PM
 FLOW Hydrocephalus Research Symposium	4:30 PM - 6:15 PM
 Welcome Reception Next Generation Poster Presentations Presenters: Anushka Acharya, Caroline (Jennie) Smith, Sarah Fink & Hannah Petersen, Gwendolyn Sebring, Jayne Crouthamel, Jessica Moser, Mary Grace Roe, Olivia Thomas	6:15 PM - 8:15 PM 6:30 PM - 7:15 PM
 Sponsor Talks	6:45 PM - 7:30 PM
 Engineering Synergy Circle Social Hour	7:30 PM - 8:30 PM



FLOW

Hydrocephalus Research Symposium
at HA CONNECT

THURSDAY, JULY 23, 2026

4:30-6:15 PM

Opening and Welcome

Monica Chau, PhD and Samantha Lanjewar, PhD
Hydrocephalus Association

4:30 PM - 4:38 PM

Genetics

Keynote: How Chromatin Remodelers Cause Congenital Hydrocephalus

Ryann Fame, PhD
Stanford University

4:38 PM - 4:51 PM

Keynote: A Developmental Genomic Atlas of the Human Cerebrospinal Fluid-Ventricular System

Kristopher Kahle, MD, PhD
Massachusetts General Hospital

4:51 PM - 5:04 PM

Engineering and Device Development

Keynote: Decoding Shunt Obstruction: The Role of the Microenvironment

Carolyn Harris, PhD
Wayne State University

5:04 PM - 5:17 PM

Simulating Hydrocephalus in Cadaveric Models: An MRI-Validated Approach to CSF Flow Dynamics Training

Kayla Gray, MS
St. Joseph's Hospital and Medical Center

5:17 PM - 5:25 PM

Current VP Shunt Valves Fail to Control Gravity- and Pulsation-Driven Overdrainage

Joyce Koueik, MD, MS
University of Wisconsin

5:25 PM - 5:33 PM

Home ICP Monitoring – A New Paradigm for Management of Patients with Hydrocephalus

Sarah-Jane Guild, PhD
University of Auckland

5:33 PM - 5:41 PM

Keynote: Quantitative, Non-Invasive Shunt Flow Measurement for Improved Management of Shunted Hydrocephalus

Peter Chiarelli, MD, PhD
Phoenix Children's Hospital

5:41 PM - 5:54 PM

Computational Analysis of Progressive Clogging in a Ventriculoperitoneal Shunt Under Pulsatile Flow

Alireza Asgharpour Masouleh, MS
Oregon State University

5:54 PM - 6:02 PM

Longitudinal MRI Characterization of Ventricular Expansion in a Porcine Model of IVH







Tarek Bacha, BS
University of California, Davis

6:02 PM - 6:10 PM






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FRIDAY, JULY 24, 2026

 Breakfast	7:30 AM - 9:00 AM
 Registration Open	8:00 AM - 5:30 PM
 Exhibit Hall Open	8:00 AM - 5:30 PM
 Sunrise Practice Yoga Britta Heinitz, RYT 200	8:00 AM - 8:30 AM
 FLOW Hydrocephalus Research Symposium	8:30 AM - 10:30 AM
 Coffee Break with Exhibitors	10:15 AM - 11:00 AM

SESSION 1 - Concurrent Talks

 Understanding the Brain: The Role of Neuropsychology in Hydrocephalus Speaker: Nickolas Dasher, PhD, ABPP	11:00 AM - 12:15 PM
 Beyond Shunt Failure: Hydrocephalus Complications from A to Z Speakers: Ramin Eskandari, MS, MD Mark Luciano, MD	11:00 AM - 12:15 PM
 Navigating Transition to Adult Care for Teens Speakers: Amanda Garzon, MA Brandon Rocque, MD	11:00 AM - 12:15 PM
 Normal Pressure Hydrocephalus: Looking Beyond the Triad of Symptoms Speaker: Abhay Moghekar, MBBS	11:00 AM - 12:15 PM
 You're Not Just a Patient; You're a Partner in Research Moderator: Lauren Jantzie, PhD Speakers: Kristopher Kahle, MD Samantha Lanjewar, PhD Ivelisse Lazzarini, EdD Esther Malka Liebowitz William E. Whitehead, MD, MPH	11:00 AM - 12:15 PM

 Luncheon: State of the Association Address and Inspirational Keynote Speakers: Diana Gray, MA Danny Bonaduce	12:15 PM - 2:15 PM
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Next Generation Poster Presentations

Presenters: Anushka Acharya, Caroline (Jennie) Smith, Sarah Fink & Hannah Petersen, Gwendolyn Sebring, Jayne Crouthamel, Jessica Moser, Mary Grace Roe, Olivia Thomas

2:00 PM - 2:30 PM





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SESSION 2 - Concurrent Talks

-  **Hands-on Learning Lab on Fluid Dynamics/Hydrocephalus 101** 2:45 PM - 3:45 PM
Speakers: Ramin Eskandari, MD
Carolyn Harris, PhD
James P. McAllister II, PhD
-  **Research In Action: Improving Patient Care** 2:45 PM - 3:45 PM
Moderator: Brandon Miller, MD, PhD, FAANS
Speakers: Peter Chiarelli, MD, DPhil
Mark G. Hamilton, MDCM, FRCSC
Jesse Skoch, MD, FAANS, FACS
Tessa van der Willigen, MPhil, MAPP
Bradley Weprin, MD, MHCM

-  **Coffee Break with Exhibitors** 3:45 PM - 4:15 PM

SESSION 3 - Concurrent Talks

-  **Real Talk: Parents and Adults Share Lessons from their Journey** 4:15 PM - 5:30 PM
Moderator: Lakisha Harris, CHES
Speakers: Angela Batterman
LaShonda Bullock
Kipp Coco
Kyle Gospodarek, MD, MEd
Dominique Robinson
Abigail Wood
-  **The Largest Clinical Trial for NPH: Hear the Long Awaited Results** 4:15 PM - 5:30 PM
Speakers: Naomi Abel, MD
Nickolas Dasher, PhD, ABPP
Mark G. Hamilton, MDCM, FRCSC
Mark Luciano, MD, PhD, FACS
Michael A. Williams, MD
-  **Pediatric Research Goes to the Next Level** 4:15 PM - 5:30 PM
Moderator: Tessa van der Willigen, MPhil, MAAP
Speaker: William E. Whitehead, MD, MPH

-  **Social Hour for Research Trainees** 6:00 PM - 7:00 PM



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8:30-10:30 AM

Opening and Welcome

Monica Chau, PhD and Samantha Lanjewar, PhD
Hydrocephalus Association

8:30 AM - 8:35 AM

Distinguished Lecture

Distinguished Lecture: Critical Overview of Preclinical Modeling for Therapeutic Development

James 'Pat' McAllister II, PhD
Virginia Commonwealth University

8:35 AM - 8:50 AM

Modeling

Keynote: Developmental Stage-Dependent Transcriptomic Responses to Neonatal Intraventricular Hemorrhage

Brandon Miller, MD, PhD, FAANS
Medical University of South Carolina

8:50 AM - 9:02 AM

Keynote: Feasibility of Short-Term Multimodal Assessment in a Neonatal Piglet Model of Intraventricular Hemorrhage

Alexandra Hochstetler, PhD
Boston Children's Hospital and Harvard Medical School

9:02 AM - 9:14 AM

Altered Functional Connectivity in a Mouse Model of Neonatal Germinal Matrix Hemorrhage-Intraventricular Hemorrhage

Shriya Koneru, BA
Washington University in St. Louis

9:14 AM - 9:22 AM

An In Vivo Method for Quantifying Complex Dysregulated CSF in a Rat Model of Posthemorrhagic Hydrocephalus of Prematurity Shows Tunable CSF Dynamics

Hawley Helmbrecht, PhD
Johns Hopkins University School of Medicine

9:22 AM - 9:30 AM

Mechanisms

Keynote: The Hydrocephalus Research Center, Indiana University, Indianapolis

Bonnie Blazer-Yost, PhD
Hydrocephalus Research Center, Indiana University, Indianapolis

9:30 AM - 9:42 AM

TRPV4-AMPK Signaling Axis as a Therapeutic Target for Hydrocephalus

Gowthami Mahendran, PhD
Indiana University, Indianapolis

9:42 AM - 9:48 AM

Inflammatory Modulation of TRPV4 in Human Choroid Plexus Epithelial Cells

Maryam Torabi, MS
Indiana University, Indianapolis

9:48 AM - 10:54 AM



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FRIDAY, JULY 24, 2026 (CONTINUED)

8:30-10:30 AM

Drug Treatment

Keynote: SCEMPI: Insights from Preclinical Studies to Clinical Trial

Lauren Jantzie, PhD

Johns Hopkins University School of Medicine

9:45 AM - 10:06 AM

Ventriculomegaly Disrupts Neurogenesis and Promotes Neuronal Hypertrophy and Inflammation in a *Tmem67*^{-/-} Rat Model of Congenital Hydrocephalus

David Audu, PhD

Indiana University, Indianapolis

10:06 AM - 10:14 AM

Serum Glucocorticoid-Induced Kinase 1 (SGK1) Inhibition as a Preclinical Therapy for Hydrocephalus

Fatemeh Bidgoli, BSc

Indiana University, Indianapolis

10:14 AM - 10:22 AM

Access to Care

An Integrated Model to Improve Access to Care and Quality of Life for Children with Hydrocephalus in Uganda (virtual)

Ronald Kibirige, PhD

Makerere University, Uganda

10:22 AM - 10:30 AM

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Location: **JW Marriott Indianapolis** (attendee hotel)

SATURDAY, JULY 25, 2026

 Registration Open	7:15 AM - 8:00 PM
 Exhibit Hall Open	7:30 AM - 4:30 PM
 Sunrise Practice Yoga Britta Heinitz, RYT 200	7:30 AM - 8:00 AM
 Breakfast	7:30 AM - 9:00 AM
 Our Research Impact Speaker: Monica Chau, PhD	8:30 AM - 9:15 AM
 Beyond the Horizon: Innovations and AI in Hydrocephalus Treatment Speakers: Daniel Donoho, MD Ramin Eskandari, MD	9:45 AM - 11:00 AM
 Coffee Break with Exhibitors	11:00 AM - 11:30 AM
 The Science of Shunt Obstruction Speaker: Carolyn Harris, PhD	11:30 AM - 12:30 PM
 Luncheon: The Next Generation in Hydrocephalus Research Honoring the Legacy of Dr. Robert Pudenz and Keynote Katie Lucas Speakers: Samantha Lanjewar, PhD J. Gordon McComb, MD Katie Lucas Presenters: Anushka Acharya, Caroline (Jennie) Smith, Sarah Fink & Hannah Petersen, Gwendolyn Sebring, Jayne Crouthamel, Jessica Moser, Mary Grace Roe, Olivia Thomas	1:00 PM - 2:30 PM
 FLOW Hydrocephalus Research Symposium - Poster Session 	3:00 PM - 4:30 PM
 Integration Panel - A Guide to Thriving and Closing Ceremonies Moderator: Michael A. Williams, MD Speakers: Andrew Allen Eric Cole Ivelisse Lazzarini, EdD Sarah McClellan Stephanie (Buffa) Vogt, MD	4:30 PM - 5:30 PM
 Dinner Dance and Talent Show	7:30 PM - 10:30 PM



SATURDAY, JULY 25, 2026

3:00-4:30 PM

Poster Presenters

Optic Nerve Head Edema Associated with Ventriculomegaly in Aged TMEM67+/- Rats

Hamid Aboutalebkhodaeian, PhD
Indiana University, Indianapolis

Dosing and Treatment Timing Refinement of AAV-Based Choroid Plexus Ablation

Leena Bandaras
University of Cincinnati

Living Beyond the Shunt: Occupational Therapy, Family Voices, and Quality of Life in Pediatric Hydrocephalus

Lauren Bange, BS
Notre Dame of Maryland University

Histopathological Evidence of Ependymal Disruption and Altered IBA1+ Macrophage Organization in a Neonatal Piglet Model of Intraventricular Hemorrhage

Waizo Chen, BS
Massachusetts General Hospital and Harvard Medical School

Cortical Iron Metabolism is Chronically Altered in Posthemorrhagic Hydrocephalus

Lauren Guyer, BA
Johns Hopkins University School of Medicine

Reducing Brain Inflammation After Brain Bleeds by Inhibiting CSF Immune Cells

Audrey Kruse, BS
Indiana University, Indianapolis

Cerebrospinal Fluid Obstruction and Ventriculomegaly in Experimental Hydrocephalus

Angela Lane
Washington University in St. Louis

Under Pressure: Investigating the Role of the Mechanosensitive Channels TRPV4 and Piezo1 in a Human Choroid Plexus Epithelial Cell Model

Verayna Newland, BS
Indiana University, Indianapolis

Characterizing a Genetic Adult Rat Model of Normal Pressure Hydrocephalus

Jane Obiako, MS
Indiana University, Indianapolis

Retinal and Optic Nerve Head Structural Changes in an Adult Post-Hemorrhagic Hydrocephalus Rat Model

Nasim Shafiee Nejad, BS
Indiana University, Indianapolis

Temporal and Regional Mitochondrial Dysfunction Following Neonatal Intraventricular Hemorrhage

Hemendra Vekaria, PhD
Medical University of South Carolina

Circadian Rhythm Disruptions in a Post-Hemorrhagic Hydrocephalus Animal Model

Amber Zack, BS
Indiana University, Indianapolis
