CICADA BUZZ.



AUSTRALIA DAY HONOURS

Associate Professor Jim Patrick AO MSc DEng(hc) FTSE FIE Aust CPE

Associate Professor Patrick was awarded The Order of Australia for Distinguished Service to Science through the development of cochlear Implant technology; to biomedical research and engineering; and to education and professional associations.

Jim is Senior Vice President and Chief Scientist at Cochlear Limited and has played a leading role in the development of the COCHLEAR IMPLANT since joining Professor Graeme Clark as a development engineer in 1975.

Jim worked closely with Professor Clark and his team, contributing to the design and construction of the implantable stimulation and electrode array, later becoming Project Manager. Jim moved to Sydney in 1981 to be a founding member of Cochlear Limited (then a division of Nucleus Limited) when the commercial development of the Cochlear Implant project commenced.

Today, as Cochlear Limited Chief Scientist, Jim has oversight of Cochlear's global research portfolio. He has held a number of senior management positions at Cochlear since 1981, and is also an Associate Professor at the department of Otolaryngology at the University of Melbourne and Adjunct Professor at both the La Trobe and Macquarie Universities. He is a member of several Advisory Boards.

Jim Patrick has supported and encouraged the development of CICADA since our incorporation in 1984. We thank him for his ongoing support and congratulate him on his Australia Day Honour.



Young Australian of the Year 2015

Drisana Levitzke-Gray - Deaf advocate

The fifth generation in her family to be born deaf, Drisana Levitzke-Gray, is dedicated to helping other deaf people and advocating their human rights. Born with moderate hearing loss into a family with deaf parents, a deaf brother and a deaf extended family, Drisana cherishes her first language, Auslan. She promotes the deaf community as one without borders and one of rich language, culture, history and traditions.

As the only Australian selected to attend the Frontrunners international deaf youth leadership course in 2012 and 2013, Drisana worked with communities in Europe and Samoa to expand leadership capacity and human rights understanding of deaf youth.

In 2014, Drisana became the first deaf Auslan user to fulfil her civic duty as a juror. Drisana is the embodiment of the concept of 'deaf gain', not 'hearing loss', inspiring the deaf community, encouraging others to accept diversity and promoting a positive image of deafness which says loudly and proudly: "it is OK to be deaf".





State CICADA Associations

New South Wales

CICADA AUSTRALIA INC.

Secretary: Judy Cassell PO Box 5028 South Turramurra NSW 2074 Email: judycassell@cicada.org.au

Queensland

CICADA QUEENSLAND

Secretary: Shirley Edwards 85 Crotona Rd Capalaba QLD 4157 Ph/Fax: (07) 3824 5003 Email: lee14@tpg.com.au

South Australia

CICADA SOUTH AUSTRALIA

PO Box 415 Angaston SA 5353 Email: mailadmin@cicadasa.org.au

Western Australia

CICADA CLUB W.A. INC.

Coordinator: Lynette Fleming 33 Framfield Way Balga WA 6061 Phone: (08) 9349 7712 Fax: (08) 9349 9763

Northern Territory

CICADA DARWIN

Coordinator Chris Blackham-Davison Email: Deafncrazy@gmail.com SMS: 0427 897 170

ACT

CICADA ACT INC

Secretary: Renuka Raghuraman Email: stargirl788@hotmail.com

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Or our Facebook page Cicada Australia Inc.
Darwin friends now have their own
Facebook page Cicada Northern Territory

If you would prefer to receive this newsletter by email, please send your details to suewalters@cicada.org.au

Donations over \$2 to CICADA are tax-deductible.

CICADA Australia Inc. thanks Cochlear Ltd. for supporting the design, printing and distribution of this newsletter.

From the President

CICADA AGM 2014



As you know, CICADA celebrates 30 years this year, since our inaugural meeting in 1984. We have been officially incorporated since 1993. Our main activities as a group are to advocate for implant recipients and to inform people about all aspects of living with a CI. By having social gatherings we can share our experiences and each other's company! We also do try to provide interesting guest speakers and showcase new technology.

Our strengths are, I think, that we provide a friendly meeting place where all are welcome. For people who are considering a CI, we can provide first hand information from various implant users. With the benefit of our own experience, we can help recipients make the most of their hearing with tips for using the phone or hearing loops etc.

At Gladesville, CICADA is very fortunate to have the use of the SCIC Facilities, for which I am grateful. In return, CICADA supports SCIC in whatever ways we can. SCIC moved into the Gladesville buildings in 1996-7. Prior to this, we held CICADA BBQ's all over Sydney, from Scotland Island to Lugarno, at different public parks and held several Christmas Parties at St Joseph's college Hunters Hill.

Alan Jones first proposed the idea of a club room in 1998. Permission to use our existing Club Room was granted in 2005 after many discussions with the Gladesville hospital site manager for a suitable space that we could use. During this time, Chrissy Boyce secured a generous donation from entrepreneur Dick Smith, who reportedly said on radio that the CI was one of the most exciting inventions of our time!! (We agree!!). With these funds Chrissy and John purchased our furniture, BBQ and kitchen equipment that we use for our events.

Shirley Hanke, in the year 2000, proposed that SCIC provide a "mobile" audiology service to

clients that lived outside of Sydney and had difficulty getting to appointments. Shirley pushed consistently for this and Max and Isobel Lindsay started up a Newcastle support group and actively raised funds to help. In 2002, SCIC provided their first "Outreach" visit to Newcastle. CICADA later provided funds for 2 laptop computers to assist with the expansion of the Outreach service. SCIC still provides regular Outreach to regional areas that do not have their own clinic. In more recent times, CICADA contributed to the audiobook library that is used for listening practice and rehabilitation, particularly by new recipients.

This year, Kath Westbrook brought up the issue of safer access to the Conference Room and made a personal donation to this effect. CICADA liaised with SCIC management and contributed to the installation of the railings that are now in place at the entranceways and toilets.

In 2008, Alan Jones proposed that CICADA commission a biography of Professor Gibson, to detail the great contribution he has made to CI's in Australia. Tina Allen has been researching and writing this book and we hope to launch the book for Hearing Awareness Week 2015 as CICADA's tribute to Bill Gibson.

I'd like to thank those of our members who have donated prizes for our raffles. Sally Elks, Lorna Collins, Annette Biddlecombe and Kerry Van Der Heyden. Also to those who donate books for our fantastic second hand book store. This was Judy Cassell's idea and is a great resource for all our bibliophiles. It also generates funds to help us do our job!

Our WEBSITE needs input from members to augment the information available on it. Your personal stories, good or bad, are always welcome and you can remain anonymous if you choose. We also would welcome ANY feedback on the look and functionality of the website, so please do provide relevant comments. THE CALENDAR is a very useful tool on the website. WE encourage anyone to contact the webmistress, or myself, if they are having a gathering for implant recipients anywhere in Australia. In this way, if you are travelling, you might want to join in and meet recipients from other towns or states

ILLAWARRA CICADA, under the careful guidance of Bob Ross, continues to attract new visitors. Bob and his helpers hold BBQ's every 2 months and they are a good solid group, supporting each other in the South Coast region. I was introduced to the Illawarra Live Steamers at their BBQ in October 2014. A beautiful setting at North Wollongong, where volunteer steam train enthusiasts have set up their own scale-model railway, complete with a station and ride-on trains. It is great fun,

not just for the kids, as adults can ride on the trains too. Many thanks to Bob and friends for creating that great sense of belonging amongst the group.

WESTERN SYDNEY CICADA has about 3 Sunday BBQ's each year and a great core bunch of helpers. Our thanks go to Judy and Kel Tutty, Geoff Letford, Marg and Sean Sewell for their consistent efforts in Western Sydney. They started regular morning teas in March this year, first Tuesday of the month, using the new Penrith SCIC as the venue. This works well for the audiologists at the Penrith centre, who can recommend to clients that they pop in to meet and greet some experienced recipients.

With the merging of SCIC and RIDBC, there is scope for events to be held at the North Rocks school or some of their other locations. We will be discussing this with Chris Rehn and possibly in 2015 may hold some events at North Rocks.

LISMORE District have initiated a support group after the first gathering in 2014 after Easter. The Lismore SCIC proposed the event, but locals are keen to establish support groups in the area. They are all spread out over some hundreds of kilometres, so may end up with a few small groups rather than one large one. So we will do what we can to support them in their endeavours.

Our YOUNG ADULTS GROUP held a few gatherings this year. We are hoping that we can grow this group to be good support for each other and other young adults who come into the CI program.

Sydney CICADA will continue our BBQ and Morning Teas next year. We always have a good time and are on the lookout for interesting presentations. We have come a long way since the early days and enjoy the strong friendships that have developed from working together.



Some members of the Young Adults Group

CHRIS REHN

Historical Perspectives and the Future of Hearing Services in Australia



Chris Rehn, Chief Executive of the Royal Institute for Deaf and Blind Children, presented at the CICADA AGM November 2014, some facts and opinions on the state of play and the future of the hearing environment in Australia.

Chris began his career as a nurse, moving into Public Health administration, then into the Private Hospital sector and accounting before starting as General Manager of the Children's Cochlear Implant Centre (CCIC) in 1996. 17 implant surgeries were performed that year with the CCIC established as a joint venture between the Children's Hospital Westmead and Sydney University. Chris worked closely with Professor Bill Gibson to build on Bill's vision for the future of paediatric cochlear implants, of equitable care and clients-before-profit.

In 1999, the Royal Prince Alfred Hospital adult cochlear implant program relocated to the Gladesville site. Over the next few years the 2 programs were integrated and Outreach services were provided to both children and adults in regional areas. This was the start of Australia's most comprehensive CI program, which in 2001 became the Sydney Cochlear Implant Centre.

In 2003 SCIC services were provided at the RIDBC Tingira Centre in Newcastle, then as numbers grew, an SCIC clinic was established at The Junction. Canberra SCIC was officially launched in 2007, Gosford and Lismore in 2010. Rob McLeod took on the position of General Manager at SCIC in 2010 and worked to establish the Penrith centre that opened in 2013. Also in 2003 the Matilda Rose Early Intervention Centre was established for children with cochlear implants and other special needs. This was a joint venture initiated by SCIC with financial assistance from the Carnegie family, but in 2010 was transitioned to an RIDBC/SCIC integrated service.

RIDBC was established in 1860 and is Australia's largest non-government provider of hearing

and vision services. SCIC and RIDBC now utilize shared premises at Nepean, Gosford, Lismore, Macquarie Hearing Hub and Darwin. Both organisations have developed technological resources to deliver their services to remote and rural clients e.g. RIDBC Teleschool across Australia and SCIC Remote mapping to Samoa and rural Australia. The integration of SCIC services within RIBDC combines the best of both organisations and will increase the length and breath of hearing loss service for people of all ages.

The Commonwealth government is looking into selling its Australian Hearing (AH) network; this has raised important issues. AH has a community service obligation to provide free hearing tests and aids, also parts and repairs and upgrades to cochlear implants to those under 26 and those on aged pensions. AH also operates the National Acoustic Laboratory which runs extensive research programs and develops new products to the benefit of all Australians. The integrity of this network is at risk.

Options to split up AH into its various business components and sell them off may maximize the sale price to the government, but who would buy these "fragments" and would they serve us as well as the current government-owned model? PriceWaterhouseCooper are currently doing a scoping study on the issues involved and RIDBC made representations to them in August 2014, arguing that if AH is to be privatized, the primary consideration should be preservation of the intention of the Hearing Services Act ensuring quality services for those in need, rather than profit. Also that accreditation criteria for providers need to be strong.

In research, Australia currently leads the way and the new Australian Hearing Hub brings together AH with other researchers, educators and a host of professionals to extend this leadership. The National Disability Insurance Scheme was proposed to ensure that people with a disability have the support they need to participate as best they can in the community. So will the NDIS fund hearing services if AH is not there to provide?

There are many issues to consider, but the final words from Chris to ALL of us are:

- * Let's put Hearing Health on the agenda as a National Priority
- * Build community awareness and understanding of the impact of hearing loss.
- * Improve access to services across Australia
- * Government should reduce duplication, competitiveness and spend money wisely
- * We need to ACT to drive change and not be passive to the journey; write to local, state and national MP's to voice your opinions

An Article by Alexander Phillips

Guest Speaker at the AGM

I'm Alexander Phillips from Adelaide, South Australia and I'm a proud member of CICADA. I was born profoundly deaf in both ears and received a cochlear implant at 3.5 years of age. Fortunately, I was able to obtain enough language to attend a mainstream school at 5 years of age. I was able to complete high school and attend university where I completed Bachelor and Masters degrees in Economics, Accounting and Finance. On completion of my studies, I was able to secure a job in a national accounting firm specialising in insolvency.

Despite being able to finish mainstream schooling and university with a profound hearing loss, all along something still bothered me. Discrimination of people with hearing impairment was still rife even though we are one of the most fortunate countries in the world. Discrimination is everywhere, in social situations, education and in the workplace. Until our policy makers understand the true impacts of hearing impairment they will truly not be able to respond appropriately and until they do so discrimination will remain. I felt the need to do something! Luckily an opportunity came up to join the Board of Deafness Forum of Australia and with CICADA's support I was able to secure a position on the Board.

Deafness Forum of Australia is the national representative of all Australians who have

hearing impairment, a chronic disorder of the ear, are Deaf or deafblind, and the families that support them. While our resources have historically been restricted, we continue to work hard advising the government on strategic policy development on behalf of the 1 in 6 Australians who have a hearing impairment. We also run well-attended events including the biennial National Deafness Sector Summit, Captioning Awards, Hearing Awareness Week and Libby Harricks Memorial Oration. Until this year we have been mostly funded by a Federal Government grant. Sadly, we received the news from the Department of Social Services just before Christmas that Deafness Forum and a number of other national advocacy organisations would not be funded in 2015. We will seek other sources of funding and find ways to make further savings to maintain our advocacy activities for as long as possible.

During Hearing Awareness Week last year, we launched the Make it Number 10 campaign. Currently, there are 9 areas that have received National Health Priority status. We want Hearing to be the 10th National Health Priority. The campaign will help us bring hearing to the attention of our policy makers, a growing problem that can no longer be ignored. As you would be aware those with cochlear implants are affected by a lack of support in numerous areas of their lives.

One example of inequity is Age and Disability Pensioners who have cochlear implants and are eligible for the Australian Government Hearing Services Program. These people are not provided with replacement speech processors, yet people who use hearing aids are provided with replacements and upgrades as required.

A crucial public asset, Australian Hearing may be sold. The government must be persuaded to ensure that services to vulnerable Australians are maintained or enhanced, and that the research undertaken by the National Acoustic Laboratories continues.

We face a formidable challenge to ensure there is a national voice for the 4 million Australians Deafness Forum represents and we remain passionate to continue with our mission to foster change for Australians who are hearing impaired, Deaf, deafblind, have an ear disorder, and the families that support them.



24th Annual General Meeting of Cicada Australia Inc. November 2014

November's AGM followed the usual pattern, of the AGM meeting followed by guest speakers and BBQ.

The Presidents Report given by **Sue Walters** can be seen on page 2 of this issue. Chris Boyce followed with the Treasurers Report, with copies of the audited financial report available to the members present.

Office Bearers for 2015

President Sue Walters
Secretary Judy Cassell
Treasurer Chris Boyce
Public Officer Karen Cooper
Anne Dernow

Alan Jones Anne Cecilia Kramar Neville Lockhart The main guest speaker Chris Rehn, CE of RIBDC, spoke on The Future of Hearing Services in Australia. An overview of his presentation is in this copy of the Buzz.

The supporting guest speaker Alex Phillips, visiting from Adelaide, was born profoundly deaf in both ears and had his CI 23 years ago. He is a Cicada member as well as being on the board of Deafness Forum. He is passionate about raising awareness of issues relating to hearing issues and in particular advocating the Make it No 10 campaign. Alex has kindly written an article for this issue of the Buzz.

The Cicada **Annual Raffle was** drawn after the AGM. Congratulations to the winners

Allen Stewart - First Prize \$500 Dorothy Johnston - Second Prize \$200 Kath Westbrook - Third Prize \$100 Thanks to Chris and John Boyce who organize the raffle each year, to those who support Cicada by purchasing tickets and those who make a donation in lieu of buying tickets. Your support is greatly appreciated.



Workers Alan Jones John Boyce and Jim Bootl

Cicada Functions at Gladesville

BBQ's will be held on

15th March, 24th May,

6th September, 1st November – AGM.

Details for each of the gatherings will be sent prior to the event. A flyer, detailing our first BBQ of the year on the 15th March, will be included with this issue of the Buzz.

These days continue to be very popular with our members, and the committee works hard to find a selection of interesting and relevant speakers for each occasion. If you have any suggestions of a suitable guest speaker, please let one of the committee members know.



Morning Teas and Birthdays

The following are the dates for morning teas for 2015.

5th February 5th March
7th May 4th June
2nd July 6th August
3rd September 1st October

Please note there will be no morning tea in **April 2015** as it coincides with the beginning of the Easter period.

Information can also be checked on the Cicada Website www.cicada.org.au or by contacting the secretary, Judy Cassell judycassell@cicada.org.au



NSW Support Groups

Cicada Illawarra

Current dates set for Picnics in the Park for 2015

Sunday 22nd February
Sunday 26th April
Sunday 28th June
Sunday 30th August
Sunday 25th October
Sunday 6th December
Sunday 27th Steamers
Sunday 25th October
Sunday 6th December
Sunday 27th Steamers
Shellharbour Pool Xmas Party

From 10:30am till 3.00pm

Bob Ross, after a number of years coordinating the Illawarra group is stepping down. Bob writes ... "Well, its with enormous joy that I wish to inform you all, that **David Romanowski** has 'stepped up' and intends to carry on the Coordinators duties with the Illawarra Cicada CI Support Group, starting with the 2nd event in April at Shellharbour. After he assists me with the BBQ in February, a decision will be made in regards to it (BBQ) being used into the future."

A great vote of thanks to Bob for his tireless work and good humour over the last few years as he has grown the Illawarra group.

Please contact **Bob Ross** for further information

Mobile: 0418 630 466

Email: rossybikein@gmail.com



Lismore Support Group

Sheliya Van Buggenum is in the throes of developing a support group in the Lismore region. If you would like to find out more about this contact details are below.

Sheliya Van Buggenum meerschaumvale@yahoo.com





Newcastle

For information about this group contact

MaryAnn ama03220@bigpond.net.au OR Mobile 0438 461 659

Karen kaz_dempsey@hotmail.com
OR Mobile 0402 072 074

Western Sydney

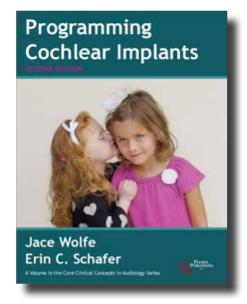
Co-coordinator: Judy Tutty Mobile: 0437049452

Email: westernsydneycicada@hotmail.com Facebook: facebook.com/westsydneycicada

Books to Read

Programming Cochlear Implants is Back in a Revised Second Edition

Nov 2014 Audiology Online



Plural Publishing has just published the second edition of this book – a volume in the Core Clinical Concepts in Audiology Series. With current information on cochlear implant technology, Programming Cochlear Implants is a valuable guide for clinicians providing services to cochlear implant users or as a teaching tool for graduate-level students. The book introduces the basics of cochlear implant hardware and programming and continues through advanced programming techniques, with manufacturer-specific information and case studies. More details will be available on the CICADA website

Emerging Issues in Cochlear Implantation

Oct 2014 Hearing Loss Association of America

The American Cochlear Implant Alliance has just published their proceedings from its first symposium. The proceedings are intended to be a general resource for anyone in hearing health care—not just cochlear implant clinicians. Consumers and parents will find it to be accessible and interesting reading. More details will be available on the CICADA website.

Cochlear Institute with Middle East focus opens

Nov 2014 sbs.com.au



Surgeons from around the world have started traveling to Australia for training at a new institute specialising in restoring hearing with cochlear implants. The Cochlear Clinical Skills Institute (CCSI) opened its doors, hosting surgeons from the Middle East, including Egypt and Saudi Arabia. Dr Ibrahim Shami from the King Fahad Medical Centre in Saudi Arabia is one of three Saudi specialists starting the training. In Saudi Arabia 13 centres are currently doing about 1,000 operations a year but with 3000 new cases of deafness every year, doctors can't keep up. Cochlear implant technology was developed in Australia more than 30 years ago; innovations in the surgical procedure means it now only takes about two hours to complete. "This is in important training hub for doctors all over the world because you come close the device itself and you learn how to insert the different types of electrode in the ear, "Egypt's Ain Shams University Ear Specialist Professor Hassan Wahba said. He says the new lab at Macquarie University has much-needed cutting edge equipment that uses video scopes, which means that while visiting surgeons practice their technique in Sydney, their colleagues at hospitals around the world can watch it live.

Cochlear implants, technology and vaccinations diminish use of Australian sign language

November 2014 Sydney Morning Herald Technology

Karli Dettman, a deaf yoga teacher and therapist in her late 40s, could have a cochlear implant but doesn't want one.



At home, she uses Auslan – Australian sign language - to communicate with her deaf husband Simon and her three young hearing children. "We are happy with our language and don't feel disabled." If her children had been deaf, she wouldn't have chosen a cochlear implant for them, either, "If I have an operation it will make me feel I'm not normal and I need to be fixed. I wouldn't want my 'deaf' children to feel this way. "She's in a minority - SCIC chief executive Robert McLeod estimates "possibly in excess of 90 per cent" of Australian children born profoundly deaf are implanted. About 98 per cent of Australian newborns are tested for hearing difficulties. And there is a vaccine for rubella, a disease which caused a significant rise in the number of deaf people in the epidemics of 1944-48 and 1965-70. Plus IVF technology means foetuses can be screened for "deaf genes".

Professor Trevor Johnston helped compile the Auslan dictionary; he believes Auslan could be facing a demographic crisis. Improved hearing aid technology and cochlear implants mean more people who would have once used Auslan are able to function effectively using speech and hearing alone. Tablets and apps, which can help with vocabulary, sentence building and social interaction, are becoming more popular. Predictions are very difficult ... but it looks as if the population of deaf people who use sign language will continue to decrease, so there will be a time in the next 50 years where the deaf community may not exist," Johnston says. He has called that possibility of Auslan's disappearance "an unambiguous and linguistic tragedy."

However, apps such as Skype and Facetime are offering a path for Auslan to continue in a way that looked unlikely even a decade ago. Younger deaf people or their parents and friends tell Johnston they're using YouTube and Skype a lot. So signing could continue in a global virtual community. "You may have very few people in Australia but in the rest of the world there's going to be tens or hundreds of thousands of people using another sign language which deaf people will slot into." That's already happening with American Sign Language, which Johnston says is becoming a second language for some Australian signers, just as English is a worldwide lingua franca.

Awareness of cochlear implants remains low

Jan 2015 EnidNews.com Oklahoma

An estimated 5 percent of those who would benefit from a cochlear implant actually are getting implants, according to Cochlear Americas Clinical Territory Manager Jessica Ballard. "A lot of that is because of the fact that people just don't know about it, they don't understand who's a candidate and who's not, but also access," she said. There are many adults out there who have had progressive hearing loss, possibly for many years, who have reached a point where they no longer are benefiting from traditional hearing aids. "Yet, they don't know about some of the other options that are available to them," Ballard said, adding they also often do not know the implant procedure is covered by insurance.

Melinda Vernon is rolling up the world triathlon rankings

Nov 2014 Penrith Press



Deaf Athlete Melinda Vernon has risen from a rank in the 300s to 92nd in the world after a stellar triathlon season overseas. This was the 29-year-old from Springwood's first season as a pro triathlete. "It's been a challenging first year being away from home for a long period because I am a family-oriented person, said Vernon, but the travelling and racing was a great and valuable learning experience."

Vernon previously competed in marathons and other long distance running events before making the switch to triathlons. "I was excited when I achieved my first podium (third) in Devonport in March. It was my first real outing as a pro triathlete and to achieve that on official

debut was a nice feeling. "Also my second place at the Geneva European Cup was a surprise bonus, as I had a bike accident during the race, but got back on to finish and run through the field. I didn't know I was coming second until I was 500m from the finish!"

Melinda had to end her season early after a painful Achilles forced her to pull out of the World Cup. "I will be out for a while but I am taking the time to treat it properly so it can be prevented for the future," she said. Being a cochlear implant recipient, Melinda is an active member of the Cochlear Awareness Network. Cochlear is also one of her major sponsors, which has assisted her greatly with funding for overseas travel, competing costs and training equipment.

A little Darwin girl will be able to hear through new technology after being born deaf

Nov 2014 NT News



Abigail Loganathan was born profoundly deaf – but thanks to modern technology she has been given the gift of hearing. HearLab is a tool developed by Australian Hearing's research department and measures changes in brainwave patterns to more precisely read a baby's response to sound. At Australian Hearing Darwin, Abigail was the first to use the new HearLab test procedure.

Australian Hearing Darwin boss John Anderson said HearLab was an exciting step in the early intervention of children with hearing loss. "In Abigail's case, HearLab allowed us to gain a more accurate and objective measure of Abigail's hearing, without the need for her to take part in any behavioural testing. We discovered that she is profoundly deaf and the best form of treatment for her hearing loss is the cochlear implant."

Technology talk

MRIs and cochlear implants

Nov 2014 Reuters Health, New York

More than 300,000 people worldwide now have a cochlear implant. "There have been several reports of adverse events, such as magnet displacement and polarity changes, following MRI in patients with cochlear implants," said Dr. Jae Young Choi at Yonsei University in Seoul, South Korea. Some implants have removable magnets, in which case it should be removed. Other patients should use head dressings while in the magnetic machine.

Her team reviewed the medical records of 18 patients with cochlear implants who had MRIs between 2003 and 2014, including 12 brain scans and 18 body scans. Some patients had multiple scans. Thirteen of the 18 patients made it through their MRIs without complications. Five people could not complete their scans due to pain, one experiencing magnet displacement and another requiring surgery for magnet removal and reinsertion. "If the magnet is displaced, it can be easily replaced by surgery under local anesthesia," Choi said. Even with protective bandages, some patients felt significant pain. The three patients with the most serious side effects of the scan did not appear to have damaged hearing performance afterwards.

Many doctors think that as long as the patient is not injured, the MRI can be performed safely and is acceptable, according to Dr. Emanuel Kanal of the department of radiology at the University of Pittsburgh Medical Center, who wrote an editorial accompanying the study. "The problem is that the physician may not recognize or be aware of pain issues, Kanal said, because 99.9 percent of MRIs involve no pain". Sometimes, even if it is painful, it is still appropriate for the patient to be scanned, but doctors and patients should still be aware of the possibility, he said.

(See also Faye Yarroll's MRI notes on CICADA website)

Cochlear implantation in patients with Meniere's disease

Jan 2015 Maney Online Abstract for 10th European Symposium April 2015 State of the Art Cochlear Implants

Few studies have addressed the benefits of cochlear implantation for the small group of

patients with bilateral, end-stage Meniere's disease, or unilateral disease with contralateral hearing loss from another cause. This retrospective study evaluates the effectiveness and post-operative performance in these Meniere's disease patients and discusses these findings relative to other post-lingually deafened adults. Among 456 adults who received cochlear implants, eight (1.7%) patients were identified with Meniere's disease who met clinical indications for implantation along with a control group of seven non-Meniere's patients of comparable age and deafness. Data gathered included demographics, auditory and vestibular symptoms pre-implantation, and clinical course after implantation, including audiometric scores and audiologic evaluations. A strong likelihood was found that CIs did benefit the subset of Meniere's patients with severe to profound sensorineural hearing loss. Fluctuations in hearing sensitivity can often be resolved by subsequent reprogramming.

Pneumococcal Vaccination to Protect Cochlear Implant Patients

Jan 2015 American Academy of Otolaryngology

People with cochlear implants are at increased risk for pneumococcal meningitis. Despite the highly respected US Centre for Disease Control (CDC) recommendations that all cochlear implant patients receive pneumococcal vaccination, many patients remain unvaccinated. The American Academy of Otolaryngology—Head and Neck Surgery (AAO-HNS), in coordination with the CDC and FDA, has now begun a campaign to help raise awareness about the importance of pneumococcal vaccinations, and that the "Pneumo Shot" is recommended by CDC for all patients who have, or will receive cochlear implants.

New but narrow window to treat tinnitus

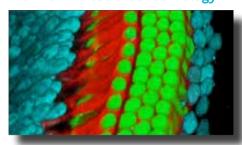
Nov 2014 Science Network Western Australia

WA Neuroscientists have discovered that tinnitus may be treatable with furosemide, a drug that reduces cross-talk between the cochlea and the brain. Tinnitus patients 'hear' distinct tones in the absence of real sounds, a perceptual phenomenon that detrimentally affects their concentration, sleep and mental wellbeing. The experience of tinnitus has been linked to spontaneous firing of the auditory nerve cells, a hyperactivity in the brain observed

after hearing loss. Professor Helmy Mulders of UWA's Auditory Laboratory investigated the efficacy of treating tinnitus in animals using furosemide, a diuretic drug usually prescribed to reduce swelling and water retention. She found that single as well as repetitive use of furosemide reduced hyperactivity in the auditory nerve and midbrain, interfering with neurotransmitter release from the ear's inner hair cells to the auditory nerves. "It strengthens our argument that the hyperactivity is somehow involved in the generation of tinnitus." The research suggests furosemide is only therapeutically effective in the first six weeks after hearing loss, when auditory neurons appear hyper-excitable. Prof Mulders will soon start a proof-of-principle trial with Prof Peter Friedland from UWA's Ear Sciences Centre to test the furosemide effect in volunteer patients with tinnitus.

'Supporting' Ear Cells Hold Potential in Hearing Loss

Nov 2014 Bioscience Technology



This microscopic view of cells deep within the ear of a newborn mouse show in red and blue the supporting cells that surround the hair cells (green) that send sound signals to the brain. New research shows that the supporting cells can regenerate if damaged in the first days of life, allowing hearing to develop normally. This gives new clues for potential ways to restore hearing.

There's a cast of characters deep inside your ears- many kinds of tiny cells working together to allow you to hear. The lead actors, called hair cells, play the crucial role in carrying sound signals to the brain. But new research puts the spotlight on some of the ear's supporting actors— and their understudies. Researchers from the University of Michigan and their colleagues report on these cells, fittingly called supporting cells. They show that damage to the supporting cells in the mature mouse results in the loss of hair cells and profound deafness.

But the big surprise was that if supporting cells are lost in the newborn mouse, the ear rapidly regenerates new supporting cells—resulting in complete preservation of hearing. This resulted from cells in an adjacent structure moving in and transforming into full-fledged supporting cells

It was as if a supporting actor couldn't perform, and his young understudy stepped in suddenly to carry on the performance and support the lead actor. The finding not only shows that deafness can result from loss of supporting cells, but also a previously unknown ability to regenerate supporting cells that's present only for a few days after birth in the mice. If scientists can determine what's going on inside these cells, they might be able to harness it to find new approaches to regenerating auditory cells and restoring hearing in humans.

Hearing Loss Linked to Accelerated Brain Tissue Loss

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Although the brain becomes smaller with age, the shrinkage seems to be fast-tracked in older adults with hearing loss, according to researchers from Johns Hopkins and the National Institute on Aging. The findings add to a growing list of health consequences associated with hearing loss, including increased risk of dementia, falls, hospitalizations, and diminished physical and mental health overall. Dr Frank Lin and his colleagues used information from the ongoing Baltimore Longitudinal Study of Aging to compare brain changes over time between adults with normal hearing and adults with impaired hearing.

That overall study started in 1958 to track various health factors in thousands of men and women. As part of that study, 126 participants underwent yearly magnetic resonance imaging (MRI) to track brain changes for up to 10 years. Each also had complete physicals at the time of the first MRI in 1994, including hearing tests. At the starting point, 75 had normal hearing, and 51 had impaired hearing, with at least a 25-decibel loss. After analyzing their MRIs over the following years, Lin says those participants whose hearing was already impaired had accelerated rates of brain atrophy compared to those with normal hearing.

Overall, those with impaired hearing lost more than an additional cubic centimeter of brain tissue each year. Those with impaired hearing also had significantly more shrinkage in particular regions, including the superior, middle and inferior temporal gyri, brain structures responsible for processing sound and speech. The middle and inferior temporal gyri also play roles in memory and sensory integration and have been shown to be involved in the early stages of mild cognitive impairment and Alzheimer's disease. "Our results suggest that hearing loss could be another 'hit' on the brain in many ways," Lin explains. The study also gives some urgency to treating hearing loss rather than ignoring it. "If you want to address hearing loss well, Lin says, "you want to do it sooner rather than later".