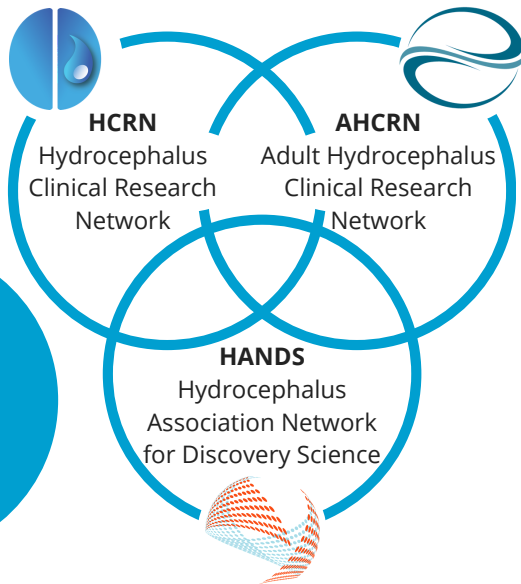


# HYDROCEPHALUS IN CALIFORNIA

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 California

**MEMBER** Hydrocephalus Clinical Research Network (HCRN)  
Children's Hospital of Los Angeles, University of Southern California

**\$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

Sacramento, Vernon St Town Sq, Roseville, Sept 14, 2024  
SoCal, Downtown Redondo Beach, Date TBD  
San Francisco, Little Marina Green, Date TBD  
Fresno, Woodward Regional Park, Date TBD  
Orange County, Huntington Beach, October 20, 2024  
[hydroassoc.org/walk](http://hydroassoc.org/walk)  
[walk@hydroassoc.org](mailto:walk@hydroassoc.org)



## COMMUNITY SUPPORT GROUPS

Los Angeles Community Network | State-wide Online Facebook Group  
One-on-one Peer Support Volunteers



# CONTRIBUTIONS TOWARD A CURE

## THE SCRIPPS RESEARCH INSTITUTE

2010 Hydrocephalus Association **\$110,000**  
Determine the role of the small lipid, lysophosphatidic acid or LPA, in fetal hydrocephalus. Principal Investigators: Yung, Yun & Chun, Jerold

2014-2018 NIH NINDS **\$2,556,511**  
Prenatal blood-borne lipids in post-hemorrhagic hydrocephalus. Principal Investigators: Yung, Yun & Chun, Jerold (follow on funding from HA grant)

2016 DOD CDMRP **\$2,330,238**  
New Hydrocephalus Therapies Through Interruption of Lipid Signaling and Inflammatory Pathways Using Novel Drug-Like Compounds. Principal Investigators: Yung, Yun & Chun, Jerold (follow on funding from HA grant)

## UNIVERSITY OF CALIFORNIA SAN DIEGO

2011 Hydrocephalus Association **\$110,000**  
Determine the role of the peptide hormone augurin in CSF fluid homeostasis. Principal Investigator: Podvin, Sonia

2021 NIH NICHD **\$1,417,141**  
Developmental Mechanisms of Human Meningomyelocele. Principal Investigator: Gleeson, Joseph

## LOMA LINDA UNIVERSITY

2017 Hydrocephalus Association **\$50,000**  
Understand how Germinal Matrix Hemorrhage (GMH) interferes with the CSF reabsorption process. Principal Investigators: Ding, Yan & Zhang, John

2017-2022 NIH NINDS **\$1,728,125**  
Cerebrospinal Fluid Dynamics in Posthemorrhagic Hydrocephalus in Neonates Principal Investigator: Tang, Jiping (follow on funding from HA grant)

2021 NIH NINDS \$395,000  
Harnessing blood clot clearance mechanisms after germinal matrix hemorrhage. Principal Investigators: Ding, Yan & Zhang, John

## SCINTILLON INSTITUTE

2018 Hydrocephalus Association \$300,000  
Test a new way to deliver drugs to the newborn brain. Principal Investigator: Yung, Yun

## SANFORD BURNHAM PREBYS MEDICAL DISCOVERY INSTITUTE

2018 Hydrocephalus Association **\$1,500**  
Altered DNA content in Hydrocephalus. Travel Award. Principal Investigator: McDonald, Whitney

## STANFORD UNIVERSITY

2021 NIH NIBIB **\$81,831**  
Flexible and Wireless Bioelectronics for Continuous Monitoring of Intracranial Pressure. Principal Investigator: Khalifehzadeh, Razieh

2022 Hydrocephalus Association Innovator Award  
Principal Investigator: Fame, Ryann

## UNIVERSITY OF CALIFORNIA BERKELEY

2021 NIH NINDS **\$504,197**  
Choroid Plexus Multi-Sensory Cilia Regulate Production of Cerebrospinal Fluid. Principal Investigator: He, Lin

## UNIVERSITY OF CALIFORNIA AT DAVIS

2021 NIH NIGMS **\$314,000**  
EFHC gene function in ciliary axomenes. Principal Investigator: Winey, Mark

## UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

2021 NIH NINDS **\$125,010**  
– Investigating Functional Ependymal Cell Heterogeneity in the Ventricular System. Principal Investigator: Redmond, Stephanie

2021 NIH NINDS **\$477,471**  
Structure and function of a novel population of regenerating ependymal cells. Principal Investigator: Alvarez-Buylla, Arturo

2021 NIH NINDS **\$666,598**  
Defective heme transport in the development of congenital hydrocephalus. Principal Investigator: Arnold, Thomas Darmody

## UNIVERSITY OF CALIFORNIA, DAVIS PACIFIC NEUROSCIENCE INSTITUTE KECK MEDICINE AT USC

2021-2026 NIH NINDS Grant **\$14,000,000**  
Placebo-Controlled Effectiveness of Idiopathic Normal Pressure Hydrocephalus Shunting

## SENSEER HEALTH INC.

2023 DOD CDMRP  
Develop internal device that monitors information about a shunt's intracranial pressure. Principle Investigator: Lee, Sascha