CI2023 Conference in Dallas Fosters Sharing of Ideas

MESSAGE FROM THE CHAIR
Andrea D. Warner-Czyz PhD
Department of Speech, Language, and Hearing
The University of Texas at Dallas
warnerczyz@utdallas.edu

We often receive advice to take a broader perspective, to view aspects of our personal or professional life from a different lens. This advice also applies to the field of cochlear implantation. We hone our clinical practices or teaching protocols based on our clinical experiences, professional expertise, and institutional guidelines, but we grow – and our patients and students benefit – from sharing our experiences with others in our field.

The CI2023 conference in Dallas fostered the sharing of ideas through an array of podium talks, poster presentations, and panel discussions carefully selected and organized by the CI2023 Dallas conference committee led by Co-chairs Kara Leyzac and Aaron Moberly. The conference featured presentations from 82 institutions across 17 countries on a variety of topics, including four major themes: Cytomegalovirus and cochlear implantation, bilingualism and cultural considerations, genetics of hearing loss, and implantation across the lifespan. The meeting also included several sessions focused on the benefits of interdisciplinary collaboration to optimize outcomes for
MESSAGE FROM THE CHAIR  continued from page 1

cochlear implant recipients. Finally, this year’s annual conference showcased the organization of three special interest groups (SIGs) formed to facilitate support and networking opportunities for members. One SIG focused on members with hearing loss and their unique experiences in the field. A second SIG centered on providing mentorship and guidance to students, fellows, and residents. A third SIG offered an avenue to discuss benefits and barriers associated with aural rehabilitation services for adult cochlear implant users. These SIGs afforded an open forum to discuss ideas across clinicians, researchers, and sites to allow members to learn and grow. The SIG meeting outcomes from Dallas are discussed by the group leaders on pages 16-17.

The 2023 conference highlighted important and emerging topics to move the field forward, and I have every confidence the CI2024 conference in Vancouver, British Columbia, will continue along this path. Next year’s conference represents the first international conference since our meeting in Toronto in 2016, which provides a perfect opportunity to view cochlear implants through an international lens. The Scientific Program Committee, led by Jake Hunter and Viral Tejani, has identified themes for next year’s conference, including successful pathways to cochlear implantation from a global perspective; the impact of cochlear implantation beyond listening, including literacy and quality of life; and evaluation of implant candidacy in special populations (e.g., very young, very old, single-sided deafness). I know our committee will construct a conference program with riveting keynote speakers and thoughtful sessions that highlight the hot topics in cochlear implantation. Part of the success of the conference depends on you and your willingness to share your own research, experiences, and viewpoints with your colleagues. Abstracts for the CI2024 conference opened in August, so please submit your research projects to present at next year’s conference in Vancouver before the deadline of October 18, 2023.

Taking a broader perspective requires not only sharing your experiences, but also listening to the unique viewpoints of others. Our most recent Chair of the Board, Oliver Adunka, exemplified this by nurturing candid conversations among the diverse individuals on our Board of Directors. As I begin my term as Chair, I hope to emulate Oliver by maintaining open and honest communication throughout our organization. Reflecting on shared experiences, practices, and ideas across colleagues will allow us to shape the outlook for cochlear implantation in the future.
SOUND CONNECTS US.

When hearing aids are no longer enough, Advanced Bionics cochlear implants can help your patients reconnect with the people and moments they love.

Watch the Leisures’ story of connection, and learn more about AB technology.

AdvancedBionics.com

Scan the code with your phone
We are excited to be leading the charge for the 2024 American Cochlear Implant Alliance CI meeting, set amidst the vibrant international backdrop of Vancouver, British Columbia, in July 2024. As the planning of this extraordinary gathering unfolds, it’s evident that collaboration knows no borders. Not only within the realm of cochlear implantation care, but also in planning this event with a number of Canadian leaders that promises to be enlightening, empowering, and transcendent for all who attend. Beyond the exchange of knowledge and expertise, we recognize the power of this gathering, which unites individuals along the entire spectrum of cochlear implantation care, spanning the globe.

Next year’s meeting is poised again to be the epicenter of groundbreaking insights and riveting discussions. The CI Conference Program Committee has meticulously curated seven key themes that lie at the current core of cochlear implantation for both adults and children. These themes reflect the dynamic and evolving landscape of auditory science:

**Successful Pathways to Cochlear Implantation: A Global Perspective.** Explore how patients are entering into the cochlear implantation pathway, what can be done to facilitate a positive change in

continued on page 5

We are looking forward to seeing all of you next summer in Vancouver, British Columbia!
this arena, and why patients who need a cochlear implant are not obtaining one. We desire to facilitate conversation of how we can all improve upon access for all.

**Effects of the COVID Pandemic on Cochlear Implant Outcomes.**
Gain a comprehensive understanding of the pandemic’s impact on cochlear implant patients and how the field has adapted to ensure optimal outcomes.

**Listening Impacts on Literacy and Learning in Children with Cochlear Implants.** Uncover the intricate relationship between auditory development, language, and literacy (both reading and writing) in young implant recipients.

**Socio-emotional Health in Cochlear Implant Users.** Explore the profound connection between hearing restoration and emotional well-being, highlighting the benefits of cochlear implantation beyond just improved hearing.

**Cochlear Implantation in Single-Sided Deafness for Adults and Children: Candidacy, Provision, and Outcomes.** Dive into the latest advancements in cochlear implantation for those with single-sided deafness, seeking to explore the intervention and auditory skills development for both adults and children, uncovering the transformative potential for all age groups.

**Cochlear Implantation Provision at Both Ends of the Age Spectrum.** Explore the feasibility and remarkable outcomes of cochlear implantation in individuals from under 6 months old and over 90 years of age.

**Optimized models for cochlear implant workflow.** Gain an understanding of novel workflows and strategies for a variety of practices that maximize the effectiveness and efficiency of delivering appropriate cochlear implant care to patients of all ages.

In addition to these seven stimulating key theme topics, the committee is also excited to expand the (Re)Habilitation Connect Forum, opening the forum to abstract submissions for a 20-minute presentation option. (Re)habilitation experts may also opt for a 9 minute-podium presentation or a poster. (See article below by Amy Birath for more details.) We seek to generate more focus on (re)habilitation topics, scattered throughout the meeting, welcoming both research and case studies of complex cases or clinical approaches.

The 2024 American Cochlear Implant Alliance Meeting is not just a conference; it’s a crossroads of innovation, collaboration, and hope. We are privileged to have the opportunity to work with the committee to create an exciting and motivating program. We are looking forward to seeing all of you next summer in Vancouver, British Columbia.
(Re)habilitation is Part of the Cochlear Implant Intervention

Amy Lynn Birath AuD, CCC-A/SLP, FAAA, LSLS Cert. AVEd
Moog Center for Deaf Education
Member, Board of Directors, ACI Alliance

As I contemplate the change of season from Summer to Fall, the beginning of another school year, and the shift from processing all that was CI2023 to planning everything that will be CI2024, I cannot help but think of the words of the great modern philosophers, Semisonic, in their song Closing Time, “Every new beginning comes from some other beginning’s end.”

After much discussion among the Board of Directors and the CI Conference Program Committee, and based on feedback from you, the membership, some exciting changes are coming for the upcoming (Re)Habilitation Connect Forum at CI2024. To improve and enhance the featured (re)habilitation offerings at our annual meeting, instead of having only invited speakers at the Forum, proposals related to (re)habilitation topics now may be submitted for any of the following session formats: 20-minute (Re)Habilitation Connect Forum presentations, 9-minute concurrent podium session presentations, or poster session presentations.

For CI2024, speech-language pathologists, educators, listening and spoken language specialists, psychologists, and other (re)hab-minded professionals are encouraged to submit proposals with a research base, intervention focus, and practical application pertaining specifically to:

- The impact of listening on literacy and learning
- Socio-emotional health in cochlear implant recipients
- Therapeutic intervention and outcomes for individuals with single-sided deafness or asymmetric hearing loss who undergo cochlear implantation
- Aural rehabilitation for adult cochlear implant recipients

- Intervention practices for children with cochlear implants utilizing listening and spoken language who have additional diagnoses and/or other communication needs
- Other relevant (re)habilitation-focused topics

Though this will be the end of the (Re)Habilitation Connect Forum as it was previously organized the last few years, it will be the beginning of a new approach to the Friday afternoon (Re)Habilitation Connect Forum which we believe will provide a robust and engaging learning experience and facilitate broad participation and interest for presenters and attendees. It is our intent to encourage discussion of best practices in (re)habilitation throughout the meeting for the children and adults we serve. Please consider submitting a proposal, and plan on attending this notable Friday afternoon session in Vancouver.
CI2024 VANCOUVER at a Glance

Conference Dates
Wednesday, July 10 – Saturday, July 13, 2024

Conference Website
https://ci2024vancouver.org/
(Links to Scientific Program, Registration, Meeting Venue, Conference Hotels, updates as available)

Meeting Venue
https://www.vancouverconventioncentre.com/
Vancouver Convention Centre

Conference Hotels
https://ci2024vancouver.org/meeting-venue-and-hotel/
Hyatt Regency Vancouver
Fairmont Vancouver
Fairmont Waterfront Vancouver
Pan Pacific Vancouver

CI Manufacturer Satellite Symposia
Wednesday, July 10, starting at 1:00 PM (PT)

CI Manufacturer Breakfast Symposia
Thursday, Friday, Saturday mornings at 7:30 AM (PT)

Registration Opens
January 16, 2024
(Discounts for Early Registration and Members)

Early Bird Registration Ends
April 19, 2024

Abstract Submissions
Site now open Abstract
Abstracts due: October 18

Notification of Abstract Acceptances
January 2024

Confirmation of Acceptance by Presenter
February 28, 2024

Presenter Registration Required by
March 31, 2024

Program Published
April 2024

Innovative Hearing Access in Vancouver

As an organization that promotes hearing accessibility, we have also taken steps to accommodate attendees with hearing loss by offering real-time computer assisted captioning at our annual conferences. All sessions will have computer assisted real-time captioning (CART) to ensure full accessibility for attendees with hearing loss and to support those for whom English is a second language. Captioning software allows for attendees who desire language translation to access it on their mobile devices in over 80 different languages. This year, in addition to captioning, we will offer an innovative WiFi assistive listening system, accessed through one’s mobile phone to allow direct connection from the conference sound system to hearing aids and cochlear implants. The system will be installed in the main ballroom and concurrent session rooms to provide hearing access for those with hearing loss. For attendees who do not use personal hearing technology and need hearing support, the system will be accessible via headphones. The system is very new and we are excited to offer its use for attendees in Vancouver with the assistance of the Wavefront Centre for Communication Accessibility in Vancouver.
### Cochlear® Nucleus® 8 Sound Processor

**Smaller. Smarter. Better connected.**

Help your patients engage with life and experience the comfort of the world's smallest and lightest behind-the-ear cochlear implant sound processor.¹

The Nucleus® 8 Sound Processor delivers smarter hearing technology and features an improved ForwardFocus™ which automatically and seamlessly adjusts to your patient’s listening environment.²-⁶,* Ready for next generation Bluetooth® LE Audio technology, it will make it easy for your patients to bring sounds closer – in more places and from more devices than ever.⁷-⁹,*

To find out more visit [www.cochlear.us/acia-calling](http://www.cochlear.us/acia-calling)

---

¹ ForwardFocus can only be enabled by a hearing implant specialist. It should only be activated for users 12 years and older who are able to reliably provide feedback on sound quality and understand how to use the feature when moving to different or changing environments. It may be possible to have decreased speech understanding when using ForwardFocus in a quiet environment. * Compared to Nucleus 6 and Nucleus 7 sound processors.
² When the technology becomes available for the Cochlear Nucleus 8 Sound Processor, a firmware update to your sound processor will allow you to connect to Bluetooth LE Audio compatible devices.
³ Comparison made using the Compact Battery Module for Nucleus 8 Sound Processor and the Nucleus 6 (CP910) Sound Processor.
⁴ Comparison made using a Compact Battery Module with the Nucleus 8 Sound Processor and the Nucleus 6 (CP910) Sound Processor.
⁵ Comparison made using the Compact Battery Module for Nucleus 8 Sound Processor and the Nucleus 7 Sound Processor.
⁶ Comparison made using the Compact Rechargeable Battery for Nucleus 7 Sound Processor.
⁷ Comparison made using the Compact Battery Module with the Nucleus 8 Sound Processor and the Nucleus 6 (CP910) Sound Processor.
⁸ Comparison made using the Compact Rechargeable Battery for Nucleus 7 Sound Processor.
⁹ Comparison made using a Compact Battery Module with the Nucleus 8 Sound Processor and the Nucleus 6 (CP910) Sound Processor.

©Cochlear Limited 2022. All rights reserved. Cochlear, Hear now. And always, Nucleus, Kanso, Baha, Osia, the elliptical logo, and marks bearing an ® or ™ symbol, are either trademarks or registered trademarks of the Cochlear group of companies (unless otherwise noted).
Continuing Education will be offered at the CI2024 Vancouver Conference in similar manner to what has been provided at past conferences with CEU and CME being offered from the following providers:

- AG Bell Academy for Listening and Spoken Language
- American Speech-Language-Hearing Association (ASHA)
- American Academy of Audiology (AAA) including Tier One hours
- American College of Surgeons (ACS)

The amount of CEU credit offered will be similar to those awarded in past years, approximately 2.0 credit hours. We will be using an online format for claiming forms. Forms will be due a few days after the conference concludes. It will be important to have your member account number for each CEU provider you plan to submit for in order on hand when you register for the CI2024 conference. Providing your member number ensures we properly account for your CEU hours. If you have questions on Continuing Education, please contact Jessica Houk of ACI Alliance at jhouk@acialliance.org.

CI2024 attendees will love Vancouver’s beautiful setting, abundant amenities, and walkable neighborhoods during (or before or after) the conference. Plan to spend extra time in the city and surrounding area to take full advantage of everything Vancouver has to offer.

Vancouver is a popular travel destination in all seasons but during the summer there is a wide variety of recreational activities, cultural attractions, sites and entertainment options that make extending your time in Vancouver well worth it. Families with children of all ages and adventurous visitors will find exciting activities in the city and outside the city limits.

City Amenities
Within the city, there is abundance of museums, art galleries and parks to explore. Stanley Park is Vancouver’s largest urban park, and with scenic water views along the famous Seawall, cultural and historical landmarks and even Canada’s largest aquarium. Queen Elizabeth Park is the highest point in Vancouver with panoramic views of the city and mountains. It is also a draw for floral and garden enthusiasts with the Blodel Conservatory and Arboretum.

The Vancouver Art Gallery is Western Canada’s largest public art museum with over 12,600 works in its permanent collections and rotating temporary exhibitions. Science World is housed in the iconic geodesic dome seen in many photos of downtown Vancouver, and includes interactive and hands-on exhibits in the STEM field.

The culinary scene in Vancouver reflects the diversity of the city and has something for everyone. There are local spots featuring fresh seafood and menus focused on the Pacific Northwest, casual French bistros and modern pubs, and high-end waterfront dining from steakhouses to sushi. For those seeking an elevated experience, Vancouver is home to 8 Michelin star restaurants.

Getting around Vancouver to see these sites and more is easy with a public transit system, pedestrian friendly walkable neighborhoods and ample bike lanes with bike rentals available.

Exploring Outside the City
Only 15 minutes outside the city and accessible by public transit, the world famous Capilano Suspension Bridge spans 137m (450 ft) and 70m (230ft) high above the Capilano River and offers stunning views of the rainforest and canyon below.

Located about an hour’s drive north of Vancouver, the Sea to Sky Gondola offers a unique perspective of the mountain town of Squamish and the surrounding alpine scenery from inside the 8-person gondolas with floor to ceiling glass windows 2,900 feet (880m) above sea level.

Visitors can take a ferry to Vancouver Island, located about 97km (60 miles) west of Vancouver. Vancouver Island offers something for everyone, from incredible scenery and wildlife to a vibrant food and beverage scene, outdoor recreation, and vast opportunities to learn about the indigenous history of the island.

Vancouver’s attractions expand far beyond this list and we encourage you to visit Vancouver’s tourism guides and destination listings as you begin to plan your trip.
Listening → Language → Literacy
for All Deaf and Hard of Hearing Children

Donna L. Sorkin MA
Executive Director, ACI Alliance
dsorkin@acialliance.org

At the urging of our members, ACI Alliance organized a critical initiative in January 2023 to explore and suggest how we might better communicate the benefits of listening for language development in children who are deaf and hard of hearing. The project was urged by professionals who work in early childhood hearing loss as they were alarmed at the extent to which families, hearing care professionals, pediatricians, public officials, media, and others were being provided with information that implied that unless children with hearing loss had access to sign language (specifically ASL), they would be unable to develop age-appropriate language and were at risk of being language deprived. Such language appears on state websites. State, and even, local officials were being urged by groups to alter parent advisement practices that have been in place as part of Federally funded Early Hearing Detection and Intervention (EHDI) programs for over two decades. Since its initiation in 2000, EHDI has emphasized the importance of parent information that is accurate and comprehensively covers the range of technology and communication options available to families of young deaf and hard of hearing children without being preferential to one modality.

Collaborative Process Initiated
We assembled a group of individuals that included parents of deaf families, educators of children with hearing loss, audiologists, speech pathologists, a surgeon, psychologists, university-based early intervention experts, and adults with hearing loss. The group agreed that they wished to explore and develop research-based messages relative to listening and language learning in deaf and hard of hearing children. Our effort was not limited to children who have, or may receive, cochlear implants but rather spanned the continuum of pediatric hearing loss from mild to profound. The Task Force Members identified below worked together for six months, collaborating to develop specific messaging that we wished to widely share.

Encouraging Families to Build their Child’s Brain
Early on, we looked at research and published work on language learning in typically hearing children. Dr. Dana Suskind’s landmark book, Thirty Million Words: Building a Child’s Brain (2015), emphasized the critical importance of parent conversations with their children and the impact such interactions had on a child’s lifetime accomplishments with a simple message to families:

continued on page 11
LISTENING → LANGUAGE → LITERACY continued from page 10

“The most important thing you can do for your child’s future success in life is to talk to them.” The work of Dr. Suskind, a CI surgeon at the University of Chicago, was based upon earlier studies completed by Hart & Risley (Meaningful differences in the everyday experiences of young American children, 1995). While the central message of Suskind’s book is not specific to families of children with hearing loss, the emphasis it provides on the importance of rich verbal interaction in families is even more critical for deaf and hard of hearing children.

We reviewed published work by the pediatric nursing community that used the term Language Nutrition to communicate to families on the need to utilize language rich in quality and quantity with their children from the earliest age (Zauche LH et al, J Pediatric Health, 2017). In discussing the Language Nutrition concept, they noted that a child’s vocabulary at age 3 is the single strongest predictor of a child’s ability to read proficiently by grade 3. The nursing community hoped to convey the message that language exposure was crucial to a child’s development and associated with literacy and academic achievement. These concepts apply to all children but are critical for those who are deaf and hard of hearing.

We met with public and private educators working with children who are deaf and hard of hearing. A significant collaboration in Georgia led to use of the term Language Nutrition and their encouragement of families to use the language of the home—the language that they are most comfortable with whether that be English, Spanish, Polish or ASL. The efforts promoted families to talk, interact, read, and engage with their children every day and emphasized that families have the power to impact their child’s reading and writing ability by taking steps that they are comfortable with.

In Georgia, during the timeframe after the initiation of the Language Nutrition program, reading scores increased—even during the COVID timeframe when most school districts measured a decline in reading achievement.

This is the message that the Task Force agreed upon to summarize and communicate our findings. continued on page 12

Literacy is Supported by Rich Language of the Home and Heart

- All children—especially those who are deaf or hard of hearing—benefit from language exposure rich in quantity and quality (Language Nutrition).
- Families are more successful in building their child’s literacy when they are comfortable when talking with their child.
- Research shows the benefit of home language on a child’s learning and social/emotional well-being.
- Listening allows children to hear the sounds of language, facilitating reading and writing.

References:
Zauche LH et al, J Pediatric Health, 2017. (main audience; pediatric nurses)
Too Small to Fail US Department of Education, UNESCO
LISTENING ➔ LANGUAGE ➔ LITERACY  continued from page 11

What comes next?
The Task Force efforts and the final graphic message was presented at CI2023 in Dallas. Our members and others are excited and enthusiastic about this emphasis on the importance of parents being brought into the language development process for children with hearing loss and the simple term that summarizes this process—Language Nutrition. Too often, families are discouraged by early intervention messaging that doesn’t emphasize their own knowledge of, and comfort with, the language of the home and the ability for the entire family unit to advance the language of a child with hearing loss.

As an organization, we encourage everyone in the pediatric hearing loss community to push these concepts forward. The upcoming CI2024 Vancouver conference lists, as one of the meeting themes, the importance of listening for language development and literacy and encourages submission of abstracts on this topic. In short order, we have heard from members of the creative ways they plan to push this forward with their families and patients with such tools as videos in Spanish, virtual talks, parent seminars, outreach to state early intervention agencies, research projects, publications, magazine articles, social networks, and messaging for the general media. Please let us know if you need help in pressing forward with this important new campaign. To download a pdf of the above infographic, go to https://www.acialliance.org/page/awareness_initiative.

Proposals related to (re)habilitation topics now may be submitted for any of the following session formats:

- 20-minute (Re)Habilitation Connect Forum session (plus Q&A)
- 9-minute Concurrent Podium session (plus Q&A)
- Poster Presentation

Speech-language pathologists, educators, listening and spoken language specialists, psychologists, and other (re)hab-minded professionals are encouraged to submit proposals on content related to (re)habilitation for both children and adults.

Click the link below for more information and/or to submit an abstract.

Scientific Program - ACI Alliance CI2024 Vancouver Meeting

Questions? Contact:
Amy Lynn Birath, AuD
abirath@moogcenter.org
Confidence over the phone
Captions confirm every word they hear

CapTel® Captioned Telephones show captions of everything a caller says over the phone. It’s like closed captions on TV, only for phone calls. CapTel restores a patient’s confidence in talking over the telephone, knowing they can confirm what they hear just by reading the captions.

1-800-233-9130
captel.com

CapTel 2400i
A Multicenter Clinical Trial to Address Cochlear Implantation of Children with Single-Sided Deafness

Jill B. Firszt PhD, Laura K. Holden AuD, Nöel Dwyer AuD, Ruth M. Reeder MA, Tim Holden BSE, and the Pediatric SSD Study Team
Washington University School of Medicine, St. Louis, MO

Children with single-sided deafness (SSD) have impaired binaural cues, which degrades communication in daily life (1-3). While some evidence suggests benefit from a cochlear implant (CI) for children with SSD, guidelines regarding candidacy criteria, assessment tools and expected outcomes are not well defined. The study objective is to conduct a prospective clinical trial to evaluate performance and a range of quality-of-life outcomes in children with SSD who receive a CI.

The current FDA-approved (G190269) and NIH/NIDCD funded (U01DC018942) clinical trial is a multicenter, two phase, longitudinal study, comprised of five geographically diverse sites. The five study sites and Principal Investigators at each site are: Washington University School of Medicine, St. Louis (Jill B. Firszt PhD and Jamie Cadieux AuD, St. Louis Children’s Hospital); University of Southern California, Los Angeles (Laurie S. Eisenberg PhD); Children’s Hospital of Philadelphia (John A. Germiller MD, PhD); Hearts for Hearing, Oklahoma City, OK (Sara Neumann AuD); and Fairview Health Services, University of Minnesota (Margaret Koeritzer AuD).

A hearing aid phase assesses performance with the most current hearing aid technology and is followed by a CI phase. Approximately 40 children, ages 4-14 years old, with SSD will be enrolled. Hearing criteria for the poor ear expands the current FDA-approved criteria (4-5). Criteria for the poor ear includes a PTA (.5, 1, & 2 kHz) > 70 dB HL and an aided CNC word score < 40% at 60 dB SPL. The better ear criteria include a PTA (.5, 1, 2, & 4 kHz) ≤ 25 dB HL and a CNC word score ≥ 70%. Onset of severe to profound hearing loss may be congenital for children 4-5 years of age, whereas children 6 years and older will have evidence of non-congenital onset (e.g., passed newborn hearing screening). Forty children with bilateral normal hearing who are matched for age, gender, and parent education to the children with SSD will be enrolled and evaluated at three longitudinal time points using the study measures.

The study protocol includes objective and subjective measures designed to elucidate communication challenges encountered by children with SSD, including word understanding at soft levels, speech understanding in spatially separated noise, and localization/lateralization. Quality of life measures address communication in real-world listening situations, general and cognitive fatigue, and social and

continued on page 15
MULTICENTER CLINICAL TRIAL  continued from page 14

emotional function. Questionnaires are administered to both the parents/caregivers and the child with SSD. Participant recruitment and data collection is ongoing. To date, 26 children with SSD have enrolled, 20 children have completed the hearing aid phase, and 18 have had CI surgery and are in the post-implant CI phase.

A successful multicenter clinical trial is warranted to prospectively quantify outcomes and investigate factors affecting successful use of a CI in children with SSD. Study results will provide new information to inform and improve clinical management and treatment of children with SSD. Prospective results for this SSD pediatric population are also needed to support health insurance coverage and the increasing number of families and patients seeking a CI (6).

We are seeking additional children who meet the study criteria. Information regarding the study and contact information for each study location is available at ClinicalTrials.gov (NCT04793412). Questions may also be directed to Noël Dwyer at ndwyer@wustl.edu or Laura Holden at laurakholden@wustl.edu at Washington University School of Medicine, St. Louis.

Editor’s Note: ACI Alliance sponsored a Task Force led by Lisa Park AuD to develop “Guidelines for Clinical Assessment and Management of Cochlear Implantation in Children with Single-Sided Deafness” to foster broader understanding of candidacy determination and management of this pediatric population. The Task Force work was published in Ear & Hearing and may be viewed here: https://www.acialliance.org/page/DeterminingCICandidacy. The clinical trial described above by Jill Firszt will provide rigorous clinical research findings on CI in the pediatric SSD population age 4-14.

References
4. US Food & Drug Administration. MED-EL notification of premarket approval for expanding indications to include SSD and asymmetric hearing loss. 2019. Available at: https://www.accessdata.fda.gov/cdrh_docs/pdf/P000025S104A.pdf.
Special Interest Groups (SIGs) Begun in Dallas

Three Special Interest Groups (SIGs) were initiated and met at CI2023 Dallas to provide an opportunity for discussion, networking, and support from peers—support that will continue outside of the conference. The three SIGs are (1) student/early career mentorship, (2) needs of CI clinicians and researchers with hearing loss, and (3) adult aural rehabilitation post CI. These SIGs advance the NIDCD goals noted in the 2023-2027 Strategic Plan of workforce diversity, equity, inclusion, and accessibility.

Student/Early Career Mentorship Special Interest Group

Jordana McNair AuD, Children’s Hearing Program, Department of Otolaryngology, University of Miami

Kevin Zhan MD
Otologist, Northwestern Medicine

CI2023 Dallas was the site of a fantastic networking luncheon for students and early career professionals at all levels. Audiology students and externs, medical students, ENT residents, and ENT fellows filled a packed room to discuss a range of topics extending from how best to survive on 4th year audiology externships, finding good mentors, interview tips for residency applications, how to best plan several research projects, and much more. Jordan McNair AuD (audiologist at University of Miami) and Kevin Zhan, MD (otologist at Northwestern Medicine) served as panelists and facilitators to a lively and organic discussion on professional development, networking, the job search, and a palpable passion for helping those with hearing loss and cochlear implants. The event was a huge success with numerous students reaching out afterwards to connect with each other and panelists alike.

Deaf and Hard of Hearing Professionals (DHH) Special Interest Group

Viral Tejani AuD, PhD
Assistant Professor, Otolaryngology—Head and Neck Surgery

Senior Clinical Research Audiologist, Cochlear Implant Program
University Hospitals Cleveland Medical Center / Case Western Reserve University

The Deaf and Hard of Hearing (DHH) Professionals Special Interest Group held their inaugural roundtable at CI 2023 in Dallas. This SIG is composed of students and professionals from clinical, research, and industry backgrounds in the cochlear implant field. The formation of this SIG was inspired by a similar group (Association of Audiologists with Hearing Loss) that was spearheaded by Samuel Atcherson PhD and Suzanne Yoder AuD in 2001, as they recognized early on the need for a support system for those with hearing loss with dreams to enter the clinical audiology profession.

A panel consisting of Chad Ruffin MD, Jim Dornhoffer MD, and Tina Childress AuD was moderated by Jessica Hoffman AuD and myself. There were 25 DHH students and professionals in attendance, representing a mix of clinicians and researchers, hearing aid and cochlear implant users, and etiologies of hearing loss. We had a lively discussion on audism, workplace accessibility/advocacy, educating trainees with hearing loss, crafting an elevator pitch, microaggressions, and more.

ACI Alliance has provided real-time computer assisted captioning at all of the CI conferences since its continued on page 17
first meeting in 2013, and now they have taken another step forward in inclusivity by supporting the creation of the Deaf and Hard of Hearing Professionals SIG. Our SIG calls upon ACI Alliance leadership and membership to have open, honest dialogue about the needs of DHH professionals without judgment, especially given the rising number of DHH students / professionals within our field. Our two-fold plans include growing the SIG internally and promoting dialog between the SIG and ACI Alliance leadership / membership at large. This dialogue will include accessibility and understanding the perspectives of DHH professionals. We are excited at the great start of this SIG and look forward to continued growth and success as well as collaboration with the organization’s leadership and membership.

Adult Rehabilitation Special Interest Group

Pam Dawson MEd
Executive Director, hear ME now

James Saunders MD
Professor of Otology/Neurotology, Geisel School of Medicine at Dartmouth

Aural Rehabilitation for post-lingually deaf adult cochlear implant patients is a service that is not widely available and is poorly reimbursed. A survey that SIG leaders Pam Dawson and James Saunders developed and distributed through the ACI Alliance membership survey mechanism in February 2023 received responses from 21 cochlear implant programs. Key findings included:

- 60% offer Adult Aural Rehabilitation (AR)
- Providers (check all that apply) were: SLPs (85%) and audiologists (25%)
- Funding Sources for AR were noted as: Public/private insurance (75%), Patient self-pay (50%), Grants (25%)
- 67% lose money providing Aural Rehabilitation
- 40% do not offer Aural Rehabilitation due to: low reimbursement rates (15% of cost) and no SLPs on staff (86%)

When queried about outcomes on the Likert Scale, respondents indicated that:

- AR improves speech perception outcomes in adult CI patients (90% Agree)
- AR improves quality of life outcomes for adult CI patients (85% Agree)

Fifteen people met at the CI2023 conference in Dallas. Based on their discussion, the group suggests the formation of an ACI Alliance Aural Rehabilitation Special Interest Group to examine the following topics and make recommendations to the membership and to appropriate stakeholders in the field.

**Topic: Increasing awareness of the efficacy of Aural Rehabilitation**

Potential Recommendations:
- Informational series/materials for audiologists
- Informational series/materials for patients
- Getting the outcome data publicized
  - Research – What is out there?
    - Do manufacturers have any outcomes data from their AR products?

**Topic: Setting an expectation of participation in AR for adult patients**

Potential Recommendations:
- Scheduling of AR appointments as part of surgery/mapping follow up process

**Topic: Reimbursement**

Potential Recommendations:
- Maximizing use and coordination of procedure codes by both Speech Pathologists and Audiologists
- Advocating for additional specialty procedure codes specific to Aural Rehabilitation for CI patients by SLPs

In addition to the 15 attendees at the Dallas meeting, 9 respondents to the survey also expressed interest in a special interest group.

The group discussed the specific codes that can be used to bill for audiology or speech language pathology services for adult patients. It was noted that there is confusion about which codes can be used and the reimbursement for each. Reimbursement for both audiology and speech are problematic for many institutions.
Student Offerings at CI2023 Dallas

Jessica Houk MBA
Manager of Information Technology and Membership Services / ACI Alliance
jhouk@acialliance.org

Student opportunities in Dallas again attracted a large contingent of students, residents, fellows, and those in externships from a range of disciplines. The student poster competition was open to undergraduate and graduate students as well as residents. Forty-seven posters were entered into the Student Poster Competition. These were judged by a committee of our members based upon content, organization, originality, merit, and presentation.

We would like to congratulate the student poster winners:

Hannah Dunn AuD, Yale Hearing and Balance Center won for her poster “Vestibular Weakness in Cochlear Implant Recipients.” Hannah obtained a BA from the University of Iowa in 2019 and graduated from Purdue University with a Doctorate of Audiology in May 2023.

Samir Gouin BS, McGill University won for “Identifying Auditory Emotion Bio-Markers in Cochlear Implant Users with Machine Learning.” Samir is finishing his second year of medical school at McGill University in Montreal, Canada and previously received a BS in Neuroscience from McGill.

Darla McDonald M.Ed, BS, University of North Carolina at Chapel Hill School of Medicine won for her poster “Effectiveness of modified map settings to reduce perceived tinnitus severity.” Darla is a rising third-year Doctor of Audiology student at the University of North Carolina, Chapel Hill and works as a clinical research assistant in the UNC Cochlear Implant Clinical Research Lab.

We are pleased to offer student scholarships to CI2024 Vancouver: 17th International Conference on Cochlear Implants and other Implantable Technologies, July 10-13, 2024. Scholarships for full-time students, fellows and postdoctoral scholars who have a clinical or research interest in cochlear implants are awarded for each of our annual CI Symposium. Awards include registration to the meeting, a $120 stipend, and a student membership in American Cochlear Implant Alliance. The deadline to submit a CI2024 Student Scholarship Application is January 12, 2024. Apply here: https://facs.jotform.com/232344065078152

continued on page 19
Honorable mentions for posters were awarded to:

- Kayli Silverstein, Mayo Clinic for “Does Time of Cochlear Implant Activation Influence Hearing Outcome?”
- Madeline Gibson, UCSD for “Successful Audiological Outcomes with bilateral ABI in a patient with NF2”
- Hejera Afreen, The Ohio State University for “Do Aminoglycosides Affect Preterm Hearing?”

Student posters were reviewed by a committee of members from across the care continuum that was chaired by Jacob B. Hunter MD. Other judges included, Melissa J. W. Hall, AuD/SLP, Debbie Hatch, AuD, Michael Hoa, MD, Sarah L. Lively, AuD, Theodore McRackan MD, Aaron Moberly MD, Sarah Mowry MD, Meredith Ouellette MS, Lisa Park AuD, and Melissa Sweeney MS, LSLS Cert. AVT.

Student participation is an important component in our efforts to increase clinical and research involvement in CI and we look forward to welcoming students to CI2024 Vancouver.
Nichole J. Westin MA
Government Affairs Manager
ACI Alliance
nwestin@acialliance.org

Steps We Take to Mitigate Policy Problems

Our State Champions and other advocates continue a focused effort to protect all options for communication and technology. Legislation has been (or will be) introduced in states that would hamper, if not skip altogether, the important steps for assessing and providing unbiased information to families of children who are deaf or hard of hearing. ACI Alliance has always advocated that families must be provided with unbiased information and then supported on whatever path they choose—whether it be aural, sign, or a combination of modalities.

The guardrails established by federal laws including the Individuals with Disabilities Education Act (IDEA) and the Early Hearing Detection and Intervention Act (EHDI) are intended to ensure that a family will have access and support to the language of the home as informed by the family’s background, heritage, and reality. ACI Alliance supports these federal bills by working with EHDI coordinators, other hearing health organizations, formal (and informal) parent groups, clinicians, our advocacy networks and the families themselves by speaking out against bills that would hinder such access. This can include providing careful wording changes to impede any negative impact. Our State Champions are at the forefront of these efforts. In recent years they have argued for better representation on new boards and that any committee set up to establish guidelines outside the federal scope sunset after a certain timeframe.

Why push back on bills that might look good as drafted? The reality is that good intentions can lead to bad implementations. We hear from families that have had information withheld or are told one path is the best. Clinicians report delays in intervention due to lack of information on technology or language. Most of these bills are written as if the community of children with hearing loss is uniform. Hearing loss manifests in many ways so any legislation that groups all children together with one solution is problematic and does not take into consideration the whole child. A child born with unilateral mild loss will require different interventions than one who is bilateral and profound from birth. Likewise, a child identified with CMV at birth and with no hearing loss initially may lose hearing in one or both ears as they age. Any IEP or IFSP should reflect that uniqueness and be flexible as should any legislation affecting deaf or hard of hearing children.

When a problematic bill is introduced, we do our best to provide up to date data and information to inform state representatives about the intended scope of early intervention services. State representatives may support state proposed legislation without understanding the reality of families and hearing loss in children. As the article on page 10 on Listening—Language—Literacy details, families and children with hearing loss are more likely to thrive when they are supported in the home language of their family.

Despite our best efforts, there are times when bills that we feel interfere with unbiased access do pass. What happens then? First, we monitor implementation of the legislation to ensure that it follows federal and state laws. If the assessment is that new rules will obstruct IDEA or EHDI, we engage with the government agencies that have oversight to discuss the issues and provide recommendations to bring policies in line with federal law. We also support families that are negatively impacted.

Supporting legislation that will have a positive impact is the best form of advocacy, but our reality is that we will have to work against bills that hinder unbiased access to early intervention and educational services. You can find a list of our State Champions here. If you are interested in joining these efforts as a State Champion, contact Nichole Westin at nwestin@acialliance.org.
The American Cochlear Implant Alliance (ACI Alliance) is more than an organization—it’s an active and welcoming community. This incredibly diverse group of people is global in its makeup and scope of work, yet the ACI Alliance community is intimate and engaging. From the very first ACI Alliance meeting that I attended in Nashville (TN) in 2014, I realized that the ACI Alliance was a caring and closely knit community that I wanted to be a part of. My name is Matthew L. Bush, and I am a Professor, the Vice-Chair for Research, and the Director of the Cochlear Implant Program at the University of Kentucky Department of Otolaryngology – Head and Neck Surgery in Lexington, Kentucky. I am a cochlear implant surgeon and a clinician scientist, and my practice and research are devoted to improving access and utilization of hearing health care. I am proud to say that I am a member of the American Cochlear Implant Alliance, and I am honored to be selected to the board of this incredible organization.

I have been amazed with the passion and purpose that members of this organization put into their clinical care, research, education, and advocacy. I witnessed this passion and purpose firsthand as I served as Co-Chair of the CI2022 annual conference alongside Dr. Lisa Park. Working closely with the dedicated ACI Alliance staff and board, the tireless program committee, and the content contributors of the conference, I gained an aerial 30,000-foot perspective of how this community is advancing the cochlear implant field in such impactful ways. Emerging from the COVID-19 pandemic, the CI2022 meeting in Washington, DC was a great success that demonstrated that the ACI Alliance is alive and well and actively addressing the challenges facing the cochlear implant community.

In my career as a clinician scientist, I have worked to define, describe, and eliminate inequities in cochlear implant care. After 13 years of active research in this field, I feel like we have only scratched the surface and there is so much work to be done to advance equity in cochlear implant care for all. With my background in health equity, I greatly value organizations that are proactive in promoting the health and wellness of individuals with hearing loss. Thus, ACI Alliance has become such an important organization to me personally and professionally. I am dedicated to use my expertise to advance the field of cochlear implantation and as a board member, I commit to serve the needs and priorities of the ACI Alliance. The future of the cochlear implant community is bright, thanks to the people and the work of the American Cochlear Implant Alliance.

Cochlear implants and the incredible benefits they offer to individuals and families has become integral to my identity. I have been working with children and adults with hearing loss for the majority of my adult life. Over the past 20 years, I have had the privilege of seeing the positive impact that these devices can make on a person’s life trajectory. Currently, I serve on the University of Florida Health Cochlear Implant Program in a variety of capacities. Providing direct patient care is my passion, and working with patients and their families as they progress through stages of their lives with the added benefit of access to cochlear implants has been nothing short of humbling. Being able to witness a child go on to not just do well, but actually reach their potential both recreationally and
occupationally, is what makes the field of cochlear implants so unique. As hearing healthcare providers, we have the opportunity to significantly improve the overall quality of life of people with hearing loss. Cochlear implants serve as a daily reminder in my life of how powerful our impact can be as providers.

I started out working with children with hearing loss and cochlear implants while providing speech and language therapy services. Through those experiences, I was able to further my education and become an audiologist. I have had the great opportunity to work with amazing professionals who helped to shape not only the type of hearing healthcare provider I would become, but also what kind of person I wanted to become. Working alongside those professionals further spurred on my passion to improve my own skill set to better meet the needs of those patients and families in my care. I was able to witness true collaboration for the betterment of all of those within our reach, in the clinic setting and beyond. While working at multiple cochlear implant centers in the Southeast over the course of my career, one commonality resonated, which is that these centers are filled with caring professionals who want to make a positive influence on the lives of people who have hearing loss, and they regularly go above and beyond to continually learn from those in their care to improve outcomes even further.

Personally, cochlear implants also play a role in my own life daily. My husband is a bilateral cochlear implant recipient. I have been fortunate enough to be able to work with people clinically, and to garner a personal perspective on what it truly means to be touched by hearing loss. Hearing loss impacts the person with hearing loss and their entire world around them. Families have to pivot and learn how to incorporate strategies to improve their own quality of life and that of their family member with hearing loss. Cochlear implants are a life changing tool, without which my own life would be immensely different. I’m often humbled when I think about the experiences my patients and their families go through, and how I am able to draw on personal experiences to provide specialty guidance. Cochlear implants enable so many to become whatever their potential allows. Without this amazing technology, so many lives would be irrevocably and profoundly changed. I am thankful for the opportunity to have served and to continue to serve on the ACI Alliance Board of Directors. The professionals I have had the privilege of working with while on the board have furthered my own perspective from local community, to personal experience, to a national and global appreciation of the positive impact the work we do together has on the world of hearing healthcare. The ACI Alliance mission and many projects we undertake are integral to moving the needle toward improved access to cochlear implants for all those who may benefit. I am so proud to be a part of that mission and beyond grateful for my time on the board.

Could you contribute to the Board of Directors?

Later this Fall, we will announce new opportunities to become a board member for the American Cochlear Implant Alliance (ACI Alliance). We encourage nominations for individuals who would have a positive impact on the organization from a leadership standpoint. That individual might be yourself or another person whom you would like to nominate. We welcome and encourage nominations from, or for, any individual who has relevant cochlear implant experience. Responsibilities of board membership include attending the annual ACI Alliance conference, in-person board meetings, conference calls, and participation on various board initiatives. All expenses associated with being on the board are the responsibility of the individual. Keep an eye out for more information on board applications.
A Parent’s Perspective
Identical Twins that Share Everything Except CMV and Deafness

Sonia Herman

Today my daughter Greta is 3 years old—thriving and loving her cochlear implant and hearing aid. But getting to this point was quite the journey.

Greta is an identical twin. Since identical twins are a particularly high-risk pregnancy, I received weekly ultrasounds, and delivered Greta and her twin Elise at 34 weeks. After an uneventful 16-day NICU stay, Greta failed her hearing test on one side just before discharge. I was given the classic (intended calming tactic) “It’s probably just fluid.” It was May 2020, at the height of COVID. I just wanted to get my babies out of the hospital. I trusted that the test outcome was due to fluid and went home to care for three kids under 3 in a pandemic.

A month after coming home, Greta went back to get an ABR and failed. We then spoke with an ENT who recommended genetic testing because he noted that the other common cause of newborn hearing loss, Cytomegalovirus (CMV), “doesn’t cause unilateral hearing loss.”

With identical twins I was especially nervous about genetic problems and consequently it wasn’t until the genetic test came back with nothing of note that I started researching CMV.

As soon as I googled CMV, my stomach dropped to the floor. I instantly knew the ENT had given me inaccurate information and that CMV was a likely cause of Greta’s hearing loss. I could picture standing in an apartment years earlier, reading a letter from the Red Cross asking me to donate as frequently as possible because of my ‘special baby blood’—AKA CMV-negative blood. I have an older daughter—a then 2-year-old in daycare—and I often shared my can of seltzer with her. Combined, those things put me at the highest possible CMV risk. I had no idea.

I instantly knew in my bones that CMV had caused my baby’s hearing loss. I was devastated that nobody had ever mentioned CMV to me—neither during any one of my 31 OB appointments, or 19 ultrasounds. Nothing in the baby books I read before and during pregnancy. Nobody, anywhere, ever.

It took another month to see an infectious disease doctor at the children’s hospital and to get the newborn blood spot from the state. A comically ridiculous month of an utterly failed attempt at an at-home newborn urine sample, finding a fax machine to fax the request for the newborn blood spot to the state, driving the blood spot an hour away to get it to the lab before closing for a quick turnaround so that Greta could start anti-viral treatment before the looming 3 month eligibility deadline, and finding a pediatric ENT who knew that CMV can cause unilateral hearing loss. All with the lingering thought that both of my newborn daughters may never sit or walk, never mind hear or talk because of a common virus nobody mentioned to me.

There were bright spots during that month like Facebook groups of parents who had been there before and could tell me what to expect, shared medical studies, and a conversation with a specialist in deafness who talked about how both she and her son loved their cochlear implants and enjoyed playing music. It was that conversation that cemented my decision to give Greta a cochlear implant. It’s my job as a parent to give her every opportunity I can.

Greta received her cochlear implant two weeks after her first birthday. The surgery and recovery went well—she was at the playground and on a swing just 48 hours after surgery!

A year after her implantation, Greta’s audiologist noticed mild hearing loss in her other ear, and Greta now wears a hearing aid on her contralateral ear. Her identical twin Elise shows no sign of hearing loss, although she is tested regularly. CMV is truly a random disease.

Greta is now three and can run, sing, and speak. With the help of her cochlear implant and speech therapy, Greta never had a language delay although she continues with speech therapy to help with articulation. She is an amazing example of the benefits of early implantation for kids with single sided deafness, and I hope all children are offered the same opportunities she has had.
Cochlear Implants
Designed for Your Patients

Take surgical planning and electrode selection to a new level.

Only MED-EL offers OTOPLAN—an innovative software providing you with detailed, precise anatomical and audiological information for preoperative and postoperative analyses.

With OTOPLAN:

✅ Compare different electrode arrays
✅ Identify each electrode contact
✅ Get your patient as close as possible to natural hearing

After surgery, OTOPLAN supports Anatomy-Based Fitting with image-based data that informs the customization of your patient’s map settings based on the exact location of each electrode in your patient’s ear.

Learn more about OTOPLAN: go.medel.com/ACIA