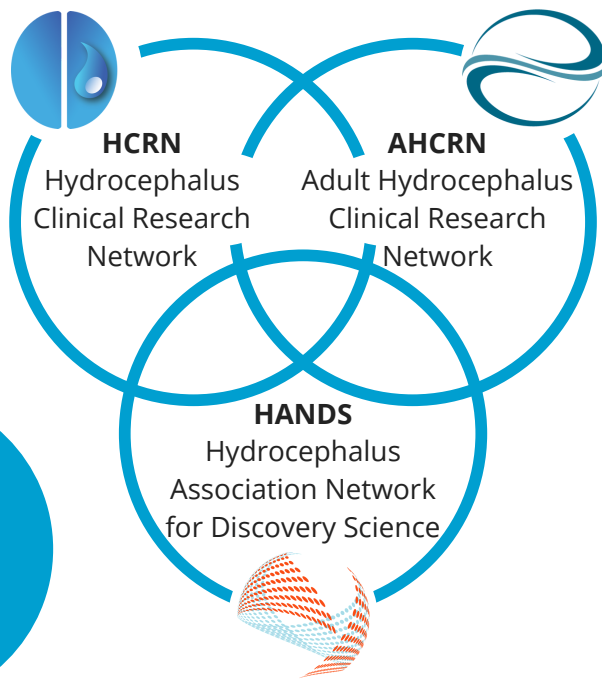


# HYDROCEPHALUS IN PENNSYLVANIA

HYDROCEPHALUS IS A CHRONIC NEUROLOGICAL CONDITION THAT HAS NO CURE. ANYONE AT ANY TIME CAN DEVELOP HYDROCEPHALUS, FROM INFANTS TO SENIORS. THE ONLY TREATMENT REQUIRES BRAIN SURGERY.



## TOGETHER TOWARDS A CURE



**PAGE 2**  
for a full listing of  
funded  
hydrocephalus  
research in  
Pennsylvania

**\$13.8M**  
HA  
INVESTMENT

**\$73M**  
ADDITIONAL  
GRANTS

## MAKING AN IMPACT

### The Big Picture

- 2 Clinical Research Networks
- 1 Basic & Translational Research Network
- 2 Biobanks
- 1 Hydrocephalus Patient-Powered Registry
- 36% Decrease in Shunt Infection Rates
- 11 Preclinical Drug Therapies in testing
- 1 New Patent for a Drug Target
- 1 FDA Investigational New Drug Application

## WALKS TO END HYDROCEPHALUS

Central PA, Sweet Arrow Lake County Park, Date TBD  
Philadelphia, Philadelphia Navy Yard, Oct 13, 2024  
Western PA, Schenley Plaza, Pittsburgh, Sept 14, 2024  
[hydroassoc.org/walk](http://hydroassoc.org/walk)  
[walk@hydroassoc.org](mailto:walk@hydroassoc.org)



## COMMUNITY SUPPORT GROUPS

- Central PA Community Network
- Eastern PA Community Network
- Pittsburgh Community Network
- State-wide Online Facebook Group
- One-on-one Peer Support Volunteers



# CONTRIBUTIONS TOWARD A CURE

## **CARNEGIE MELLON UNIVERSITY**

2020 NIH NIBIB **\$183,773**

Non-invasive Intracranial Pressure Sensing with Near-Infrared Light for Monitoring the Healthy and Diseased Brain. Principal Investigator: Kainerstorfer, Jana Maria

## **CHILDREN'S HOSP OF PHILADELPHIA**

2020 NIH NINDS **\$661,169**

Novel Ultrasound Indices of Intracranial Pressure and Brain Ischemia in Neonatal Hydrocephalus. Principal Investigator: Hwang, Misun

2021 NIH NINDS **\$385,000**

Diffuse Optics for Pediatric Hydrocephalus Management. Principal Investigator: Baker, Wesley

2021 NIH NINDS **\$633,996**

Novel Ultrasound Indices of Intracranial Pressure and Brain Ischemia in Neonatal Hydrocephalus. Principal Investigator: Hwang, Misun

## **FREEFLOW MEDICAL DEVICES, LLC**

2020 NIH NINDS **\$1,384,382**

Omniphobic cerebral shunt to eliminate clogging and dysfunction. Principal Investigators: Bandyopadhyay, Saibal, Harris, Carolyn A, Mcallister, James Patterson

2021 NIH NINDS **\$1,035,612**

Omniphobic cerebral shunt to eliminate clogging and dysfunction. Principal Investigators: Bandyopadhyay, Saibal, Harris, Carolyn A, Mcallister, James Patterson

## **PENNSYLVANIA STATE UNIV HERSHEY MED CENTER**

2020 NIH NICHD **\$32,183**

Leveraging Neural Imaging for Automated Neonatal Infection Diagnosis. Principal Investigator: Peterson, Mallory Rose

2021 NIH NICHD **\$32,779**

Leveraging Neural Imaging for Automated Neonatal Infection Diagnosis. Principal Investigator: Peterson, Mallory Rose

2021 FIC & NIH NICHD **\$565,200**

Neurocognitive outcomes and changes in brain and CSF volume after treatment of post-infectious hydrocephalus in Ugandan infants by shunting or ETV/CPC: a randomized prospective trial. Principal Investigators: Schiff, Steven J., Kulkarni, Abhaya V., & Warf, Benjamin Curtis

## **MEMBER**

[Hydrocephalus Clinical Research Network \(HCRN\)](#)

University of Pittsburgh, Children's Hospital of Pittsburgh of UPMC