House Research Institute and Children’s Hospital Los Angeles Partner with University of Verona Hospital to Bring Auditory Brainstem Implants to U.S. Children

The Associated Press

LOS ANGELES--(BUSINESS WIRE)--Sep 7, 2012--House Research Institute and Children’s Hospital Los Angeles have announced an international consortium with the University of Verona in Italy to collaborate on teaching and research to advance the use of the Auditory Brainstem Implant (ABI) in children worldwide. The ABI is already used successfully in Italy with the pediatric population and the goal of the partnership is to bring the hearing implants to deaf children in the United States.

Mark Krieger, MD, Children's Hospital Los Angeles (Photo: Business Wire) House Research Institute and Children’s Hospital Los Angeles have submitted an application to the United States Federal Drug Administration (FDA) to start implanting the ABI in children in the U.S.

“We are excited about partnering with Children’s Hospital and the University of Verona to accelerate the progress of auditory brainstem implantation (ABI) in U.S. Children,” said Eric Wilkinson, M.D., co-principal investigator at House Research Institute and associate physician at House Clinic. “Children’s Hospital’s experience with pediatric intracranial procedures and University of Verona’s experience with ABI are unparalleled. Combined with House Research Institute’s surgical experience with ABIs and audiological experience in children, the team is ready to maximize ABI outcomes for pediatric patients.” Some children are born with no hearing nerve and cannot be helped by a hearing aid or a cochlear implant. The ABI bypasses the inner ear and hearing nerve to stimulate the brainstem directly allowing the brain to hear sound.

First developed at the House Research Institute by a team of researchers led by William House, M.D., and William Hitselberger, M.D., the ABI has been approved in adults since 2000. The ABI is the first successful prosthetic device that stimulates neurons in the human brainstem. More than 1000 adults have received the ABI worldwide with surgeons at the House Clinic leading the way. However, the ABI device is not currently approved for implanting in pediatric patients in the United States.

Vittorio Colletti, MD, at the University of Verona, Italy, was the first surgeon to implant children born without a hearing nerve with an ABI. A cochlear implant stimulates the auditory nerve to transmit sound. When a child does not have a functioning cochlea or an auditory nerve then an ABI is the only alternative for providing auditory information.

Currently, children in the United States who could benefit from an ABI must travel to outside the U.S. to have the surgery. Several of the children implanted in Italy work with the audiology team at House Research Institute when they return to the United States. The results have been dramatic in some children. Researchers are finding children with ABIs may have the potential to understand speech as well as be mainstreamed in school.

“At great personal and financial hardship, U.S. families have traveled to Europe in recent years so that their child may undergo this surgical procedure,” said Laurie Eisenberg, Ph.D., co-principal investigator at House Research Institute. “The time for conducting a formal ABI clinical trial in young deaf children in the U.S. has been long overdue.” In preparation for the application to the FDA, the surgical team from the House Clinic and Children’s Hospital went to The University of Verona Hospital earlier in 2012 to observe Colletti’s team implant ABIs in children. When the FDA approves the application, the surgical team will perform the ABI surgeries at Children’s Hospital, with the help and guidance of Dr. Colletti.

“Children’s Hospital Los Angeles is privileged and honored to be able to offer this innovative procedure to children in the United States," says pediatric neurosurgeon Mark Krieger, MD, chief of Medical Staff, Children's Hospital Los Angeles. Krieger also holds a position as chief of the hospital’s Division of Pediatric Neurosurgery. “The ABI has shown great success providing sound to deaf children and deaf adults and we will contribute to research on advancing the ABI and to the education of physicians on the surgical implantation techniques." House Research Institute principal physicians and researchers in this collaboration are: Eric Wilkinson, M.D.; Laurie Eisenberg, Ph.D.; Marc Schwartz, M.D.; and Robert Shannon, Ph.D. Physicians and researchers from Children’s Hospital include Mark Krieger, M.D., and Gordon McComb, M.D. Physicians and researchers from the University of Verona Hospital in Italy include Vittorio Colletti, M.D.; Marco Carner, M.D.; and Liliana Colletti, Ph.D.

About Children’s Hospital Los Angeles Children's Hospital Los Angeles has been named the best children’s hospital in California and among the top five in the nation for clinical excellence with its selection to the prestigious US News & World Report Honor Roll. Children’s Hospital is home to The Saban Research Institute, one of the largest and most productive pediatric research facilities in the United States, is one of America's premier teaching hospitals and has been affiliated with the Keck School of Medicine of the University of Southern California since 1932.

For more information, visit www.CHLA.org. Follow us on Twitter, Facebook, YouTube and LinkedIn, or visit our blog: www.WeAreChildrens.org.

About the House Research Institute The House Research Institute, formerly the House Ear Institute, is a non-profit 501(c)(3) organization dedicated to improving the quality of life for people with hearing loss and related disorders through scientific research, patient care, and the sharing of knowledge. Institute scientists research the auditory system, at the level of function, as well as at the cellular, molecular and genetic levels. We also explore the neurological interactions between the auditory system and brain, and study ways to improve auditory implants, diagnostics, clinical treatments and intervention methods. We share our knowledge

with the scientific and medical communities as well as the general public through our education and outreach programs. For more information about the House Research Institute, please call (800) 388-8612 or (213) 483-4431, E-mail info@hei.org or visit www.houseresearch.org.

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