

# Interview

Professor Bill Gibson is currently the Professor in Otolaryngology at the University of Sydney, the director of the Sydney Cochlear Implant Centre, head of department at the Royal Prince Alfred Hospital and visiting consultant at the Children's Hospital, Westmead, New South Wales, Australia. He is a true academic surgeon who has published over 170 peer-reviewed papers, 23 chapters in various ENT textbooks including the famous Scott-Brown and one book on Electrophysiology and Electrocochleography. He was awarded the Member of the Order of Australia (AM) and the Heart Award from the Variety of Australia for his outstanding contribution towards the development of the Sydney Cochlear Implant Programme over the past two decades. He was recently involved with the introduction of the state-wide infant screening- hearing (SWISH) using automated auditory brainstem responses (AABR), which has significantly improved the detection rate of congenital deafness in newborn babies in New South Wales. An interview was conducted on his fishing boat 'Mad Wax' on a pleasant Saturday afternoon in Sydney Harbour.

## An Interview with Professor William PR Gibson

**Professor, thank you for agreeing to do this interview for ENT News. A lot of people back home actually think that you are an Australian, that's not entirely correct, is it?**

No, I was born in Totnes, Devon in England and qualified from Middlesex Hospital, London. I did my ENT registrar training at the Royal Free and the London under Andrew Morrison and at that time, two young chaps called Dave Moffat and Richard Ramsden, who are now of course eminent neurotologists, were also doing their training there!! I then became a consultant at Queens Square and the Royal National Throat Nose and Ear Hospitals in 1975. I was there for eight years before taking up my chair at the University of Sydney in 1983.

**Why did you leave the UK?**

The rumour is that I could not stand the out-patients at Gray's Inn Road; but honestly, I just found it difficult to fit in my academic activities around my NHS and private work in London and decided to take up an academic post in Sydney.

**Tell me about your academic interests and what inspired you to pursue them?**

I did my MD in myogenic evoked potentials (MEP) and electrophysiology of the ear at Guy's Hospital in 1973. It was a relatively unknown subject in ENT at the time, but as we know, MEP is now used widely in vestibular function tests. It was initially John Grove's idea. He suggested that I should go to Bordeaux to learn about electrophysiology



Reporter Henry Pau with his son Joshua and Professor Bill Gibson in Sydney Harbour.

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and I thought spending some time driving in a Renault 4 and sampling some fine local wines in France would be a good idea. I went for six weeks and Dave Moffat and Richard Ramsden even put a sign outside my door saying 'gone for good' as I disappeared for so long!

**How do you apply your academic background to your daily clinical work?**

My main interest is electrocochleography (ECoChG) and Ménière's Disease. In fact, I published the first paper describing ECoChG abnormalities in patients with Meniere's in

the 70's. I also have my own little theory on Meniere's, but not many people agree with me. I remember when I was a registrar in the London Hospital, I was performing an ECochG on a lady with Meniere's who was having an attack during the test. The summing potential decreased with the attack, which, of course was the complete opposite of what you would expect if you believed in the potassium intoxication theory. I therefore think it is the longitudinal movement of the endolymph that causes the vertigo and Anderson's and Salt's papers support this theory. Based on this theory, I perform sac removals rather than decompression or drainage on patients with troublesome symptoms, and have 84% AAOHNS category A or B results.

The application of ECochG is not limited to the diagnosis of Meniere's though. We use a special round window 'golf club' electrode to perform transtympanic electric auditory brainstem response (TT-EABR) in all of our pre-operative paediatric cochlear implant patients to exclude auditory neuropathy-14% of our paediatric implant patients have auditory neuropathy, which, is more prevalent than one thinks!

Peter Rea, one of the previous Graham Fraser Fellows, found that 50% of deaf premature babies had otoacoustic emission (OAE) at birth despite their deafness. This work influenced the committee to chose automated auditory brainstem responses (AABR) rather than otoacoustic emissions (OAE) in establishing the statewide infant screening of hearing programme (SWISH) in New South Wales. Over 90% of neonates are tested within 24 hours of birth. There have been no known cases that have escaped detection so far.

***The Sydney Cochlear Implant Centre is one of the largest in the world; how did it all start?***

When I started here in 1983, I was asked if I would help Graeme Clarke in their cochlear implant programme with my electrophysiology background. Later on, the company Cochlear asked me to do some implants in Sydney and we did our very first adult implant in 1984 with good results. I also started putting multichannel implants in adult patients, which was controversial at the



**Professor Gibson with his big catch!**

One must develop one's own style and techniques and do not just follow like a sheep!!

time as some Australian surgeons claimed that there was no evidence that the multichannel performed better than the House's single channel implant. It became clear that the multichannel was much better when we showed that our adult implantees could use the phone! I also wanted to start inserting cochlear implants in children but faced a lot of opposition as the trend was for children to learn sign language back in the 1980s. However, I persisted and performed my first, and also the world's first, multichannel implant in a congenitally deaf child in 1987. It's interesting that Graham Fraser actually thought it was wrong to perform implants in children until Pat (his wife, Dr Fraser) and Graham came to Australia in 1989, they met

up with a little boy called Jake who had received a multichannel implant. Graham asked Jake: "How did you get here today?" Little Jake replied in perfect speech: "I flew in by plane this morning. We live really far away!" This brief encounter with Jake completely convinced Graham that implanting young deaf children is a good idea. After Graham had passed away, Pat set up the Graham Fraser Memorial Fellowship with John Graham and Jonathan Hazell and I have had the privilege to have one of their fellows every year for the past 10 years.

***You have had lots of new ideas and techniques; can you just summarise your favourite innovations?***

Well, first of all, using a 'golf club' electrode and the implant to perform EABR pre and intra-operatively respectively in implant patients is a more reliable way of assessing the function of the implant and the auditory neural pathway than using neural response telemetry (NRT). Secondly, a small straight postauricular incision with a tight subperiosteal pocket provides perfect access for Cochlear Implantation and reduces the rate of implant infection. This idea has been popularised by Professor Gerry O'Donoghue in England and is now widely used in the world. Finally, performing sac removal rather than just decompression in treating some Meniere's patients has given a high cure rate.

***What advice would you give to today's young budding otorhinolaryngologists?***

As a trainee, it is good to learn different techniques from various bosses. However, one must develop one's own style and techniques and do not just follow like a sheep!! It's very important!

*Bill 'Mad Wax' Gibson is a warm and friendly man. He is a true innovative academic, a great surgeon and a very patient teacher. In his spare time, he does a lot of fishing and is apparently not bad at it either! I am most grateful to the Graham Fraser Memorial Fellowship for allowing me the privilege to have been taught by one of the best otologists in the world.*

Professor William PR Gibson was interviewed by



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