

ReSound

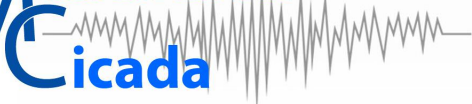
For people with Cochlear Implants

Autumn 2023

Issue 79



Chatsworth House in Derbyshire

Manchester
Cicada  a charity supporting implant patients

This newsletter has been produced on behalf of the Manchester CICADA Charity

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Editorial

Welcome to the Autumn edition of Resound for 2023.

In this edition we are finally able to report more on the social side of the club with the latest events that have happened recently.

We have gradually restarted the schedule after the break of the past few years and it has also been very encouraging to meet up with new members at these.

Going forward we will be publishing an new list of event ideas for the coming year and as ever if you have an idea for a meet up then feel free to get in touch. Just email: secretary@manchestercicada.org.uk or write to the contact address on the back page of the magazine.

After the last issue dealing with accidents and treatments we are pleased to hear from John himself now he has recovered and is back home in 'sunny Buxton'

We recently met up at the MRI implant Centre for an informal chat with a prospective CI patient who was there for

his pre-op chat with the staff on the details of the forthcoming procedure. It was a good opportunity to get to know the patient and it followed the lines of the pre-implant meetings we used to have at the clinic before Covid arrived.

Do visit our website in between issues of Resound as we have regular updates on news, events and links to many helpful websites and organisations.

The link is:

www.manchestercicada.org.uk



The next issue of Resound will be early in the New Year so from all



of the EC we wish you a merry Christmas and a happy New Year

We hope you find this issue of some help and if you've any comments, or stories to send along please let me know.

Kevin Williams - Editor

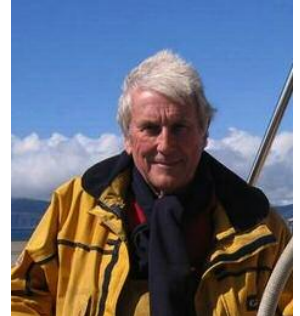
CHRISTMAS DAY! EH? CHRISTMAS DAY

by John Newton

Christmas message from our chairman,(sort of)!

When two or three deaf people get together there is a good chance that the talk will turn to background noise and parties.

Advertisers of hearing aids never fail to mention that their most recent hi-tech product will eliminate background noise and let you focus on your conversations. Christmas is inseparable from parties of one sort and another and, unlike most social get togethers also multi-generational, mixing Grandparents, who are a bit deaf with ebullient noisy excited grandchildren. We all have to learn to cope with these events, how do we manage them?



Well, I suspect we all suffer a little. In the extreme we stay away from them entirely. One elderly couple I know book themselves into an upmarket and expensive "Country House Christmas Experience", one only hopes they get value for the substantial cost.

Personally, although I love the family get togethers, seeing cousins, new grand nieces and nephews, meeting new spouses and in-laws as well as the closer loved ones. Nevertheless, occasionally I have been tempted to do something completely different, ignore the festival entirely.

How to do that?

Climb a mountain, swim a lake, book a flight (literally) binge watch "The Crown"? On the rare occasions when I've tried that, it has been spectacularly unsuccessful. (read miserable) I once spent the festive day in a Youth Hostel in the Lakes. The food was great and the mountains to climb were just outside the door, what I had failed to take into account was that all the other guests were ebullient family parties, none of them of course known to me!

Well, of course you will say.

So how do we cope? If you have any say at all in how the day unfolds, some formality helps, persuading everyone for example, including the reluctant, to perform, sing a song, recite a poem tell a joke.

I have very fond memories of my Dad insisting, against a chorus of protests in reciting "Twas Christmas Day in the Workhouse" at one Christmas dinner.

It's a narrative poem mostly known for its many comic, and often risqué versions but the real version which Dad recited does tell a very sad story, on this occasion leaving most of the company in tears. Persuading, with difficulty a rather stiff brother in law to "perform" produced a rendition of "I Belong to Glasgow" in a surprisingly authentic Glaswegian accent.

In general though, as I said, we suffer. We try to buttonhole individuals to talk one to one, we miss a lot but are cheered by the general cheer, we remind ourselves that most such conversations do not cover anything important, and, if they do, someone, wife, husband or offspring will tell you the story later.

And of course none of this prevents enjoyment of the food and drink!

Merry Christmas to all our readers!

John Newton

A day out in Cheshire

In a break with tradition we recently made an expedition to deepest Cheshire to visit the Cheshire Falconry Centre with a view to participating in a flying session.

After meeting at the restaurant on site for a bite to eat we made our way down to the Falconry Centre itself. Having been issued with various warnings about not eating on front of the inhabitants, we were introduced to some of the participants in the show who were getting some much needed sunshine.



Having been introduced to the feathered, and non-feathered participants, we made our way down to the display arena in the glorious sunshine and immediately headed for the shade of the trees. The local aerial wildlife obviously knew what was coming and vacated the area so as to avoid becoming an afternoon snack!



Various intrepid individuals then took it in turn to view the inhabitants from closer up making sure to hold the arm out with the glove on!





Although most of the birds we encountered were recognisable as Hawks and Buzzards this one was the Eagle Owl, a huge bird with a grip that caused one of the party to wince at one point!



But the star of the aerial displays was the Harris Hawk who knew so many tricks we lost count and was an absolute master of aerial acrobatics.



You could be forgiven for thinking that this was going to be the performance of an old Anglo Saxon dance, however ...



... streaking across the grass below the radar was our Harris Hawk heading, it would seem, for a full feathered collision with our social gathering!

.. but with a flick and a roll that a Tom Cruise aeroplane would have been proud of and without disturbing one eyelash of the audience ..



He emerged on the other side ready for a treat.

All in all it was an enjoyable and different type of event for CICADA and everyone went home to cool off, hopefully with some good memories and an introduction to two new members of CICADA as well.

New findings pave the way for hearing loss therapies

University of Basel

As we age, many of us will eventually need hearing aids. In some cases, the reason for this may be a signaling pathway that controls auditory sensory cell function and is downregulated with age. Researchers at the University of Basel are uncovering clues.

Hearing loss eventually affects almost everyone: Loud noises or simple aging gradually cause the auditory sensory cells and their synapses in the inner ear to degenerate and die off.

The only treatment option is a hearing aid or, in extreme cases, a cochlear implant.

"In order to develop new therapies, we need to better understand what the auditory sensory cells need for proper function," explains Dr. Maurizio Cortada from the Department of Biomedicine at the University of Basel and University Hospital Basel.

In collaboration with Professor Michael N. Hall's research group at the Biozentrum, Cortada investigated which signaling pathways influence the so-called sensory "hair cells" in the inner ear. In the process, the researchers discovered a central regulator, as they report in the journal *iScience*.

This signaling pathway, known by researchers as the mTORC2-signaling pathway, plays an important role, among other things, for cell growth and the cytoskeleton. The role it plays for the hair cells in the inner ear has not previously been studied. When the researchers removed a central gene of this signaling pathway in the hair cells of the inner ear of

mice, the animals gradually lost their hearing. By the age of twelve weeks, they were completely deaf, the authors report in the study.

Fewer synapses

Closer examination indicated that the sensory hair cells in the inner ear lost their sensors without the mTORC2 signaling pathway: hair cells have protuberances similar to tiny hairs that are important for transducing sound into nerve signals. These "tiny hairs" were shortened, as the researchers determined with the use of electron microscopes. The number of synapses that transmit the signals to the auditory nerve was also reduced.

"From other studies, we know that the production of key proteins in this signaling pathway decreases with age," Cortada explains. There may be a connection to the loss of synapses and the reduced function of the auditory sensory cells in the inner ear that leads to hearing loss with increasing age.

"If this is confirmed, it would be a possible starting point for future therapies," says the researcher. The middle and inner ear, for example, would be readily accessible for locally-administered medications or gene therapies. The results could pave the way for the development of such treatment options.

Upcoming captioned performances in the Manchester area



Around the world in 80 Days
Octagon Bolton
1st December 2023 - 7:30 pm
Captioned by StageText

Hamilton

Manchester Palace Theatre
6th December 2023 - 7:30 pm
Captioned by StageText



Lost and Found
Factory International
21st December 2023 - 3pm
Captioned in-house by Factory International

Hamilton

Manchester Palace Theatre
31st January 2024 - 7:30 pm
Captioned by StageText



MRI Scans and CI Implant users

Handling safety checks in Wales

Pictured above from left: Consultant Neuroradiologist Dr Hannah Khirwadka, Clinical Scientist and Magnetic Resonance Physicist Dr Samantha Telfer, Principal Magnetic Resonance Physicist Maria Yanez Lopez and Superintendent Radiographer Barry Spedding



Fewer patients with medical implants such as pacemakers are experiencing delays or last-minute cancellations of Magnetic Resonance Imaging (MRI) scans thanks to simplified procedures.

Radiographers in Swansea Bay hospitals now have safety information on a wide range of commonly used devices at their fingertips, which means more scans can go ahead as planned even if they only find out a patient has a device when they turn up.

It's vital that precautions are taken with patients who have implants containing a metal component due to the magnetic field generated by the scanner.

Previously, radiographers may have had to delay or cancel the appointment to give them time to track down the make and model of the patient's device and research if it was safe to proceed.

This proved extremely challenging in cases where devices had been fitted many years ago, in a different part of the UK or abroad.

Maria Yanez Lopez from MRI Physics, the department in charge of advising

on scan safety, said new generic policies covering several types of device come into play in those cases where information on implants is not captured before the patient's appointment.

"We can try to check the records but they may be in a hospital in another part of the UK or abroad," she said.

"In one case the radiographer was told the building holding the records had burned down so that information had been lost."

MRI scanners use strong magnetic fields and radio waves to produce detailed images of the inside of the body, which can be used to find out or diagnose what's wrong, plan treatment and check on how well previous treatments have worked.

Staff must be aware if you have something metallic in your body before carrying out the scan as the magnetic field can cause the implant to heat up, move or malfunction.

They can sometimes adjust the machine's settings in line with safety procedures for the device and ensure the scan can go ahead.

As medical science advances, so the number of implants with metal

components increases. They include pacemakers, small electrical devices used to monitor and control an irregular heartbeat, heart valves, implanted cardiac defibrillators, which use electrical shocks to regulate heartbeats, nerve stimulators to treat long-term pain, cochlear implants which help people hear, artificial joints such as hip and knee replacements, gastric bands for weight loss and stents, which open blocked or narrowed blood vessels.

Implants are designated MR Safe, MR Conditional or MR Unsafe by manufacturers.

So far MRI Physics, in conjunction with Morryston Consultant Neuroradiologist Dr Hannah Khirwadkar, have compiled seven generic implant policies, each covering a particular set of implants, particularly those that are considered to present a low safety risk or where risks are typical across implants of that type.

There are also simplified procedures for MR Conditional implants whose conditions for safe scanning are more complex, such as pacemakers and cochlear implants.

Maria, Principal Magnetic Resonance Physicist, said: "With the generic implant policies, we try to review as many implants as possible within a single category and for some of them we managed to get in touch with NHS Wales procurement, so we have the full list of all the ones bought in NHS Wales within a given period.

"We do literature reviews and look through international databases to check if any adverse effects have been reported when scanning people with these implants.

"Then we make a policy for radiographers to follow which is hopefully quick and easy. It tells them what settings they need for the machine.

"It's no longer reliant on them having to go off and find out about the make and model."

Maria said the work is of ever-increasing importance due to the "sea of devices", many of which are in older people who can require urgent investigation work where there's no suitable substitute for an MRI.

She explained that in cases where implants are not covered by a generic policy or procedure, the MRI Physics team will provide a bespoke risk assessment, as part of the so called Off Label Policy.

"What we also see a lot of these days are implants where a part has had to be replaced and that part may come from a different manufacturer to the original device. We call these mix-and-match cases," she said.

"The original manufacturer will then automatically class that device as MR Unsafe and that used to be the end of the line for these patients in terms of getting an MRI scan.

"But now with these procedures we can say what the risk is; low, medium or high and the clinical team will have to weigh up that technical risk against the clinical situation and whether an X-ray or alternative scan could be used.

"Many of these cases can now go ahead to MRI scan, within the framework of our Off Label Policy and informed patient consent."

Swansea Bay's MRI Physics team are the only one in Wales and also

provide services to other health organisations in Wales, where these advances are also having a positive impact.

The generic implant policies were rolled out across Swansea Bay hospitals in September 2021, followed by the Off-Label Policy around a year ago.

Superintendent Radiographer Barry Spedding said patients are now being scanned quicker.

"For example, we took eight device

queries in 48 hours for in patients, which was unprecedented," he said.

"But due to the efficiency of our cardiac physiology team and being able to follow these simplified procedures, we could scan these patients within 48 hours.

"Historically these patients would have waited quite a bit longer or the clinicians would have been forced to opt for alternative, more invasive procedures which quite often had lower diagnostic accuracy."

Lip reading corner



Barbara

In our lipreading classes, we don't just practice lipreading, we pass on information about things that might be helpful.

One of the things we talk about in lipreading sessions is how to make the best of difficult situations. Christmas can be challenging when you have a hearing loss. It's lovely to spend time

with family and friends, but it can be very difficult to follow a conversation, and very tiring. Here's a few tips that we suggest in our class:

- Talk to family members, before Christmas, about what will help you to join in.
- If watching TV is part of the day, request the subtitles are switched on.
- Some extra equipment might be helpful. I have a mini-mic, that can amplify individual speakers.
- Try and arrange where you sit at mealtimes. Sit away from music speakers, and somewhere where you can see everyone's face.
- Make sure the light levels are good. Candlelight makes lipreading very difficult.
- Don't be afraid to ask people to repeat things. Having a buddy can be helpful - someone who will make sure you're following the conversation.
- Find a quiet room for some time out, it can be very tiring.

Above all, have a lovely Christmas, and here's wishing everyone all the best for 2024.

Barbara Hitchins

19.11.23



Allison

Med-EL are holding a webinar which will take place on Tuesday 5th December 6:00 – 6:45pm.

The webinar will be hosted by Will who is a Hearpeers Mentor and he will talk about his hearing journey, being a semi-professional football player and his work to spread awareness of hearing loss in schools and user groups.



The webinar will also include a Q&A Session, where attendees will be able to ask any questions to Will or a clinical specialist.



Hearpeers Mentor Webinar

Brought to you by MED-EL



Will is actively involved with sports institutions around the UK, including the official England football team, dedicating much of his time to spreading hearing loss awareness at schools and user groups.

On this webinar, he will share his hearing journey, which began as an infant when he received his first cochlear implant at the age of 2. He will also discuss the impact it has had on his life and sporting career.

You are invited to join this webinar on **Tuesday 5th December 6:00 – 6:45pm**, which will also include a Q&A session, where attendees will be able to ask any questions to Will or a clinical specialist.



“When playing football in noisy environments, I look for ways to get over that barrier. For example, if a player gets injured, I use that opportunity to speak to my teammates about our performances”



To sign up for this webinar, please **scan the QR code** or visit: surveyMonkey.co.uk/r/MeetTheMentor_Will

New AI noise-canceling headphone technology lets wearers pick which sounds they hear

Researchers have developed deep-learning algorithms that let users pick which sounds filter through their headphones in real time. Either through voice commands or a smartphone app, headphone wearers can select which sounds they want to include from 20 classes, such as sirens, baby cries, speech, vacuum cleaners and bird chirps. (Headphones today, AI in Implants tomorrow? Ed.)

Most anyone who's used noise-cancelling headphones knows that hearing the right noise at the right time can be vital.

Someone might want to erase car horns when working indoors, but not when walking along busy streets. Yet people can't choose what sounds their headphones cancel.

Now, a team led by researchers at the University of Washington has developed deep-learning algorithms that let users pick which sounds filter through their headphones in real time. The team is calling the system "semantic hearing."

Headphones stream captured audio to a connected smartphone, which cancels all environmental sounds. Either through voice commands or a smartphone app, headphone wearers can select which sounds they want to include from 20 classes, such as sirens, baby cries, speech, vacuum cleaners and bird chirps.

Only the selected sounds will be played through the headphones.

The team presented its findings Nov. 1 at UIST '23 in San Francisco. In the future, the researchers plan to release a commercial version of the

system.

"Understanding what a bird sounds like and extracting it from all other sounds in an environment requires real-time intelligence that today's noise canceling headphones haven't achieved," said senior author Shyam Gollakota, a UW professor in the Paul G. Allen School of Computer Science & Engineering. "The challenge is that the sounds headphone wearers hear need to sync with their visual senses. You can't be hearing someone's voice two seconds after they talk to you.

This means the neural algorithms must process sounds in under a hundredth of a second."

Because of this time crunch, the semantic hearing system must process sounds on a device such as a connected smartphone, instead of on more robust cloud servers.

Additionally, because sounds from different directions arrive in people's ears at different times, the system must preserve these delays and other spatial cues so people can still meaningfully perceive sounds in their environment.

Tested in environments such as offices, streets and parks, the system

was able to extract sirens, bird chirps, alarms and other target sounds, while removing all other real-world noise.

When 22 participants rated the system's audio output for the target sound, they said that on average the quality improved compared to the original recording.

In some cases, the system struggled to distinguish between sounds that share many properties, such as vocal music and human speech. The

researchers note that training the models on more real-world data might improve these outcomes.

(Ed Note) CI users have been able to use over the ear headphones for a while but mainly for computer gaming and music. If the cups are large then they work well with CI's and do not cause the feedback that is common with hearing aids. I will do an update in the next issue.

The CICADA runner

Rounding off the year in style.

It's the time of year when the evenings draw in and things get decidedly chilly outside and so some of us turn to other activities to get through the dark days until spring.

Our resident runner for all things charitable has returned to her Thespian roots and will shortly be appearing in 'Puss in Boots' at a The Turnpike Gallery, Leigh from 28th November to 2nd December.

However true to form she'll also be taking part in the 'Santa Dash' in Blackpool, I'm not sure if Reindeers are involved, I'll wait for the photographic evidence to appear in the Sunday papers!



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Notes

We would welcome any feedback or suggestions for events, articles for Resound especially if you have been through a situation and have come through it and have knowledge that might help others.

Either email
secretary@manchestercicada.org.uk

Or write to me at the address below, all submissions are welcome.

CICADA

Website: www.manchestercicada.org.uk

Facebook group: Manchester CICADA club

Secretary direct contact: Text 07533217730

Main contacts for Cicada listed at the bottom of this page.

Manchester Implant Centre

The Richard Ramsden Centre for Auditory Implants, Peter Mount Building, Manchester Royal Infirmary, Oxford Road, Manchester, M13 9WL

Main Contact Details:

Tel: 0161 701 6931 (Appointments)

Tel: 0161 276 8079 (repairs and spares)

* Please check the website regularly for updates on what the clinic are doing in the light of the virus outbreak.

<http://www.manchestercicada.org.uk/implant-clinic/>

National Support organisations

British Tinnitus Association:

<https://www.tinnitus.org.uk/>

Hearing Link:

<https://www.hearinglink.org/>

RNID (Action on Hearing Loss):

<https://www.actiononhearingloss.org.uk/>

Disabled Travel Advice:

<http://www.disabledtraveladvice.co.uk/>

Meniere's Society:

<http://www.menieres.org.uk/>

National Deaf Children's Society:

<http://www.ndcs.org.uk/>

National Association of Deafened People

(NADP): [http:// www.nadp.org.uk/](http://www.nadp.org.uk/)

Equipment Suppliers for Deaf People

Sarabec: <https://www.sarabec.com/>

Connevans: <http://www.connevans.co.uk>

Hearing Link UK: <https://www.hearinglink.org/>

RNID (Action on Hearing Loss):

<https://www.actiononhearingloss.org.uk/>

Accessory help

The accessory help page has links to videos about how to connect your processor to different accessories, such as remote microphones, TV support etc. that may be supplied to you by the implant centre.

Also if anyone is going into hospital and wants one of the Hearing support cards to show staff how you prefer to communicate then please let me know.

If you have printing facilities then the card is in PDF format at this link at the bottom of the page:

<https://www.manchestercicada.org.uk/accessory-help/>

If you need a laminated copy write to me or email at the link below.

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