

# soundscape

NEWSLETTER OF THE OTICON FOUNDATION IN NEW ZEALAND

## DEAF AWARENESS WEEK



This week, 23–29 September, is Deaf Awareness Week. This year's theme revolves around the impact of deafness and hearing impairment on young people and "toxic noise". The Oticon Foundation is pleased to support this theme by supporting research into children's ability to hear in the classroom and classroom acoustics.

In June this year the Oticon Foundation in New Zealand strongly supported the call for universal newborn screening. The most compelling case for newborn screening comes from the fact that this simple, non-invasive procedure will significantly benefit the quality of life of hearing impaired and Deaf children and their families. Of course, the fact that

health, education and special needs dollars will be saved in every case of early detection and intervention, should convince the policy makers to take this call seriously. More importantly, it is an issue that has galvanised a wide range of interest groups working with hearing impaired and Deaf people in New Zealand. The Foundation was thrilled to sponsor the visit of Professor Luterman to focus attention on this important issue.

We are also pleased to announce the launch of the Oticon Foundation website on [www.oticon.org.nz](http://www.oticon.org.nz)

**Karen Pullar, Secretary to the Trustees**

# Classrooms fail children and teachers

In June a researcher at Massey University reported "toxic noise" in a study of early childhood centres. That study offers insights into one aspect of the dynamics and impacts of classroom noise. The classroom acoustics research sponsored by the Oticon Foundation goes much further. It includes day-long recordings of noise in six Auckland primary schools, analyses building structures, identifies the realities of modern teaching styles and details their impacts on the listening environment. It also documents the effects on children with temporary, mild, severe and permanent hearing losses, interviews teachers about voice strain and the classroom environment, and conducts 'before and after' testing.

Many New Zealand primary school children are failing to hear their teachers while their teachers are straining their voices to be heard. The report, *Classroom*

*Acoustics: A New Zealand Perspective* shows that classroom noise is exacerbated by poor building acoustics and routinely interferes with communication.

The situation for children with ear infections and permanent hearing loss is even worse—at times their teacher's voice is incomprehensible.

"Classrooms with poor acoustics are those without acoustically-treated ceilings," says research leader Ms Oriole Wilson. "In those rooms our measurements show that speech sounds are blurred together and noise levels increased. In the worst cases, children are trying to listen at a point where the sound within the classroom drowns out the teacher's voice."

Ms Wilson, an audiologist, said that because children's brains are not fully developed for listening until their



teenage years, good listening conditions are vital for early learning. "Many primary school pupils are negatively affected by high levels of classroom noise and poor acoustical conditions and consequently are more likely to suffer educational failure or behaviour problems," she says. "This is an issue for any child, but is of particular concern for

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# Classrooms fail children and teachers continued

children with ear infections, permanent hearing loss, or English as a second language,” says Ms Wilson. “In some schools, these children may make up 10-20 percent of students in any one class.”

The research showed that even the poorest classrooms can be greatly improved with the installation of acoustic ceiling tiles. The research has implications for pre-school education where good listening environments are essential as these children are at a critical stage in speech and language acquisition.

Vocal strain is a serious occupational hazard for teachers. The research found that more than a third of teachers said that the level at which they needed to speak strained their voices.

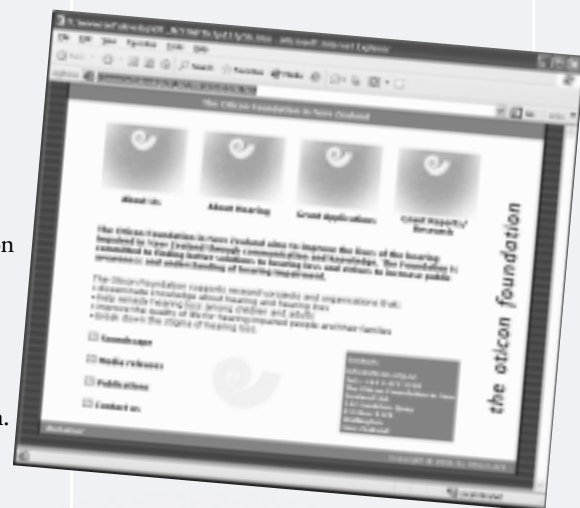
For the hearing-impaired students studied, the researchers found that those with the very worst hearing actually heard the most, simply because these children use personal FM (radio aid) systems. “The results of our research suggest that there is a very large group of students with mild to moderate hearing loss who could be hearing a lot better if they were fitted with FM systems.”

Current teaching practice advice for hearing-impaired students such as “preferential seating” is meaningless with today’s teaching practice says Ms Wilson. “It’s ridiculous to suggest that there is anything like a preferential space within a primary school classroom when teachers report ‘walking around’ as their usual classroom position for around three-quarters of the day,” she says.

Hearing-impaired children are facing obstacles in our schools due to policy changes affecting educational services, such as those provided by the Advisors on Deaf and Hearing-Impaired Children. “There is also a nationwide shortage of audiological staff in public hospitals which means children have problems accessing these services,” says Ms Wilson. The report notes that classroom amplification systems, which benefit all students and require the teacher to wear a cordless microphone, should be considered after the acoustic treatment of classrooms.

The research included acoustics specialists from Auckland University, educational advisors from Group Special Education at the Ministry of Education, two independent architectural acousticians and an audiologist. “Because we’re a multi-disciplinary group, we have been able to research the problem of classroom noise from a wide variety of perspectives,” says Ms Wilson. “Our research has already gained a lot of international attention because of our skill mix.”

The research was launched at a function at the University of Auckland Acoustics Department and was well-attended by architects and those within the building industry, educationalists and those involved with hearing-impaired services. A six-page summary of the research, as enclosed, has been produced and a copy has been sent to every New Zealand primary school. The Foundation also sponsored distribution of the research results at a recent national conference of primary school principals held in Wellington.



## Foundation's website goes live

[www.oticon.org.nz](http://www.oticon.org.nz)

The Oticon Foundation aims to improve the lives of the hearing-impaired in New Zealand through communication and knowledge. At the same time, the Foundation strives to increase public awareness and understanding of hearing-impairment. It makes sense then, to make use of the fastest-growing information medium around—the internet.

This month the Foundation's website goes live. “It will prove a useful resource to New Zealanders wanting to access information about the Oticon Foundation, and about hearing resources generally,” says Karen Pullar, Secretary to the Trustees.

The site contains information about how to apply for grants from the Foundation, as well as details about successful programmes, publications, media releases and research.

“We have also provided information about hearing, hearing issues, and support for people who are Deaf or who have a hearing-impairment, as well as links to some other key sites where further information can be obtained,” she says.



Classroom acoustics research group: Ken McGunnigle, Anne Hellier, Miklin Halstead, Joanne Valentine, Oriole Wilson, and Dr George Dodd. Absent: John Wood, Rod Simpson.

# Newborn babies need attention now

Babies need to have their hearing tested at birth if vital brain development is to occur, according to Oriole Wilson, co-ordinator of the Newborn Hearing Screening Consultative Group.

The neural pathways that process sound need to be stimulated by speech in the first few months of a baby's life, otherwise language skills will never develop to the child's full potential. Newborn detection of hearing loss is critical to early intervention and better social, educational and health outcomes.

In New Zealand, the age of detection of hearing loss is steadily increasing and is now 39 months. The long term impacts of this delay in hearing testing New Zealand children means they are not likely to 'catch-up' with their peers, leading to increased demand on costly state-funded support services in health and education. Around three in every 1,000 babies has a hearing loss detectable at birth.

To support the campaign for newborn screening, the Oticon Foundation provided its largest grant this year to sponsor the visit of Professor David Luterman, Director of a family-centred early intervention programme in Boston, US. A recognised world expert in newborn hearing screening programmes, Professor Luterman spoke with parents, service providers and hearing care professionals during July. This included an educational seminar for 34 nationwide child health professional groups, focused on intervention and support services for newborns and their families; and intensive training workshops for audiologists and Ministry of Education Advisors on Deaf Children.



Professor David Luterman

There is unanimous agreement amongst all health education and support agencies who work with the Deaf and hearing-impaired, that early detection of hearing loss is essential. This is an issue which brings together support agencies and the National Foundation for the Deaf also



contributed to the newborn hearing screening initiative and Professor Luterman's seminars. He was Keynote Speaker at the National Audiology Centre Seminar on the Newborn Hearing Screening Programme being developed in NZ. He addressed the very important issue of the type of intervention and support services that are needed for newborn hearing screening.



## Hospice benefits from better hearing

The ability of Southland Hospice staff to communicate with patients has been enhanced with the sponsorship of three Easy Listener FM systems by the Oticon Foundation through the Hearing Association of Southland.

Three sets of transmitters and receivers were presented in June to Kate Mackintosh, Nursing Director of Southland Hospice, by Karen Pullar, Secretary to the Trustees of the Oticon Foundation and Karen Purdue of the Hearing Association.

"Often our patients with hearing loss struggle to communicate

effectively with their families at a time in their lives when it is most important for them. These hearing devices will very much assist the communication for patients with their family members and indeed with the staff," Kate said. "We also envisage being able to loan this equipment out to our patients in the community who could also benefit from this amazing technology and very generous donation by the Oticon Foundation," she said.

The grant application was submitted by Tracy Henderson, Hearing Therapist (Life Unlimited) and Karen Purdue Field Officer of the Hearing Association. This followed an instance when Hospice staff had been experiencing difficulties communicating effectively with a patient in the hospice inpatient unit. "When we were contacted we could immediately see the benefit of such equipment and the importance for people with hearing loss to be able to communicate well with their families and staff," Tracy said.

# Oticon Foundation Grant Recipients 2002

## AUCKLAND SPEECH-LANGUAGE THERAPY SUPPORT GROUP

Books on hearing impairment for their library

## DAVID CROWHEN

Eriksholm Summer Camp for Young Audiologists 2002

## DEAF ASSOCIATION OF NEW ZEALAND (AUCKLAND)

Reprint of Information Kits

## DEAF ASSOCIATION OF NEW ZEALAND (CHRISTCHURCH)

Working with deaf in a counselling relationship workshops at New Zealand Association of Counsellors conference

## DEAF ASSOCIATION OF NEW ZEALAND (NELSON)

Workshops for Deaf parents with normal hearing children

## PATRICIA GILLBANKS

CHARGE conference, Melbourne

## GROUP SPECIAL EDUCATION (ROTORUA)

Sound Distribution System

## HEARING ASSOCIATION (MANAWATU)

CareKits for rest homes in Palmerston North

## HEARING ASSOCIATION (WELLINGTON)

CareKits for rest homes in Wellington

## HEARING ASSOCIATION (TIMARU)

Portable Screening Audiometer

## HEARING ASSOCIATION (SOUTHLAND)

FM Systems for Southland Hospice

## KELSTON DEAF EDUCATION CENTRE, MICHAEL HEENEY

Research Project on Sound Distribution Systems in Schools

## KELSTON DEAF EDUCATION CENTRE, MARGARET PIHAMA

Study Grant – Masters of Special Education (Sensory Disability)

## KELSTON DEAF EDUCATION CENTRE, EILEEN RAYNEL

Study Grant, Masters of Special Education (Sensory Disability)

## KELSTON DEAF EDUCATION CENTRE, CATHY WORTHINGTON

Study Grant, Masters of Special Education (Sensory Disability)

## METHODIST MISSION NORTHERN

Staff training in working with hearing impaired patients

## MT ROSKILL GRAMMAR SCHOOL

Sound Distribution System for MacLean Centre

## NATIONAL AUDIOLOGY CENTRE

Professor David Luteran, keynote speaker at workshops in Auckland, Christchurch and Wellington

## NAYLAND PRIMARY SCHOOL

Sound Distribution System

## MICHELLE NAZZER

Eriksholm Summer Camp for Young Audiologists 2002

## NEW ZEALAND FEDERATION FOR DEAF CHILDREN INC.

Materials for Information Kits

## NEW ZEALAND PRINCIPAL'S CONFERENCE

Workshops on hearing and acoustics at Windley School

## PHOENIX ASTRONOMICAL SOCIETY

Hearing loop for Wairarapa clubrooms

## PORIRUA COLLEGE

Literacy Project

## TE KURA KAUPAPA MAORI O MANAWATU

Sound Distribution System

## CHRISTINE AND CHARLES TODD CHARGE conference, Melbourne

## WAIRARAPA DISTRICT HEALTH BOARD

To print "Nose Blowing" stickers to use in child education

## UNIVERSITY OF CANTERBURY

Research into effectiveness of Personal and/or Soundfield FM for children with cochlear implants

## VAN ACSH DEAF EDUCATION CENTRE, JULIET CLARKE

Study Grant, Masters of Special Education (Sensory Disability)

## WHITIREIA COMMUNITY POLYTECHNIC

Personal FM Systems for hearing impaired students

## how to apply for grants

### Applications must include:

1. The name and address of applicant
2. If relevant, the organisation represented and position of applicant within the organisation, plus copies of latest balance sheet and annual report
3. Details of expenditure involved
4. Information about funding you are seeking from any other organisation for this or supplementary projects
5. Overseas travel details where applicable. Please state whether an applicant/s will be returning to New Zealand permanently after the visit is completed
6. How the hearing impaired in New Zealand will benefit from your project/research
7. Information about how you will publicise your project and its results. (We would like you to seek as wide an audience as possible)
8. Details about how you will promote the Oticon Foundation if your application is successful

### Applicants applying for project funding should also include:

1. Title of project
2. Summary of project (not exceeding 150 words)
3. Qualifications of applicant relevant to project
4. Aims and design of project, and expected completion date

### Applications for grants other than project funding should also include:

1. Details of grant requested
2. Reasons for request

### Successful applicants will be required to:

1. Submit a report (five copies) within three months of completion of the project
2. Disseminate results or information from the project to as wide an audience as possible, such as to the bulletins and newsletters of professional groups, hearing impaired and Deaf groups
3. Acknowledge the Oticon Foundation in any reports or publications about your project/research

## deadline

Grants are allocated annually.

Applications (together with five extra copies) should be made no later than 31 March in any year to:

The Secretary  
Oticon Foundation in New Zealand  
C/- PO Box 9128, Te Aro  
WELLINGTON  
Phone: 0800 OTICON  
E-mail: [info@oticon.org.nz](mailto:info@oticon.org.nz)

[www.oticon.org.nz](http://www.oticon.org.nz)