

# HOUSE CALLS

A PUBLICATION ON RESEARCH, EDUCATION & GLOBAL HEARING HEALTH



THE HOUSE  
INSTITUTE  
FOUNDATION  
**AT 75 YEARS**



THE HOUSE INSTITUTE  
FOUNDATION

**The House Institute Foundation**  
**is celebrating 75 years** of our  
commitment to advancing  
hearing and neuroscience  
research, education, and global  
humanitarian efforts. Help us  
commemorate our diamond  
jubilee and invest in our future.  
**HIFLA.org/75**

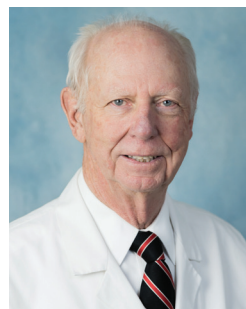


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## THE PAST 75 YEARS



When my father, Howard P. House, MD, finished his residency in 1937, he traveled to various centers of excellence in the US and Europe, where he spent eighteen months watching and learning from the leaders in the field of ear, nose, and throat. Howard even met Julius Lempert, MD, a physician in New York who is known today as the Father of Modern Otology. He returned to Los Angeles armed with the knowledge he gained from experts around the world and began to perform procedures to restore hearing to his patients.

Howard's dream to fund research and professional education came true in 1946 when two of his grateful patients got together and made a generous contribution to launch the Los Angeles Foundation of Otology, known today as the House Institute Foundation (HIF).

In 1970, the first successful implants were performed by William House, MD, Howard House's brother. Although he was met with resistance, he persisted, and thanks to him, cochlear implants have restored hearing to millions of people around the world. William did not stop there; he found a way to restore hearing to those who could not benefit from a cochlear implant by implanting electrodes directly into the brain.

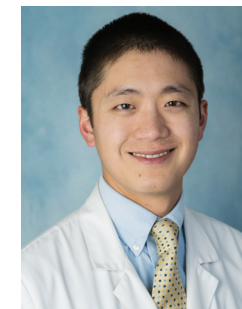
**Today, more than 30,000 physicians worldwide have visited and learned from the experts at the House Clinic.** Over the years, there have been many groundbreaking developments such as the use of the operating microscope, improvement of surgical procedures to restore hearing in patients with otosclerosis, the safe removal of tumors of the hearing and balance nerves, the cochlear implant, and the international facial nerve grading system (the House-Brackmann Scale—the most cited paper in ENT literature).

These are only a few examples of all the groundbreaking research that has been accomplished at the Institute, changing the world of hearing science into what we know it as today. Looking back over the past 75 years, HIF faculty and staff have made my father's dream into a reality. At the House Institute Foundation, we take hearing science and elevate it to an art.

In Solidarity,  
**John W. House, MD**



## THE NEXT 75 YEARS



It is a fascinating time in history to be asked what the future holds. The COVID-19 pandemic has altered the world of health care—from wearing masks and strengthening systemic control precautions to implementing universal preoperative testing and virtual meetings. It would be easier to make predictions if we had not been in such a different place less than a year ago, but the one thing that is sure to remain constant is the House Institute's dedication to excellence and commitment as leaders in the fields of otology and neurotology.

Each House physician is carefully chosen by the senior associates and groomed to become the finest otologic and neurotologic surgeons. Our faculty has the single most complete body of knowledge about ear and skull base disease and treatment internationally. **Our culture is one of inherited knowledge and experience.** There are constant discussions about unique cases, imaging studies, and pathology so that experience is passed throughout our organization to our trainees and our visiting physicians in an unbroken chain. Ours is also a culture of continued investigation. Our physicians are always excited to learn a new detail of our field, no matter how many years they have been practicing.

Beyond continuing House's legacy of learning, as the younger physicians of the faculty our mission is to innovate. We stay at the cutting edge of our field by learning new techniques and acquiring new devices to bring to patient care. We are also continuously involved in patient-centered research on improving treatment outcomes, predicting the course of disease, and improving our patients' experience. In the future, we plan to add more translational scientists into our organization, focusing on the areas of implantable devices (such as the cochlear implant and the auditory brainstem implant) and skull base tumors (for example, vestibular schwannomas and neurofibromatosis type 2). The partnership of our physicians and scientists will allow the House Institute to continue to bring new therapies to our patients from the bench to their bedside and propel us through the next 75 years.

In Solidarity,

**Mia E. Miller, MD**  
EDUCATION COMMITTEE CHAIR

**Kevin A. Peng, MD**  
RESEARCH COMMITTEE CHAIR





## Celebrating 75 Years of Changing Lives Like David's

BY JAVIA HEADLEY, MARKETING COMMUNICATIONS MANAGER

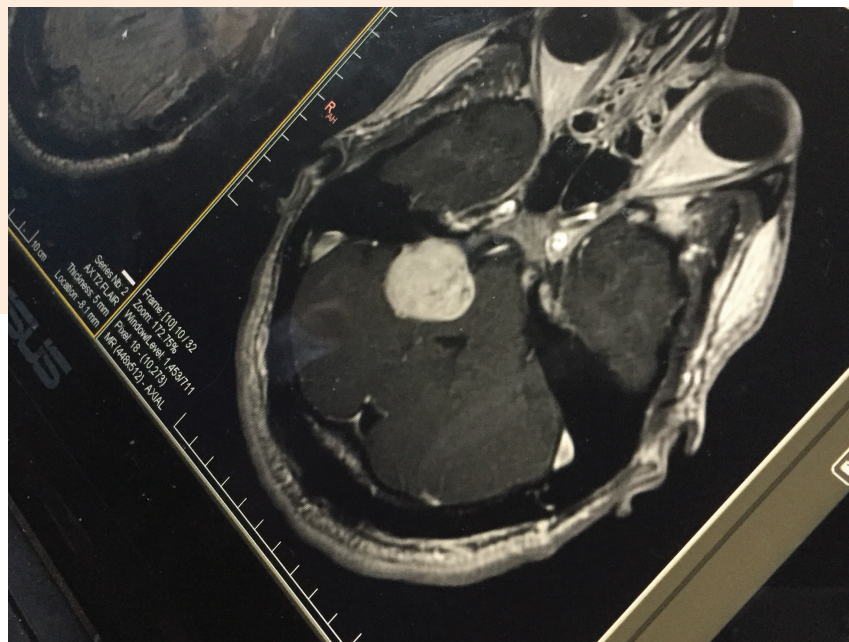
**In 1946 when Dr. Howard House first founded what is now the House Institute Foundation (HIF), he dreamed of helping patients like David.**

In the early days of the House Institute, there were not many options for those struggling with hearing-related disease. Dr. Howard House hoped an institution dedicated to hearing research and education for hearing professionals could change that.

The previous 75 years of House Institute's history is filled with numerous innovative advances that have not only changed modern hearing science but have also changed lives. One of those advances is the translabyrinthine approach. Dr. William House, brother of founder Howard House, discovered this technique in the late 1960s. This procedure allows doctors to remove most, if not all, of an acoustic nerve tumor, without risk of significant damage to the brain. Since its conception, HIF has been educating neurotologists and neurosurgeons worldwide in this technique. These physicians take what they learn and apply this expertise in their practices, caring for patients like David.

For most acoustic neuroma patients who pass through the doors of the House Ear Clinic, they can note the exact moment they realized they were losing their hearing. For David, it was a phone call. Managing a pizza shop as a favor for his friend who had gone out of town, David was spending his time tossing dough, boxing pizzas, and taking phone orders. Habitually, he answered each call with his right ear. At first, David thought the muffled sound was simply the





An MRI of the three-centimeter tumor on David's acoustic nerve.

result of an old telephone that needed replacing. Then, preoccupied with taking an order, he switched the phone from his right ear to his left. The sound was instantly better.

Months later, an MRI revealed the difference in hearing was caused by a three-centimeter tumor resting on his acoustic nerve. The tumor was so large that his physicians, Drs. William Slattery and Gregory Lekovic, recommended it be removed. The safest method of removal was the translabyrinthine approach pioneered by the House Institute. By the end of his surgery, David was tumor free. Throughout this experience, the House

staff and David's community rallied around him. "It felt wonderful to be a catalyst for the outpouring of love and support that came from the people in my life," David explained.

Although the tumor removal resulted in hearing loss on his right side, the translabyrinthine approach allowed David's doctors to save his other facial and balance nerves. One of David's biggest concerns upon being told he would need this surgery was whether he would be able to ride his motorcycle again. Inherited from his father upon his death, David's small Harley Sportster meant a lot to him. It connected him to his father's legacy.

One great legacy led to another.

Our 75 years of research and education around acoustic nerve tumors and hearing health allowed us to help David get back on his motorcycle. As Ray Bradbury once said, "It doesn't matter what you do. . .so long as you change something from the way it was before you touched it into something that's like you after you take your hands away."

The House Institute has done this through the translabyrinthine approach, and every time David works on his father's motorcycle, he can enjoy his father's legacy as well. 🌞

*One great legacy led to another.*




David immediately following surgery.



David on the bike his father passed down to him.

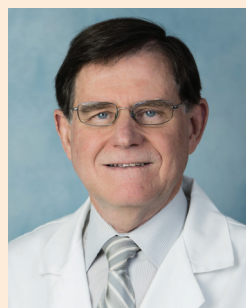


David and his physicians Gregory Lekovic, MD, and William Slattery, MD.

 To help us continue to educate the deaf and hard-of-hearing community, visit [HIFLA.org/75](https://HIFLA.org/75)



### The House Clinical Fellowship: Then



2021 will mark my fortieth year as an associate of the House Ear Clinic. My interest in problems with hearing began years before my House fellowship. My mother became severely hearing impaired in the first few years after her birth in 1922. The cause of her impairment was never known. Through the dedication of her parents, her therapist Mrs. Rogers, and my mother's own hard work, she became an oral deaf individual using speech reading and her voice rather than sign language to communicate.

While I was in medical school in the early 1970s, a Los Angeles Times article about William House's pioneering work with the cochlear implant fortified my interest in the ear and my desire to become an Otolaryngology resident. I was fortunate to have been accepted as a House fellow in July 1980 following my ENT residency at USC-LAC Medical Center. At that time, the House Ear Clinic and the House

# THE HOUSE CLINICAL FELLOWSHIP

BY WILLIAM M. LUXFORD, MD

*"... I learned not only about the science of evaluation and treating patients with hearing, balance, and facial nerve problems but also how to elevate hearing science to an art."*

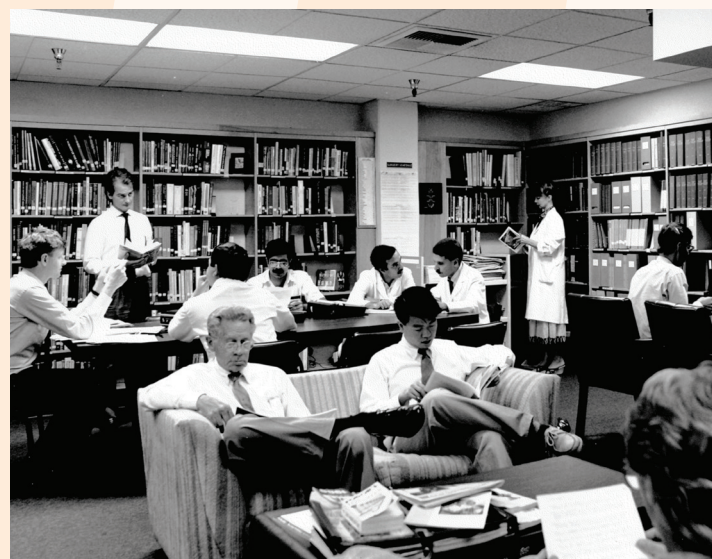
Institute Foundation were known as the Otologic Medical Group and the Ear Research Institute. Before text messaging, OMG had quite a different meaning.

My fellowship was only one year rather than the two years it is today. When I began my fellowship, the faculty included the original four members of the House group: Dr. Howard House, his half-brother Dr. William House, Dr. James Sheehy, and Dr. Fred Linthicum, Jr. Also on the faculty were Dr. Derald Brackmann, Dr. John House (Howard House's son), Dr. Antonio de la Cruz, Dr. Ralph Nelson, and Dr. Jerald Robinson.

I arrived at the right place at the right time. Neurotology was in its formative years, and I had the opportunity to learn from individuals who, through their clinical practice and research, managed to shape the field of hearing health. During my fellowship year, I learned not only about the science of evaluating and treating patients with hearing, balance, and facial nerve problems but also how to elevate hearing science to an art.



Physicians at the early House Institute practicing temporal bone drilling.



Physicians at the early House Institute library studying.



Physicians at the early House Institute practicing temporal bone drilling.





Current Fellow Hossein Mahboubi, MD, conferring with House physician M. Jennifer Derebery, MD.

# THE HOUSE CLINICAL FELLOWSHIP

BY HELENA WICHOVA, MD

## The House Clinical Fellowship: Now



Reflecting on my first four months as a House Clinical Fellow, I realize what a transformative time it has been. I still vividly remember the call I received from Dr. Slattery last October inviting me to join the program for a two-year fellowship. My career as a neurotologist was only beginning. Little did I know that our world was about to change with a pandemic. The year 2020 has been challenging for all of us with social isolation, changes to patient care, adjustments to wearing face masks, and the constant reminders of social distancing. These circumstances created minor roadblocks for me as I found myself not only virtually searching for a place to live but also virtually meeting many of the clinic staff.



Current fellows Helena Wichova, MD, and Laura Christopher, MD, reviewing documents in between seeing patients.



Current fellow Laura Christopher, MD, conferring with House physician William Slattery, MD.

One theme throughout this journey remains constant: the welcoming environment of the House staff. From the first day, the front desk staff greeted me with smiling faces. The medical assistants were always willing to lend a helping hand, and our world-renowned physicians dedicated time to teaching in the clinic and the operating room. Additionally, I am fortunate to have three co-fellows who are not only great lunch partners, but have created a home away from home, along with an environment to share research ideas and clinical pearls.

As a fellow, I work alongside all the faculty and learn the nuances of the treatments each has developed over the years. Early on, I realized how vast the patient population is at House. I have met patients several years out from large skull base tumor resections who share their recovery journeys as well as patients with new acoustic neuroma diagnoses discussing treatment options. My favorite office days are when Dr. Brackmann recalls his patients with incredible detail and

reviews their surgical cases and imaging. He always asks questions to probe the fellows to think critically while teaching us a valuable point.

*“My neurotology knowledge has already expanded exponentially, and I look forward to twenty more months of knowledge.”*

As we adjust to this new world, House has adopted wearing clear masks to accommodate our hard-of-hearing patients and preoperative COVID testing for safe surgery. Despite a pandemic, my neurotology knowledge has already expanded exponentially, and I look forward to twenty more months of knowledge. 🌱



# 75 YEARS OF RESEARCH AT HOUSE

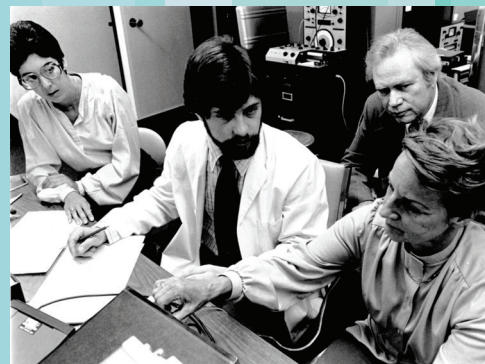


1947

Fenestration and double blue line technique for otosclerosis

1956

Standardization of noise-induced hearing loss



1961

Middle fossa removal of an acoustic neuroma

1961

Cochlear implant prototype

1969

Translabyrinthine removal of an acoustic neuroma



1972

First wearable cochlear implant

1981

Pediatric cochlear implant

1984

Standardization of grading system for facial nerve weakness/paralysis



1989

Auditory brainstem implant

1991

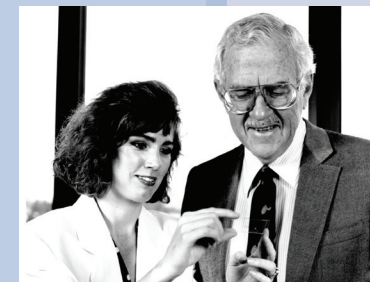
Discovered that circulating immune complexes (CIC) may be involved in pathogenesis of Meniere's Disease

1995

Hearing in Noise Test (HINT)

1997

Digital hearing aid



2000

Abear™, a hearing screening device for newborns and infants

2002

Development of neurofibromatosis cell lines used around the world in drug therapies



2013

First ethnic characterization of a large Meniere's Disease cohort from a large metropolitan area using molecular genetic data



# OUR CURRENT RESEARCH EFFORTS



Improving the accuracy of acoustic tumor tissue dissection and the preservation of essential structures



Assessing symptoms of neurofibromatosis type 2, including quality of life and hand function

Genetic and molecular analysis of neurofibromatosis type 2 tumors

Improving medical management of patients with vestibular migraine and persistent postural perceptual dizziness



Improving surgical techniques for treatment of superior semicircular canal dehiscence

Optimizing cochlear implant processing to improve acoustic-electric hearing in patients with single-sided deafness

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## HEARING HEALTH ASCENDS INTO GLOBAL AWARENESS

Shrill sounds blared from the boombox and ricocheted off the polished tile floors. A room of five-year-old girls stomped their flamenco heels, swung their long skirts, and clicked their castanuelas in time to the emotive, Andalusian folk songs. I loved to dance. What I liked considerably less were the earplugs my mom forced me to wear. She was a determined parent and I was

a compliant preschooler. I endured the prodding of fingers at their gray wax, the stream of questions I could guess at but not answer, and the uncomfortable staring. Wearing never-before-seen earplugs at the village flamenco class added reason for the little Spanish girls to scrutinize the strange, blonde-haired newcomer and did little for my attempt at assimilation. But today, I am grateful for my mother's insistence on safeguarding my young

ears. This was a world that lacked public awareness of the dangers of soaring decibels. Twenty-five years on, and that world is rapidly changing.

When people ask about my work life, and I speak of "global hearing health," I am met with expressions conveying confusion and curiosity. While "global health" has been adopted into vernacular and correlates to the

# Raise the Audibility!

BY ERIN O'DONNELL, ASSOCIATE DIRECTOR OF EDUCATION AND GLOBAL HEALTH



Erin O'Donnell, our Associate Director of Education and Global Health Programs. Today, she is grateful for her mother's insistence on safeguarding her young ears and carries a pair earplugs at the ready wherever she goes.

*We are committed to sharing hearing health information that empowers individuals to take responsibility for their hearing conservation.*

Sustainable Development Goal (SDG) promoting healthy lives and well-being for all, "global hearing health" is still an emergent term in most circles. However, with the World Health Organization's (WHO) historic resolution (WHA70.13) in 2017 prioritizing the prevention of deafness and hearing loss, global hearing health now finds itself in the ranks of such prominent public health initiatives as mental health awareness, maternal, child and newborn health, and HIV/AIDS prevention.

## THE HOUSE INSTITUTE IS POISED TO MAKE A DIFFERENCE

Global hearing health is synergistic with the House Institute's other mission areas of ear and hearing research and education for professionals and the public. The House Institute continues to forge long-term partnerships with sustainable programs in low to middle-income countries, sending resources and teams to support surgical and audiological efforts as well as to train local health care providers. Direct service from our

faculty and clinical fellows can only go so far. To scale our impact, we are developing a Global Otology Coordination Center. This online platform will help orchestrate worldwide humanitarian efforts in several ways. First, it will provide a comprehensive directory of overseas projects that meet strict sustainability criteria. Second, it will strengthen the network of active hearing care professionals by facilitating communication, sharing volunteer needs, and identifying opportunities for collaboration. It will also offer valuable insight into the successes and lessons learned of current efforts. Last, it will constitute a repository of data and observations that could prompt revelatory research into the underlying causes of diseases with unusually high prevalence in some geographic regions.

In conjunction with increased access to medical care, we are committed to sharing hearing health information that empowers individuals to take responsibility for their hearing conservation. Indeed, 60% of childhood hearing

loss is due to preventable causes. Additionally, 1.1 billion young people between the ages of 12 and 35 are at risk of hearing loss due to exposure to noise in recreational settings. Other causes of preventable hearing loss require regulation, such as mitigating occupational noise or reducing the presence of ototoxic substances in workplace settings. In both instances, effective public health campaigns that generate awareness about damaging noise levels are crucial. These include safer listening practices on personal audio devices and the use of appropriate ear protection for activities that may seem as innocuous as vacuuming, mowing the lawn, going to movie theaters, or playing the violin.

## INFLECTION POINT

The WHO's World Hearing Report will be released on March 3rd, 2021, World Hearing Day. This document will include evidence-based ear and hearing care recommendations for governments and civil society. The WHO estimates that lack of awareness around hearing loss coupled with the unmet need for medical intervention poses an overall



annual cost of 750 billion dollars, not to mention an immeasurable impact on the lives of those affected. It is estimated that by 2050 over 900 million people will have disabling hearing loss. But this does not have to be our collective story. As reforms to primary healthcare and education systems occur worldwide, it is incumbent on us and others in the field to share the framework presented in the World Hearing Report and to advocate for its strategic integration. Now is the time to ensure that unified messaging communicating the importance of hearing health and promoting best practices reaches the ears of decisionmakers across sectors, urging them to translate these findings into newly minted policy and curricula that address the growing epidemic of hearing loss.

When Dr. Howard P. House founded the House Institute Foundation (then called the Los Angeles Foundation of Otolaryngology) in 1946, his mission “so all may hear” may have seemed more aspirational than attainable. As we find ourselves on the brink of an international movement underpinned by a multi-faceted approach to improve hearing health, his vision—now our vision, is more possible than ever. 🌍

**LEARN MORE AT:**

[who.int/deafness/world-report-hearing/en](https://www.who.int/deafness/world-report-hearing/en)



Founder, Howard P. House, MD.



The World Hearing Report will be released on World Hearing Day 2021. Image by the World Health Organization.



Darlene Fragale (left) and daughter Lauri Witt.

When Darlene Fragale first started losing her hearing in the 1960s, there were not many options for otosclerosis patients like her to regain their sense of sound. Otosclerosis occurs when a middle ear bone grows abnormally, disrupting the path sound would travel. Darlene was in her thirties when she first started losing her hearing. Fifteen years later, her hearing loss would become profound. In an era where resources for the deaf seemed finite, Dr. William House, MD, stepped into her life and offered her another choice.

## THE LITTLE THINGS

### Darlene's 50 Year Journey with Hearing Loss

BY JAVIA HEADLEY, MARKETING COMMUNICATIONS MANAGER

It was 1979 when Darlene came into the House Ear Clinic for her first appointment with Dr. House. At that time, Dr. House had just started the clinical trial for the single-channel cochlear implant, the first device of its kind. Darlene recalls fondly the moment Dr. House told her of this new device that could help her regain her hearing. Unaware of the months of audiological and psychological testing ahead, she immediately asked, “Can we do the surgery next week?”

In November of 1979, Darlene became one of the first patients in the cochlear implant clinical trial. Six months

later, Dr. House offered her a job at the House Ear clinic as an x-ray technician. By accepting this opportunity, Darlene was uniquely positioned to not only mentor cochlear implant candidates but also to observe and experience how much the lives of the deaf and hard of hearing would change throughout her 32-year career with our institution.

At a time when watching TV required a decoder for captions and communicating via telephone typewriters was a long and arduous process, the cochlear implant came as a miracle to many individuals. Just being able to sit and carry on a conversation was a luxury that many thought they would never experience again.

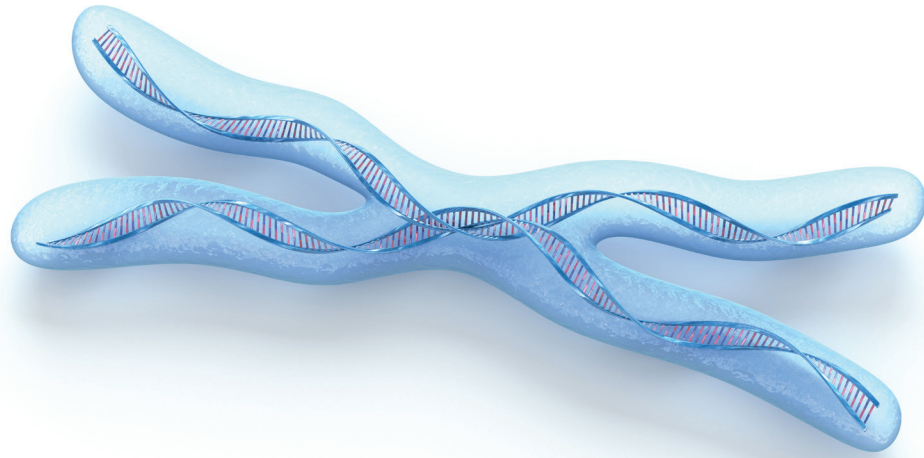
Today, Darlene's daughter and grandson share the same disease that first began affecting her hearing in the 60s, but technology has progressed substantially since then. Television channels all have closed captioning, and messaging apps offer a smoother way to communicate for those who cannot carry on phone conversations. Even cochlear implants have significantly advanced. In 1989, Darlene had her opposite ear implanted with the multichannel successor to Dr. House's first-generation implant. In 2010, her original ear was upgraded to match.

When asked for the most memorable moment in her 50-year journey with hearing loss, Darlene recalled November 1989. Just days before Thanksgiving, she met with House Institute audiologist, Dr. Dawna Mills, AuD, to ask if her new, multichannel cochlear implant could be activated early. Thanksgiving Day found her driving 300 miles to visit her daughter. She stopped at a gas station and a man standing about 15 feet away called out and asked, “Did you buy that car locally?” It was not until after she had responded affirmatively and driven away that Darlene realized she had been able to hear without lipreading for the first time in almost thirty years.

As a new generation of accessibility and technology for the deaf and hard of hearing is ushered in, Darlene wants new cochlear implant users to remember that attitude is everything; even the little things can bring you immense joy. “It's a lot easier to fry bacon when you can hear it!” Darlene joked. “Not many people think about that.” 🌍



# HEARING SCIENCE NEWS



## Sudden Hearing Loss May Be Linked to COVID-19

Cases of sudden hearing loss have been known to follow viral infections such as the flu, herpes, or cytomegalovirus. Now, a handful of cases have been reported associating hearing loss with COVID-19. Doctors in the UK recently released a case study of one COVID-19 patient who had been in the hospital on a ventilator for 30 days and developed sudden permanent hearing loss as a result. He tested negative for other potential causes, leading doctors to conclude that his hearing loss was COVID-19 related.

*Koumpa, S.F., Forde, C.T., & Manjay, J.G. (2020). Sudden irreversible hearing loss post COVID-19. BMJ Case Reports, 13(11). <https://doi.org/10.1136/bcr-2020-238419>*

## Using Sound & Electrical Stimulation to Treat Tinnitus

Researchers at the University of Minnesota used a noninvasive tinnitus treatment device that delivers sound to the ears and electrical stimulation pulses to the tip of the tongue in an exploratory study comprised of 326 patients living with chronic tinnitus. They found a clinically significant reduction in tinnitus severity for patients who used the device as instructed. Many patients also reported sustained benefits a year after treatment.

*Conlon, B., Langguth, B., Hamilton, C., Hughes, S., Meade, E., O'Connor, C., Schecklmann, M., Hall, D.A., Vanneste, S., Leong, S. L., Thavakumar, S., D'Arcy, S., & Lim, H. H. (2020). Bimodal neuromodulation combining sound and tongue stimulation reduces tinnitus symptoms in a large randomized clinical study. Science Translational Medicine, 12(564). <https://doi.org/10.1126/scitranslmed.abb2830>*

## Gene Discovery in Fruit Flies Could Lead to Treatments for Age-Related Hearing Loss

Scientists at the University College London discovered a set of genes responsible for maintaining healthy hearing in fruit flies. Researchers were able to manipulate these genes to prevent the flies from experiencing age-related hearing loss. As these genes are conserved in humans, this study's findings could help focus future clinical research on gene-therapeutic strategies.

*Keder, A., Tardieu, C., Malong, L., Fila, A., Kashkenbayeva, A., Newton, F., Georgiades, M., Gale, J.E., Lovett, M., Jarman, A.P., & Albert, J.T. (2020). Homeostatic maintenance and age-related functional decline in the Drosophila ear. Scientific Reports, 10. <https://doi.org/10.1038/s41598-020-64498-z>*

# IN-HOUSE TREATMENTS & INNOVATIONS



## Using MRI Technology to Outline Treatment Options

BY SARAH HODGE, MD AND MIA E. MILLER, MD

Part of our goal at House is to find ways to best inform our patients about the course of their care. Imaging studies can help us with these predictions. Utilizing MRI technology, vestibular schwannomas are not only diagnosed, but their characteristics can be studied to help outline treatment options. A specific MRI sequence called Fluid-Attenuated Inversion Recovery (FLAIR) highlights the high protein contents in fluids. A study performed in 2008 and published in the American Journal of Neuroradiology reported that these elevated protein levels have been found in the fluids of the cochlea in patients with vestibular schwannoma. In 2014, our very own Dr. Mia Miller published an article in Otology & Neurotology investigating the relationship between the FLAIR MRI signal inside the cochlea and the hearing level in patients with vestibular schwannoma. There have been several subsequent studies by other investigators. Our current study aims to find how immediate postoperative intracochlear FLAIR signal in patients who have undergone vestibular schwannoma resection may relate to hearing preservation. Routinely imaging patients on postoperative day one after surgery gives us a unique data set to study. The findings of this investigation could help us better counsel patients on their final hearing expectations earlier in their treatment.



## Meniere's Disease Drug Trial

BY M. JENNIFER DEREBERY, MD

Meniere's Disease is one of the House Institute Foundation's (HIF) primary areas of research. Its symptoms include episodic bouts of severe vertigo, unstable sensorineural hearing loss, ear fullness, and tinnitus. Although first described in 1861, the cause of Meniere's Disease is still unknown. There are many theories, including viral, allergic, metabolic, structural, and autoimmune etiologies. HIF has had several publications regarding both possible treatments and etiology.

Montelukast, a medication used to treat allergic rhinitis and asthma, has been shown to have a protective effect against the development of Meniere's Disease in allergically sensitized animals. Funding provided by HIF and Cures Within Reach ([cureswithinreach.org](http://cureswithinreach.org)) will be used to start a double-blinded, placebo-controlled research trial within the next few months involving treatment with montelukast. Allergy patients diagnosed with Meniere's Disease who are currently taking allergy immunotherapy (shots) will be eligible. HIF will be reaching out to patients with those diagnoses who may be interested in volunteering to participate in the trial. If you are diagnosed with Meniere's Disease, watch for a notification from HIF, and consider joining this study. And, whether or not you have Meniere's Disease, please consider donating to HIF to support our ongoing research on Meniere's Disease and other treatments of hearing loss. 🌱



# OUR YEAR IN NUMBERS

JULY 2019 - JUNE 2020

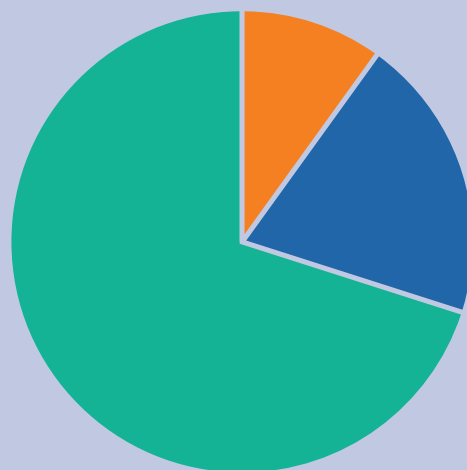
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Seventy cents out of every dollar we spend is devoted to advancing prevention and treatment for those affected by hearing loss through our mission of research, education and global hearing health.

10% FUNDRAISING

20% ADMINISTRATIVE

70% PROGRAM



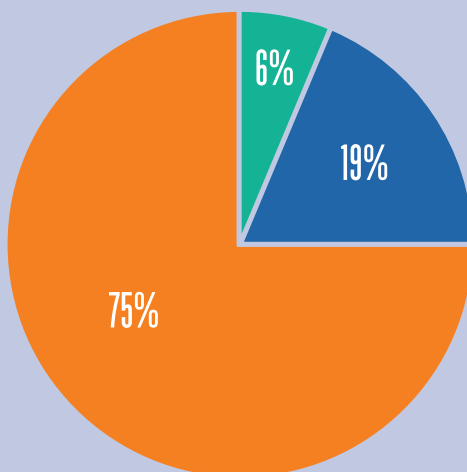
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 Helena Wichova, MD

**CONTRIBUTORS**

M. Jennifer Derebery, MD  
 Javia Headley  
 Shanel Hill

**DESIGNER**

Lynne Door

**PRINTING**

Marina Graphic Center

**CONTACT**

The House Institute Foundation  
 2100 W. 3rd Street, Suite 111  
 Los Angeles, CA 90057  
 Email: [hello@hei.org](mailto:hello@hei.org)  
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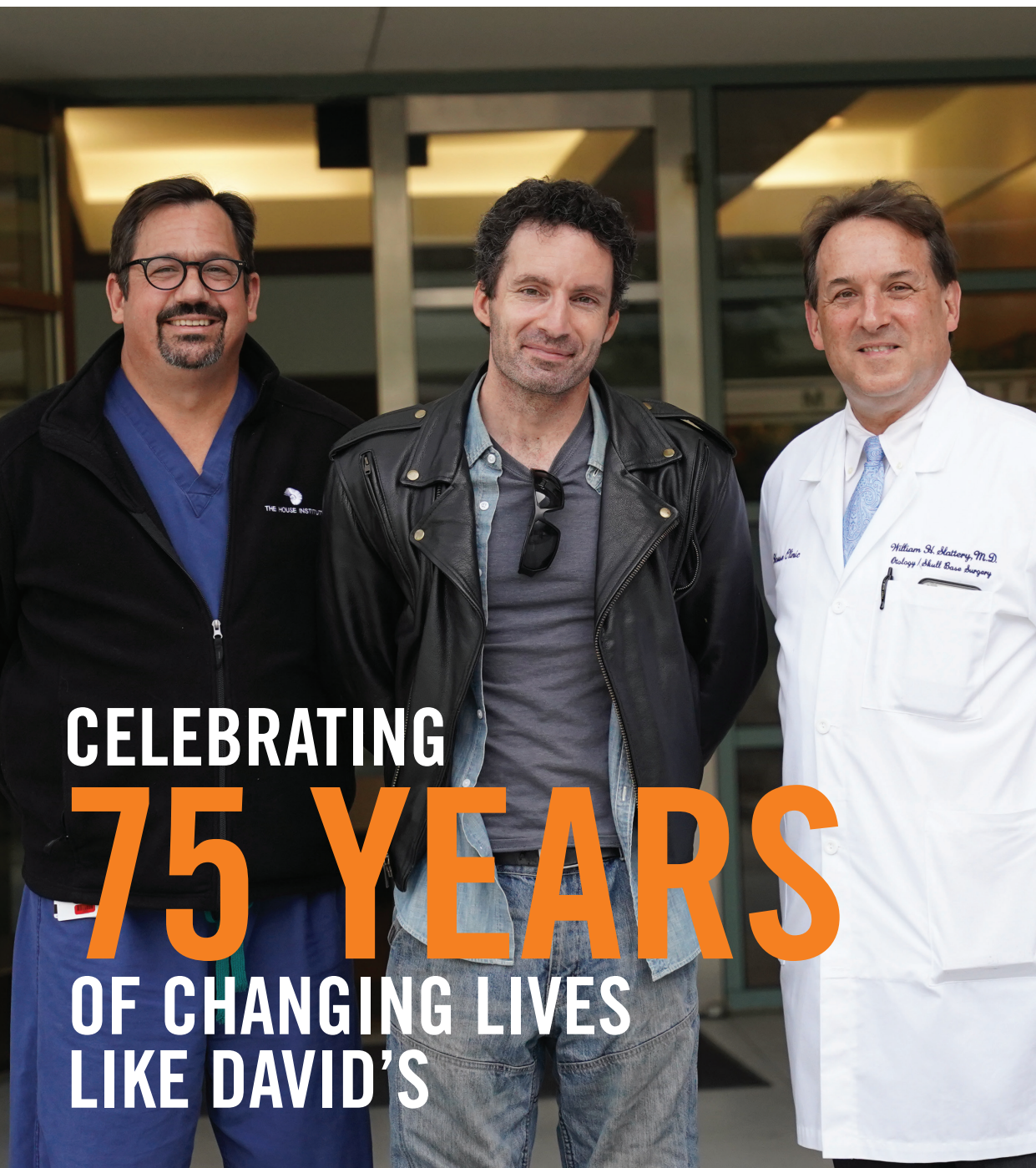
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