

Issue 7 | Winter 2016 | University of Southampton Auditory Implant Service

Professional Update

Genevieve Khoury, 20, beat contenders from across the country to win the Cochlear UK & Ireland Graeme Clark Scholarship Award, which recognises students with a hearing loss who have made outstanding achievements.

On being presented with the award, Genevieve said: “I am delighted and extremely grateful to be awarded the Graeme Clark Scholarship. Having cochlear implants has opened up a world of opportunities for me and has allowed me to fulfil my dream of studying medicine. I am very grateful to have had continuous help and support from all my friends, teachers, family and the staff at the University of Southampton Auditory Implant Service.”

Dr Carl Verschuur, Director of the University of Southampton Auditory Implant Service, said: “For over 25 years, the University of Southampton Auditory Implant Service has been enabling people with severe to profound deafness to access the world of sound and all that comes with that. Genevieve should be hugely proud of her achievements and she is a great example of how cochlear implantation transforms lives and

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AIS Plus

Introducing our Private Hearing and Balance Clinic

We provide a range of routine and specialist clinical services to patients of all ages, receiving referrals from the independent (private) sector. The Audiology Clinic provides a range of specialist diagnostic and rehabilitative audio-vestibular services; please contact us for more information. Charges vary depending on the type of treatment undertaken.

Please contact us for further information AIS.Plus@soton.ac.uk

Clinical Activities

Staff at the Hearing and Balance Clinic are able to offer private appointments for:

- All forms of balance and ENG assessment
- Paediatric and adult hearing assessment
- Vestibular rehabilitation
- Tinnitus counselling and rehabilitation

Bone Conduction Hearing Implant News

New processors

New Cochlear Baha Power and Superpower processors have been launched based on the Baha 5 platform. The Baha 5 power processor replaces the BP110 processor and is suitable for bone conduction levels up to 45dB(HL). The Baha 5 super power processor which is head-worn replaces the body-worn Cordelle processor and is suitable for bone conduction levels up to 65dB(HL). (Please bear in mind that in accordance with the new commissioning guidelines for bone conducting hearing implants, the University of Southampton Auditory Implant Service (USAIS) will avoid devices at the upper range of their fitting range as this is unlikely to offer long term benefit to the patient. USAIS will be using the new Baha 5 range of processors with appropriate new patients.) Existing patients will have new models of processor fitted in accordance with our policy of patients having an upgraded processor after 4 years of use. We are looking into options for the use of remote microphone technology with these new processors in educational settings.



Baha 5 Superpower



Baha 5 Power



Baha 5

New Clinical Commissioning Policy for bone conducting hearing implants (BCHI)

This new policy was published in July 2016 by NHS England and is available on their website.

This relates to bone anchored hearing aids and middle ear implants. Some points relevant for referrers are as follows:

- BCHI and middle ear implants (MEI) will only be available to patients for whom conventional air conduction hearing aids (ACHA) are unsuitable or do not provide adequate benefit
- Patients must have hearing loss within the manufacturer's fitting guidelines
- Patients must have stable bone conduction thresholds (≤ 15 dB deterioration in >2 frequencies in a 2 year period)

It would be really helpful if referrers give us information about the reasons why ACHA are unsuitable for the patient and details of any ACHA including CROS or BiCROS devices that the patient has tried for at least 4 weeks. Also, please include with the referral a recent audiogram and audiograms for the last 2 years so that we have evidence that the patient has stable bone conduction thresholds. If you wish to discuss a referral for a Baha or MEI please do not hesitate to get in touch with BCHI Coordinator Sarah Flynn at ais@soton.ac.uk.



USAIS offer a self-funded cochlear implant route as part of the AIS Plus Service

Self-funded Cochlear Implant Service

Early experience of hearing sounds through a cochlear implant

Life has changed significantly since I received my cochlear implant in October 2015, at the age of 77. Having my implant has given me access again to the hearing world.

Prior to my implant I had suffered bilateral progressive hearing loss. It had reached a stage where I was unable to use the telephone, enjoy a visit to a restaurant, take part in committee work or have an impromptu chat with a friend in the street. There were occasions when my mishearing generated misunderstanding and friction over the washing up!

My local Audiologist and I configured my hearing aid curves as best we could. Despite this, my hearing aids increasingly gave less benefit and so I also joined a lip-reading class. A further drop in my hearing prompted me to research cochlear implants and the NICE criteria – my hearing was, frustratingly, just outside the NICE criteria, despite the significant impact my hearing loss was having on my life. A visit to an ENT consultant in my local hospital confirmed this. Further online investigation led me to the self-funded pathway at AIS. A thorough hearing and multi-disciplinary assessment revealed that I met the self-funded pathway criteria. It was a big decision but I took the plunge. Mr Tim Mitchell did the surgery in October 2015.

The ‘switch on’ was done in November 2015. I felt apprehensive as Nicci Campbell (Audiologist and Self-Funded CI Team Lead) placed the coil in position and started tuning the 16 individual electrodes. Would I hear anything? What if the implant had failed? Suddenly, I perceived a distant faint sound ‘out in space somewhere’ which became louder as Nicci increased the levels on her computer. My job was to tell her when it was comfortable – not too loud. Once the individual electrodes were set we went ‘live’. By watching my wife’s lips, I could make out some of what she was saying as if from another planet with tissue

paper in between. My own voice seemed to belong to me but I had to pause to see if it really was me as I sounded as if I had a badly fitting denture! After a bit of acclimatisation, Nicci held a piece of paper in front of her mouth so I could not see her lips and said ‘red’ or ‘yellow’ (one versus 2 syllable words), I could correctly identify them! I caught the eye of my wife who was sitting across the room and we both smiled with delight.

In the first week voices seemed metallic and harsh – a bit like ‘barking foxes’. I was able to hear the rustle of my slippers on the carpet and the water running from the tap; both of these seemed to have little distortion. When Nicci swept through the electrodes at the second appointment I was able hear the different pitches crudely rising and falling. Speech sounded strange in those first few weeks, as if it was ‘pushing at a barrier’ and causing me to miss the first part of the sound which created the ‘barking’ sensation which together with the elevated pitch of voices made it sound as if everyone was telling me off. My own voice sounded higher than I remembered it.

There were further tuning and auditory rehabilitation sessions with Anna Lyford (Hearing Therapist). As it was approaching Christmas time, Anna suggested I try listening to carols through YouTube and so I linked my iPad to my sound processor with Bluetooth. At first the tune of a familiar carol sounded nothing like I knew it to be; notes for me rose when I knew they descended and vice versa. However, after a day or two, by humming the tune I was able, with a lot of effort, to perceive the tune more correctly. I also listened to e-books via my laptop while reading the text from the paper version. Initially, I could not differentiate between male and female voices but this soon changed and I found myself listening to e-books without the text. Voices were losing their metallic edge and

the ‘barrier’ was almost gone. By now it was two months since ‘switch on’ and at Anna’s suggestion I followed IMAP, a music course prepared for implant users by the University of Southampton. It was quite a challenge but there were instruments I could distinguish. I could track rising and falling cadences and had no trouble recognising rhythms - but it also confirmed, as I had been warned, that I will not be able to hear music, as I once did.

There is so much more I could share with you about these exciting five months since ‘switch on’. At this stage I am able to communicate easily and hear others in quiet listening environments and can follow an increasing amount of conversation without looking at the speaker. I am also using the telephone with increasing confidence. I still perceive my wife’s voice as higher in pitch than I know it to be. I cannot understand sudden asides she makes when I am not prepared for her to speak and have no idea of the context; but perhaps I was not too good at that even before my hearing deteriorated! Recently we attended ‘The Last Night of the Proms’ where the audience participation made up for the melodies I missed. I am attending society meetings again using a Bluetooth microphone clipped to the presenter and we have just seen a relay of ‘Giselle’ where the music just supported the ballet sequences, so my music limitations did not matter.

“The past five months have been a tremendous journey. Thanks to the patient and friendly team at the AIS, life is back on track for me, my wife and our family.”

Ian Hobday

Results of cochlear implant remote care project

Dr Helen Cullington, in partnership with University of Southampton Management School and Electronics and Computer Science, along with the University of Nottingham, Cochlear UK and service users. Funded by the Health Foundation.



Around 1,400 people receive a cochlear implant in the UK each year. Patients require lifetime follow-up in order for their implant to be checked and adjusted, and for rehabilitation.

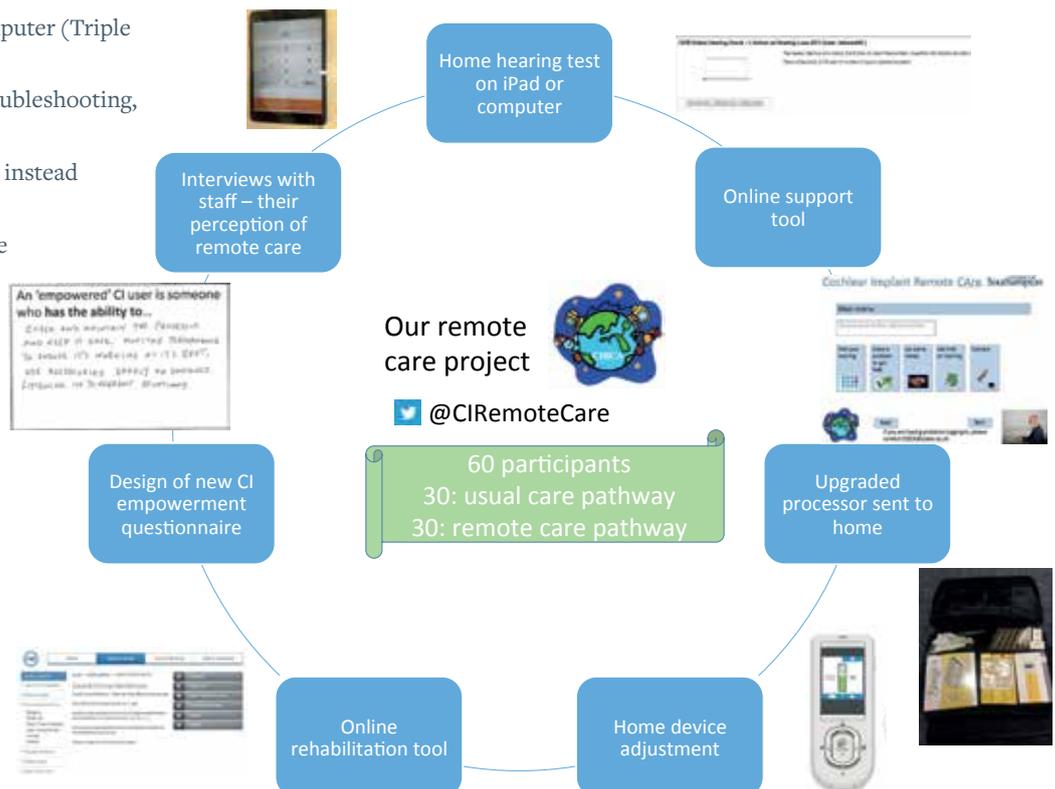
Cochlear implant care is provided at one of 19 specialist centres in the UK, which may be several hours away from the patient's home, involving travelling expense, time off work and family disruption. We completed an innovative project to make this care pathway patient-centred and provide a more efficient service to allow quicker identification of hearing problems. We designed, implemented and evaluated a long-term follow-up pathway for adults with cochlear implants, offering them remote self-monitoring, self-adjustment of devices, and a personalised online intervention package for testing their own hearing at home. The package of care included information, self-rehabilitation, advice, equipment training and troubleshooting. The customised remote control technology allowed people with a certain implant model to adjust their own hearing levels.

We enrolled 60 people using cochlear implants in a clinical trial, and randomised them to either the remote care group or a control group. The control group followed their usual care pathway. The remote care group were given some tools to care for their implant and hearing at home:

- Home hearing test on iPad or computer (Triple Digit Test)
- CIRCA online support tool for troubleshooting, rehab, info etc.
- Upgraded processor sent to home instead of clinic visit (if upgrade due)
- Remote assistant fitting for people with newer Cochlear device - ability to fine tune hearing with implant at home
- Access to additional rehabilitation tool (Advance Bionics SoundSuccess)

The main outcome that interested us was patient empowerment; this is strongly linked to better outcomes in people with long-term conditions. We designed a new measure of empowerment for people with cochlear implants (the CI-EMP) to assess their beliefs, knowledge and skills to care for their own hearing with a cochlear implant.

We found that only the remote care group had a significant increase in their cochlear implant empowerment after using the remote care tools. The hearing test result in clinic improved in the remote care group, although they had not noticed a change. The control group, however, felt their hearing had become slightly worse. This may suggest that the remote care group were more able to take action to keep their hearing stable during the trial.



Stock and Equipment

Advanced Bionics Neptune Processor Batteries

The Neptune processor uses rechargeable AAA batteries and Advanced Bionics have specified to us that only batteries and chargers that are supplied by them should be used in Neptune processors. Their choice of Duracell AAA Rechargeable NiMH 800mAh/1.2V batteries have been shown to provide the optimum performance in the manufacturer's own tests. If patients have had the batteries for a while now and feel as though the length of time that they last has decreased or that the processor is prone to switching off then please let us know and we will be happy to replace these for you.

Returning Processors to USAIS

Please make every effort to return faulty processors to us in the repairs department as soon as the patient's family receive a replacement one from us in the post. One issue that comes up regularly is that people have to be given a processor of a different colour or sometimes even a different model as we don't have the correct one in stock. We only have a limited pool of stock to replace faulty processors and we return all of our faulty processors weekly to the manufacturers for them to be replaced/repared. We rely on you getting the faulty items back to us quickly so that we can then start the process of returning them for repair. When we run out of stock we either have to decide that we can't send out replacements as quickly as we'd like or we purchase new processors at five thousand pounds each – this is money that comes directly from the repairs budget and can't then be spent elsewhere. If you have a faulty processor that has not been returned to USAIS please send it back in as soon as possible so that we can get it repaired.

Daniel in reception



What did the patients think?

This was the first time that people using cochlear implants have been given remote care tools. What they told us about the tools is very important to shape what happens next. Here are some quotes, of patients talking about what they liked about remote care:



Listen to what patients think:
www.bit.do/remote_care

“There are a lot of very interesting features, e.g. rehab and information that I will definitely use in the future”

“I have been using the enhanced controls to adjust my processor as I go along ... The adjustments help me to carry on rather than withdraw from a hearing situation”

“This is great I hope I do not lose this facility after the trial finishes”

Future plans

Many people using cochlear implants would like to have more control of their own care and use tools at home. We are going to design a new long-term care pathway based on the results of this project. We have also had a lot of feedback that parents of children using implants would like to have more tools at home, so we will begin investigating this. Of course we will always provide care in the traditional way at the centre and we realise that remote care is not for everyone. We intend to offer care to people in the way that suits them best.

“The CIRCA software. I chose Using the Telephone as my first goal ... Finally I must say how thrilled I was just to be able to pick up the telephone receiver without outright panic. I haven't lifted a receiver for some 40 years or so”

“I have been altering my implant quite successfully then doing a hearing test”

“First a whopping big thank you for the SoundSuccess. It fits so much with many of the thoughts I've been having.”

Technology update



Stuart Whyte, Educational Audiologist with the East Team, shares a quick update about his additional role as USAIS coordinator for Assistive Listening Technologies (ALT).

USAIS conducts and engages with the latest research because it is essential that up-to-date evidence influences our professional practice. In particular, the feedback we receive from adult users is invaluable because younger users of ALT benefit from their experience.

The recent release of Apple's iPhone 7 gives us a further glimpse of the wireless future. There is no audio jack socket in their latest phone - welcome to the world of streaming! Implant manufacturers are always working on the next generation of technology, so it is important that USAIS keeps up to date with their innovation. Listening devices and the technology or programming strategies that help the devices function can seem complex. Our aim is to refine some of the information on the company websites or their glossy brochures and provide you with a quick visual guide to the latest 'bit of kit'.

As a leading service we will continue to influence development with ALT, work in partnership with other professionals and provide clear guidance for users, develop confidence and enable greater participation in education, work and leisure.



A request for referrers

The Accessible Information Standard (SCCI1605; published under section 250 of the Health and Social Care Act 2012) aims to make sure that people who have a disability or sensory loss get information in a format that they can access and understand, and that they are provided with the communication support that they need. In order to comply with the requirements of the standard, and to ensure our patients receive information in an accessible way from our first contact, we would be very grateful if future referrals to USAIS could

include information about a patient's access and communication needs. This may include the need for an interpreter (BSL or other), written information in a larger font (please specify size if known), or other specific needs. If we are able to gather this information at the point of referral, it will help us to provide more accessible information to all patients from our first point of contact. Thank you in advance for your support!

Campaigning to improve access to auditory implants

Recent work by the Ear Foundation and others has shown that the real need for cochlear implant and other auditory implant technology is not being met, particularly among adults. At USAIS we are doing what we can to improve the situation, in part by contributing to ongoing national campaigns. There are currently a number of linked initiatives aimed at improving awareness of auditory implants among the general public, but also professionals supporting those with hearing impairment, to help increase the proportion of those who could benefit from cochlear implantation to access services. They are also aimed at preparing the way for a possible future review of national candidacy guidelines on cochlear implantation to recognise the strong evidence from many sources that suggests that current candidacy criteria are overly restrictive.

Here are a few things you may be interested to hear about.

- **Adult Cochlear Implant Action Group:** This is a campaigning group whose aim is to improve access to, and awareness of,

auditory implants. The group has made good progress in areas including inclusion of cochlear implants in the new Action Plan on Hearing Loss and campaigning work to make politicians aware of the unmet need around cochlear implants, including the All Party Working Group on Hearing Loss.

- **Closely linked to the Action Group is the BCIG Candidacy Working Group.** This working group recently put together a special supplement of "Cochlear Implants International" which you can access freely on their website. The supplement provides a single document compiling key evidence around candidacy for cochlear implantation which can be used to influence national policy. Watch this space as the BCIG looks to develop a consensus around the main priorities for extending cochlear implant candidacy in the future.
- **Self-funded cochlear implant service for adults at USAIS.** This service is for adults who could benefit from cochlear implantation, but whose hearing falls outside NICE candidacy guidelines, and those who have a single implant funded by the NHS who might be interested in one for

the opposite ear.

- **Education initiatives spearheaded by cochlear implant companies.** This includes additional outreach work via Paula Greenham who has visited some of your departments in the last year or two, and the recent "Life on Mute" roadshow with MED-EL designed to increase awareness of hearing loss more generally.

The above initiatives are specific to auditory implants, but the wider context is the current campaign around access to hearing services more generally.

If you have any questions about the various national campaigns going on at the moment, or would like to contribute, don't hesitate to contact Carl Verschuur via C.A.Verschuur@soton.ac.uk.

The Ear Foundation
Hearing & Communicating in a Technological Era



MED-EL

Training update

Between January 2010 and December 2015 the University of Southampton Auditory Implant Service ran more than 40 training courses for professionals supporting our adult and paediatric patients in schools, colleges, hospitals and other settings. Professionals attending include Teachers of the Deaf, teaching staff, social services, Speech and Language Therapists and Audiologists. Other courses are run for the patients themselves (such as our telephone, accessories and music workshops) or for the parents and wider family of an auditory implant user. The aim of our courses is always to help delegates feel more confident in their knowledge about implants and the wider issues surrounding them. We feel if professionals can get the appropriate training they need this will ultimately benefit our patients experience and outcomes.

We always receive excellent feedback from our training days over the years and prices are set at a very competitive rate, or often free if you are supporting a USAIS patient. Our newest course 'Speech Acoustics and Hearing Loss' attracted a variety of Speech and Language Therapists, one of whom said:

"Thank you for an uplifting and packed day. I feel much more confident and will be re-reading notes for some time to come!"

For further information about the courses we offer please visit our website at www.ais.southampton.ac.uk



The next challenge for our training programme is to produce an on-line training package which will be accessible to help those professionals who, for a variety of reasons, find it difficult to attend courses at our centre. We are currently in the processes of doing this and will be launching a package over the next year.

Finally, we can tailor courses specific to your training needs and this can be an ideal time to update a team on the latest in the field of Auditory Implants. Please feel free to enquire about this further using our email address AIS.Training@soton.ac.uk

Staff update

Welcomes



Sam Bealing

Hello! I'm Sam Bealing and I joined the West Team here at USAIS in January – new year, new beginnings! I am an Educational Audiologist, working as part of the rehab team. I originally started out as a primary school teacher, where I worked with several children with different levels of hearing impairment, before working as an Advisory Teacher for Hearing Impaired Children in Dorset. Being a glutton for punishment I then went back to studying (whilst working) and completed an MSc, and took on the role of Educational Audiologist for the Dorset Hearing Support Service. This meant my work became more clinical and I was involved in the technological side of things, partly through joining the FM Working Group. Since becoming part of the team at USAIS I have met lots of new people as well as working alongside previous colleagues and patients again, but with a new hat on! I am enjoying the new challenges and look forward to seeing and working with many of you in the future.



Liz Parker

Hello. My name is Liz Parker and I joined USAIS in September as a Rehabilitationist in the Central Team. I have been a Teacher of the Deaf for 18 years, working in oral/aural, Total Communication and Sign Bilingual settings. I have worked in Resource Bases in primary and secondary mainstream schools including managing three bases. I have also taught in specialist Schools for the Deaf and been a peripatetic Teacher of the Deaf. I am excited to be joining the fantastic team at USAIS and look forward to meeting many of you in due course!



Melanie Dalley

Hello, my name is Melanie Dalley. I started working at USAIS in June 2016 and am thoroughly enjoying my role as Clinic Secretary for AIS Plus and BCHI. I have previously worked for ENT Consultants and other surgical consultants at the Royal South Hants as Medical Secretary and was a PA for the Director of Nursing for Solent NHS. Prior to that I worked for 10 years at Southampton City Council as Senior Business Support Officer for Children's Services and Learning in multi-disciplinary services spanning education and health for children with special needs, where I worked liaising with paediatricians, Speech and Language Therapists, support workers, GPs and teachers. In my spare time I am a dedicated salsa dancer. I look forward to meeting you.



Mike Niblett

My association with USAIS started in the early 1990's as Management Accountant for ENT at Southampton General Hospital (SGH). Following a change in career direction, I briefly met up again with SOECIC (as it was then known) in the late 2000's this time as a Partnership manager for SGH. After 21 years at SGH I left to take up a position with the local NHS Specialised Commissioning team and after a few months was asked to take on the commissioning contract for... SOECIC! In 2014 I decided to leave the NHS and take a gap year – however part way through I was asked if I might be available to help with the USAIS NHS contracts. At first I was working as a contractor but from October 2016 I became a fully-fledged member of USAIS working two days a week, and look forward to another year of intense negotiating, contract monitoring and helping the wider team in anything that involves contracting. If I'm not in the office, the likelihood is that I'll be at a racetrack, either as a volunteer racemaker or simply as a regular race goer.

Goodbyes



Pauline Cobbold

I am sad to share with you that I will be leaving USAIS at the end of September. It has been an amazing journey through the thirteen years I have worked at the implant centre. I have met so many incredible children and their families and watched them grow and develop their communication skills. I have enjoyed working alongside local professionals, sharing knowledge and skills, and in our expanding multidisciplinary team here at Southampton. I have learnt so much working here. It has been a difficult decision to leave after all this time and I shall miss so many people. However the last time I stopped the world and got off, I trained as a teacher of the deaf... I wonder what fate has got in store for me this time?



Mark Chacksfield

We wish the best of luck to Mark, one of our Audiologists in the East Team, in his new role at Belfast Auditory Implant Centre. Mark's sunny Australian personality will be much missed by patients and staff alike.

Contact us

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www.southampton.ac.uk/ais | @UoS_AIS | AuditoryImplantService

Do you have good news stories or events for our next Newsletter?

Please contact

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