Interview
Dr. Helena Solodar: Steer with success

Research
Tinnitus and physical therapy

Technology
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All audiological professions, in science, in education, in hospitals and clinics are completely knowledge-driven. Successful steering in audiology depends on scientific progress, clinical data, new technological possibilities, marketing, experiences of peers... All these ingredients come together on AudiologyNOW! 2015 in San Antonio, possibly more ingredients than ever before. Last year’s theme, the one from Orlando, was ‘Experience the magic’. “It’s not magic at work. It’s only clever research and hard work”, we wrote. That seems to be what the present theme ‘Steer with success’ for the San Antonio venue also tries to convey. Clever research and hard work can open up new ways and new directions. It certainly is hard work keeping up with all developments in our field. But it’s also exciting to be part of that development and to steer with success to help shaping the future of audiology.

Audiology Worldnews relies on an international network of correspondents covering audiology-related subjects all over the world. Interested in reading our paper magazines? Audio Infos and Audiology Infos are available in nine local editions: Germany, France, Great Britain, Spain, Italy, The Netherlands, Russia, Brazil and South America. Find out how to subscribe on page 35!

The Editorial Team
Hansaton to join Sonova Group

GROWTH - Sonova Holdings AG has announced its intention to acquire Hansaton Akustik GmbH to expand the Company’s multibrand strategy and increase its strategic market reach in Germany. Subject to regulatory approval, Hansaton will become the fourth hearing instrument brand under the Sonova umbrella, joining Phonak, Unitron and Advanced Bionics. The acquisition of Hansaton, with its 200 employees, centres in Germany, France and the US and a distribution network in more than 70 countries, will ensure that wholesale will become an even stronger key sales channel for Sonova in Germany and across the world.

Lukas Braunschweiler, CEO of Sonova said, “The addition of Hansaton reflects our commitment to further develop market access. It will create significant value for Sonova and our customers, notably in Germany.”

Sonova are also targeting Germany as the next key retail market, stating that retail is a fundamental part of its strategy in Germany going forward. The Company has purchased Vitakustik GmbH and Fiebing Hortechnik GmbH immediately giving them 100 retail outlets in Germany. Braunschweiler said of this move, “We are convinced that with the expanding strategy in Germany we will help to positively contribute to the market.”

Sonova are also looking to reduce costs in its Swiss operation. Custom production will be moved to the UK, some assembly will be moved to China, Swiss-based management and employees will see a pay-freeze in 2015 and costs will be reduced from third parties.

A final announcement was the departure of GVP Marketing, Maarten Barmentlo. He will not be replaced on the Management Board.

Lukas Braunschweiler said, “The strategic moves will extend our market leadership position and at the same time assure the cost competitiveness of Sonova’s Swiss based operations.”

William Demant group acquires French chain Audika

MARKET - Holding group William Demant, the owners of hearing brands such as Oticon and Bernafon, has bought the majority share in Audika, the French hearing centre chain, for an estimated EUR 168 million, according to share values fixed by agreement between the two parties.

The operation will take place in two phases: following the purchase of 53.9% of the capital, the second phase will see the Danish firm launch a mandatory tender offer for the rest of the shares. The intentions of the buyers are registered in a natural prolongation of the natural alliance now existing between the two firms, it was announced.

For some years, William Demant has been a supplier of hearing aids to Audika, and the group declares full confidence in the strategy behind the new purchase, in its market positioning, as well as its governing board, which will be kept on to manage. Jens Kofoed, CEO of Promotion, the French subsidiary of the William Demant group, revealed the details and motivation behind the purchase: “Firstly, it’s driven by necessity. With this operation, our holding firm defends its access to the French market.” In his opinion, had the group not made this move, another big player in the sector would have got there first. “You can see clearly how in today’s market, whether for distribution chains or independent hearing care centres, the trend is for purchases to be increasingly concentrated amongst fewer hearing aid brands,” he affirmed.

“We will stand by our independent customers as we have done to date,” promised Kofoed, who underlined that the William Demant group is already present in the French market with its cochlear implant firm, Neurelec, integrated within Oticon Medical.

125 MILLION

Excess noise affects 125 million Europeans

Health. The European Environmental Agency has revealed that 125 million people are submitted to excess environmental noise. This means that noise pollution affects one in four people, causing conditions in 20 million adults and sleep disturbance in a further eight million. European countries in which more than half of the population is exposed to noise pollution are Austria, Belgium, Bulgaria, Spain, Estonia, Holland, Ireland, Lithuania, Luxembourg, Poland, and Rumania. M.M.
Improved hearing could delay mild dementia

STUDY - Preliminary findings of a new study on dementia have found that correction of hearing loss with hearing aids may delay the onset of mild dementia. Earlier studies have shown that people with hearing impairment are significantly more likely to develop dementia in old age compared to those with normal hearing. There is however no evidence to date that correcting hearing can effectively improve dementia. Previous research has also demonstrated a reduction in cognitive decline among study participants who use hearing aids.

This was what motivated researchers from the University of North Texas (USA) to partner with audiologists from Unitron to conduct the study aimed at assessing the possible relationship between improved hearing and cognitive function in patients with Alzheimer’s disease or other forms of dementia. The study called ‘Hearing Aids and Dementia’ enrolled adults aged 50 to 90 years with mild dementia who were inexperienced with hearing amplification devices. It measures speech-recognition performance in noise, cognition, and self-reported improvement in quality of life.

According to Dr Amyn M. Amlani, PhD, associate professor of speech and hearing sciences at the university, “In particular, we want to understand whether better hearing can play a role in helping people with dementia lead more active and engaged lives, particularly if hearing loss is identified and treated early.”

If the preliminary positive findings are confirmed, they could have significant implications for aging individuals as they begin experiencing hearing loss. Study completion is expected in late 2015.

Source: Marketwired.com; University of North Texas.

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Brazil reinforces its public standards for cochlear implants

**DECREE** - Brazilian Ministry of Health Decree 2.776 of December 18, 2014, has established new standards for the surgical treatment of deafness through the *Sistema Único de Saúde*, the country’s publicly funded health system.

The new regulation supersedes Decree 1.278 in force since 1999, which set the rules for cochlear implants in the Brazilian public sector for 15 years. Decree 2.776 includes a range of new procedures (now 24 instead of 4), including simultaneous and sequential bilateral cochlear implant in children aged under 7 years, and in teenagers and adults with post-lingual deafness.

For the former group, bilateral CI depends on several conditions, among which not benefiting from bimodal fitting (CI+HA), scoring 50% or less on open-set sentences testing, and adequate rehabilitation conditions in the city of residency. Furthermore, teenagers and adults who meet the criteria have to undergo sequential CI, since the first implant must have been proven effective before implanting the second.

Another improvement is a 6-year free-of-charge warranty for all devices’ external parts, and sound processor replacement after six years. The decree also includes bone-anchored hearing aids in the government’s hearing health policy.

Besides new procedures, the new decree also obliges CI hospitals to request a new qualification with requirements exceeding those of the former regulation. For instance, the Brazilian Ministry of Health aims to increase knowledge in hospitals with little CI experience. Hospitals with less than 10 years’ qualification in the CI government program or less than 240 CIs need to qualify their otolaryngology surgeons with a 60-hour course on CIs and bone-anchored HAs, an 80-hour practical internship, and the follow-up of 20 surgeries (10 in adults and 10 in children).

Source: Audiology Infos Brazil

Auris Medical granted patent in China for tinnitus treatment

**Patents** - Switzerland-based biopharmaceutical company Auris Medical has been granted a Chinese patent for its novel tinnitus treatment AM-101. Auris Medical Holding AG announced on February 11 that it had recently been granted a patent by the Chinese patent office covering the use of its investigational tinnitus treatment AM-101. The patent describes methods for treatment of tinnitus induced by cochlear excitotoxicity, and in particular the use of ketamine and related compounds.

We are very pleased by the patent grant in China, which adds substantially to our intellectual property portfolio related to AM-101", said Thomas Meyer, company founder and Chairman and CEO of Auris Medical. “Epidemiologic studies estimate that 130 million people experience tinnitus in China, which is similar to the prevalence in other parts of the world and suggests a significant unmet medical need.”

Development of the novel treatment is based on research conducted in France at the National Institute for Health and Medical Research (INSERM). AM-101 is a small molecule acting as an N-methyl-D-aspartate (NMDA) receptor antagonist.

It is being developed as a biocompatible gel for intratympanic injection. Earlier studies have shown that NMDA receptors in the cochlea play a major role in the occurrence of tinnitus following inner ear excitotoxicity. It is thought that upregulation of NMDA receptors causes abnormal excitation of auditory nerve fibers, which is perceived by affected patients as tinnitus. It is hoped that NMDA antagonists will counteract this effect.

Source: Nasdaq Global Newswire

Canadian Comedian D.J. Demers is “a pretty funny guy who happens to wear hearing aids, but it’s like totally not a big deal”. His recent set on Conan is available on our website.
Reaching infants with hearing loss through technology

PROJECT - CNN Money reports on a joint partnership between Stanford University (California, USA) and the Weingarten Children’s Center, Redwood City, California, a school for children with hearing disabilities. The project, called ‘BabyTalk’, is funded by a three-year USD 260,000 grant and can serve up to 30 children at a time to help them to communicate with audiologists and speech therapists from a distance. The program is meant to operate as a test case to demonstrate how telemedicine can make patients’ lives easier, save money, and bring specialized medical care to underserved and remote rural communities. “Our whole program is based on the notion that we can intervene with technology, developing listening and cognitive skills,” says Kathy Sussman, Weingarten’s Executive Director. The program is offered to families in need free of charge and uses iPads to connect children under three years of age who have or are getting cochlear implants with a remote support network of professionals. This makes it possible for the carers to carry out regular speech therapy over an iPad using FaceTime, to track progress by email, and for the family to call in if they have questions. Speech therapist Jan Christensen, one of the professionals working on the program, says that using this technology she is able to make progress comparable to that she makes with children she helps in person at the Children’s Center. One benefit is that the children in the program are in their own homes where they are more relaxed, potentially giving the therapists a clearer picture of how the child is progressing. On the other hand, they may also be more distracted than they might be in the therapist’s office. C.S. Source: CNN Money

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Auditory brainstem implant (ABI) in a small group of children in the USA

BRAINSTEM IMPLANTS - This is the first trial of these devices in the United States in younger children. During a presentation at the 2015 Annual Meeting of the American Association for the Advancement of Science (AAAS), the audiologist and researcher Laurie Eisenberg, from the University of Southern California, presented the results of the clinical trial carried out by her team. The trial, launched in March 2014 with support from the National Institute of Health, has so far included surgical implantation in four children. Until January 2013 in the United States, only children with hearing loss aged over 12 years were able to benefit from brainstem implants. It was then that the US FDA approved conduct of clinical trials in younger children. These are thus the first results in the US for this population group.

In Europe, however, children have been receiving ABIs for more than 10 years. In Italy, the team of Prof. Vittorio Colletti, University Hospital of Verona, has already implanted several children who had cochlear nerve aplasia. In France in 2014, and although the French High Authority for Health (HAS) has not ruled on the minimum age for implantation, a team of surgeons from Necker and Pitié-Salpêtrière hospitals in Paris provided brainstem implants to three children, including two who had neurofibromatosis type 2 (NF2), a rare nervous system tumor disorder, and one with a bilateral labyrinthine malformation and agenesis of the two cochlear nerves.

Italy: at last newborn hearing screening for all

REGULATION - The Italian Minister for Health, Beatrice Lorenzin, has approved the text of the proposed update to Italy’s Standards of Healthcare (LEA), on the cards since 2001. The proposal will be assessed and approved in conjunction with local authorities.

Looking over the articles of the document, two in particular are of special interest to the audiology sector.

First is the measure aimed at introducing universal newborn hearing screening into the Standards of Healthcare. A project serving as a basis to overcome the appalling regional disparities that currently penalize the young infants born in parts of the country that are not yet covered by a tested system for diagnosis of hearing loss in maternity centers.

The second measure with significant impact, found in the chapter on provision of hearing aids, is the acceptance of a change requested for some time by sector associations that deal with disabilities. It involves including digital hearing aids in coverage provided for by the Standards of Healthcare. We should remember that on the basis of current pricing regulations, people with hearing loss are entitled only to old analog devices through the national healthcare system. These devices have for years been surpassed by clinical evidence and by a market that has clearly placed technological innovation at the center of its strategy. Two changes that could, once approved, justifiably be considered a revolution.

Universal newborn hearing screening that could really help to remove hearing-related disability from tomorrow’s society, enabling affected people to benefit from timely diagnosis at birth and rehabilitative treatment. And reimbursement of digital hearing aids by the national healthcare system that would certainly help to improve quality of life for people with hearing devices of all ages, and could potentially also boost the hearing devices market that appears to be in serious need of new momentum.

INITIATIVE

Equal access to justice

Mexico’s Legislative Studies Committee is aiming at changes to bring equality of conditions in access to the country’s legal system for those with hearing, speech, or visual disabilities, a move requiring a reform of the Federal Penal Code and the Federal Code of Civil Procedure.

Senator Graciela Ortiz, president of the Commission, affirmed that the legal framework is being adapted to “bring into line trial rules and jurisdictional procedures for persons with speech, hearing, and visual disabilities.”

This will mean disabled persons involved in court proceedings will be assisted free with interpreters or aid to guarantee conditions for full comprehension and communication with other citizens.
PROJECT - Researchers at Sogang University, Korea, are developing a body motion energy harvester that can be applied to high-flexion joints and that is suitable for integration into fabrics. The web-based science, research and technology news service Phys.org reports on this novel technology being developed in Korea. The body motion energy harvester, which could represent an alternative energy source to costly batteries that need regular recharging, is intended to provide power for medical and consumer wearable devices, notably hearing aids.

Energy harvesters use a variety of physical sources to obtain power from the human body, including heat, light, friction, and importantly motion. The kinetic energy harvesters proposed until now had a limited range of flexibility and elasticity. The researchers at the Micro & Nano Engineering Laboratory (MNELAB), Sogang University, Seoul, South Korea, are aiming to create energy harvesting technologies that obtain useful energy from only “wearing and moving”, and that overcome the problems of limited flexibility. By proposing a system that is elastic, power can be generated from the body’s most energy-abundant areas, such as body joints with a large range of motion: the knees, elbows, hips, or shoulders.

MNELAB researcher Prof. Kwang-Seok Yun explains, “Existing flexible energy harvesters have little elasticity because they use plastic substrates that are flexible but not elastic. Therefore, it’s difficult to harvest energy effectively in those areas. This may lead to degradation of device performance or damage due to excessive tensile force. Our suggested device, on the other hand, has high flexibility and elasticity, from a helical spring structure and an elastic support material, which helps to harvest energy effectively.”

Source: Phys.org News
Hearing loss among the top five health conditions facing the Middle East

UAE - A special report on health issues in the Middle East recently showed that 1 in 25 people in the region has some degree of hearing loss. The survey, sponsored by MED-EL, was conducted at the end of 2014 for nearly four weeks and included interviews of hearing loss experts in 140 ENT clinics across the region. The results were presented during a round table held as part of the Emirates Rhinology and Otolaryngology Conference organized in Dubai in mid-January.

Of the specialists interviewed in the survey, 87% reported that hearing loss featured among the top five conditions prevalent in the region, alongside diabetes, hepatitis and obesity. The study highlighted the importance of early intervention in dealing with this major health problem.

According to one of the round table panelists, Dr Hussain Al Rand, Assistant Undersecretary for health centers and clinics at the Ministry of Health, UAE, the health sector is taking the findings very seriously and is working on early screening procedures for newborns up to 3 years of age. “The earlier the problem is identified, the higher the chances of success of the treatment,” he said.

The study also highlighted the importance of education and literacy in the general awareness parents have of their child’s potential hearing impairment. “When parents had awareness, they were able to detect their child’s problem quickly and reach out for help. Early intervention resulted in early correction of the problem, as the brain has higher plasticity at a young age. Parents need to look at basic symptoms of hearing loss as early as a few months after birth,” said Dr David Raetz, CEO of Dubai-based Med-El Middle East FZE.

Source: Gulf News

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Novel animal model to assess presbycusis developed in Spain

RESEARCH - A scientific team from the Instituto de Investigación en Discapacidades Neurológicas (IDINE) at the University of Castilla-La Mancha and Soniotica has designed an innovative animal model to assess presbycusis with Wistar rats, a species which does not present associated pathologies, and offers similar characteristics to those found in human beings.

The physiological and histological results of this study indicate that Wistar rats could be an excellent and reliable animal model for evaluating the underlying mechanisms of age-related hearing loss. This will enable scientists to design new therapeutic strategies to help reduce the consequences of this common sensory impairment. Moreover, the concomitant reductions in excitation and inhibition of auditory nuclei from the nervous central system is an important discovery, as this could be a characteristic feature of animal models for age-related hearing loss.

The study was launched in 2011 with a view to obtaining an animal model for age-related hearing loss that would not have the same limitations as existing models. This is the case, for example, with Fisher 344 rats. Despite being an excellent model, this species is known to present tumor incidences which could affect possible research results. The members of this work group include José Luis Blanco, Verónica Fuentes Santamaría, José Manuel Juíz, María Cruz Gabaldón Ull and Juan Carlos Alvarado Romero.

The pilot data has been presented in national congresses, such as the National Congress of the Spanish Society of Neuroscience and the National Congress of the Spanish Association of Audiology. A scientific article has been published in the review Frontiers in aging neuroscience.

Source: Audio Infos Spain

C.S.

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**Good Luck for AudiologyNOW! 2015!**

Every year, organizing AudiologyNOW! 2015 is a big challenge. However, the result is evident already before the convention starts: your program is excellent! AudiologyNOW! 2015 is an ideal platform to get in-depth information on innovations in our trade. In Europe, we also have a platform for successful further training and sharing of expertise — the International Congress of Hearing Aid Acousticians, the focal point of our trade in Europe that has acquired international renown. The European Union of Hearing Aid Acousticians (EUHA) is the organizer of this convention. As a specialized association, we have been active for almost 55 years, campaigning for qualified and specialized further education and vocational training for hearing aid professionals.

This year, the Congress, held for the 60th time, is scheduled for October 14-16, 2015, in Nuremberg, Germany. Some 7,500 attendees from approx. 90 countries are expected to take part in the Congress. Fully qualified hearing aid acousticians (master craftsmen and graduates) are its main target audience. More than twenty lectures, a roundtable talk, and educational sessions will be on offer — a good opportunity to collect continuing education units on a European level. In general, at our congresses, we discuss a broad range of topics. International speakers present groundbreaking results of the latest research in audiology and medicine, with strategies for improving hearing aid fitting and connectivity in modern communications solutions being the main topics. Apart from top-notch expert lectures, the accompanying industry exhibit featuring more than 100 exhibitors is an additional attraction for participants.

Further information is available from: [www.euha.org/events/](http://www.euha.org/events/)

Fitting in well with the idea of successful work, you are cordially invited to join us in Nuremberg — as an attendee, a speaker, or exhibitor. The deadline given in our call for papers is March 27, 2015. You may submit your suggestions to info@euha.org, enclosing a one-page (A4) abstract.

I should like to wish all of you success for AudiologyNOW! 2015, and look forward to meeting you in Nuremberg, at the 60th International Congress of Hearing Aid Acousticians.

Martin Blecker,

President of the European Union of Hearing Aid Acousticians

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**Conferences, conventions...**

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<td>9th to 10th April</td>
<td>10th European Symposium of EURO-CIU (Antwerp, Belgium)</td>
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<td>10th to 12th April</td>
<td>UNSAF 2015 (Paris, France)</td>
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<td>19th to 21st April</td>
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<td>30th April to 3rd May</td>
<td>10th Asia Pacific Symposium on Cochlear Implants and Related Sciences (Beijing, China)</td>
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<td>27th to 30th May</td>
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www.academyresearchconference.org

**AudiologyNOW!**
Indianapolis, IN, April 5–8, 2017
www.audiologynow.org

**AudiologyNOW!**
Nashville, TN, April 18–21, 2018
www.audiologynow.org
Steer with success

The welcoming Tex-Mex culture of San Antonio offers a fertile atmosphere for serious fun to go together with hard learning, this year’s Program Committee Chair, Dr. Helena Solodar, emphasizes. According to her, the program has become a powerful mixture of these two ingredients. You don’t want to miss it!

We are always on the lookout to make our next issue the most exciting and informative one ever for all attendees. Visiting audiologists from different backgrounds, such as the scientific, educational, clinical or business settings all expect to find knowledge and inspiration at AudiologyNOW! to “steer” their activities “with success” for another year. Like no other sector, the audiology sector is knowledge-driven. Therefore, we offer just that: clinical data, practical know-how, knowledge and insight that can be brought back to the office the following week in order to boost success. Business information, scientific knowledge and shared educational experiences all contribute to that, but let’s not forget the contribution of old and new friends and colleagues. Networking is an important integral part of the whole experience”, says Dr. Helena Solodar, 2015 Program Committee chair and co-owner of Audiological Consultants of Atlanta. That’s one explanation for this year’s theme, “Steer with Success”. Secondly the motto makes reference to the location of the venue. And what better symbol than the famous Texas longhorn cattle?

Dr. Solodar says, “In order to attain the maximum benefit for all attendees, we build on the successful foundation from the past and add new highlights to the program. I’m quite excited about the result of that powerful mixture which already has proven to have made a strong impact. To date, we’re looking at favorable attendee numbers, already exceeding those of Anaheim and approaching those of Orlando. I’m thrilled about the fact that there are so many student attendees who will not only attend the SAA Conference, but who will also attend other events and sessions on the program.” The location of San Antonio certainly helps, Solodar notes: “It is a wonderful convention city. It has the perfect size – not too much of a distraction – and at the same time it offers an unequalled ambiance. The River Walk with its beautiful streets, sidewalk cafés and restaurants, displaying Mexican food and culture, has quite a unique Tex-Mex flair to it.”

NEW EVENT: NIOSITA
For a couple of years now, the Academic Research Conference, ARC, is held on Wednesday, the first full day of of the congress. This year’s theme is Vestibular Assessment and Rehabilitation. Solodar remarks, “This one-day translational conference will review the various vestibular dysfunctions and share what research and practice is being done in the areas of both vestibular assessment and rehabilitation.”

Wednesday night features Celebrate Audiology with the
2.5 hours of fun and interaction between attendees and our exhibitors. “There’s also a Mix and Mingle for students, offering them the opportunity to speak to manufacturers, students groups and all kinds of professionals, with the attractive perspective for them to meet potential future employers.” On Thursday, the Honors and Awards Banquet and Reception are scheduled to honor individuals with special accomplishments for the audiology community. Solodar says: “This is also an excellent occasion for exchanging experiences among peers and for just catching up with old friends with food and drinks.” A few other events for Thursday night include the ABA Certificate Mixer and the International Reception. No AudiologyNOW! could do without these proven items on the agenda.

“But the NIOSITA is an entirely new event”, says Solodar. For those unfamiliar with the event, it is a special version of the annual celebration NIOSA - a Night in Old San Antonio. “This special event is hosted by the San Antonio Conservation Society and only ten organizations are granted the privilege to participate annually – and the American Academy of Audiology is lucky enough to be one of those ten. It is a traditional fiesta in the historic ‘original’ downtown village of La Villita along the banks of the renowned San Antonio River Walk where all participants will feast with Mexican food, music and dancers; the best way imaginable to spend a Friday night.”

SO MUCH GOOD CONTENT
Besides the fun, there will also be a great deal of serious learning opportunities. Solodar cites, “AudiologyNOW! offers eight exciting learning labs with a half to a full day program, 34 featured sessions, 43 industry updates, 20 exhibitor courses, 33 research podium presentations, 98 learning modules, 20 student sessions and on top of that more than 200 poster presentations to be found on the floor of the exhibit hall. Surely there’s something for everybody in this vast supply of new knowledge! And for every area within audiology there are highlights to be found. There’s just so much good content available from our colleagues and it is so important to share.”

A FACE TO A NAME
On the exhibit floor more than 170 vendors and exhibitors can be found with their latest products and services. Dr. Solodar points out, “The exhibit hall is obviously an opportunity to get an overview of the products and technologies available on the market; but don’t forget it’s also a rare opportunity to meet the higher management of manufacturers and their new staff as well. It’s an excellent occasion to connect the face with the names you are accustomed to hearing and also to strengthen the relationship with the people you do business with.” Solodar would like to keep her overall message about AudiologyNOW! 2015 in San Antonio a simple one: “It will be another great year that you won’t want to miss. So, come, learn a lot and have fun along the way.”

Leendert van der Ent
ARC: www.academyresearchconference.org
Event planner: www.eventscribe.com/2015/audiology
Marketing and demography: Who are your customers?

OF COURSE, EVERY INDIVIDUAL CUSTOMER IS A UNIQUE PERSON. NO DOUBT ABOUT THAT. AND OF COURSE THERE ARE BIG DIFFERENCES BETWEEN PERSONS, BUT IT IS USEFUL TO HAVE A GENERAL PROFILE OF GENERATIONS TO HELP KNOWING WHO THE CUSTOMERS ARE. EACH GENERATION HAS ITS GENERAL CHARACTERISTICS THAT WE CAN BASE OUR UNDERSTANDING ON. THE ‘WAR GENERATION’ FOR INSTANCE DIFFERS QUITE DISTINCTLY FROM THE ‘BABYBOOMERS’, WHO ARE GENERALLY ANOTHER TYPE OF PEOPLE THAN THOSE BELONGING TO ‘GENERATION X’. SO LET’S GENERALISE FOR ONCE AND TALK ABOUT THESE THREE GENERATIONS. HEARING AID SPECIALISTS CAN ADAPT THEIR MARKETING MESSAGE AND CHANNEL TO REACH ALL THREE GENERATIONS.

Let us call the people who were born between 1925 and 1945 the seniors. These seniors tend to rate loyalty, honesty and integrity highly as human traits and display these qualities. They tend to display a shared sense of community and camaraderie, valuing connections with friends and family highly. Because they grew up in a period of relative scarcity, they tend to be frugal. Having learned to do without at times, they have learned to save. They often have dedicated their life to the serving of others, family and friends. Spending money on themselves is something they don’t undertake lightly. Seniors have faith in traditional institutions and authority. They also tend to be very patriotic.

This faith in institutions means that they have high regard and trust in medical professionals, priests and other pillars of the community. Referrals made through these pillars of the community will be highly regarded with almost automatic trust. Whilst seniors are not as comfortable with technology, it is interesting to note that they are some of the highest adopters of tablets such as the iPad.

TOUCHING THE SENIORS

Seniors tend to be conservative, they like things simple and straightforward. When communicating with seniors one needs to consider the character traits, the persona. All the hearing aid specialist’s marketing needs to be designed in
the light of the person who is targeted. The trick with all marketing, not just audiology marketing, is to encapsulate an emotion. One needs to communicate a feeling, an ideal that the target market identifies with. In the case of seniors the language needs to be conservative, courteous. The overall brand feel needs to display the traits that they rate highly. Lifestyle scenes that they will identify with will involve community gatherings and extended family scenes.

When one has converted a senior prospect to a patient, it is important to remember that they value the connection and the relationship with the company and the staff highly. Seniors respond to warmth, empathy and the personal touch. If they value the shop in this manner, they will become a strong advocate for the business.

SENIOR’S CHANNELS
Seniors are the highest proportion of newspaper readers. However, don’t forget they tend to read traditional conservative and local newspapers. They still watch TV, in particular daytime TV. In the western world they are on the web and they do use social media. In particular they use Facebook; however, unlike other demographic groups, they don’t use it to follow brands. They use it to communicate and to stay in touch with their family and friends.

Both traditional media and new media can and should be used to touch seniors. When designing imagery for traditional or web channels, one needs to consider the terms discussed. The wording or tag line also needs to be framed in conservative but straightforward tones. Any affiliations to wider community groups that appeal to seniors should also be displayed, possibly with small logos of the group at the bottom of the advertisement. In this way adverts can be designed that will touch the audience and drive enquiries.

BABYBOOMERS ARE COMING
The babyboomers are coming, the babyboomers are coming! We have heard this before, but since the last five years they actually manage to find their way to the hearing aid store. Babyboomers were born between the years 1946 and 1964. Babyboomers as a group are forward-thinking and tend towards optimism. They don’t have nearly as much faith in traditional institutions as their predecessors. Boomers formative years tend to have taken place during times of social upheaval and rebellion. They tend not to be as conservative as their predecessors and respond well to humour in marketing, even if it might be at their own expense.

They are wary of experts and authority of most kinds. But they are very responsive to testimonials and referrals from people they trust, people within their network. Whilst testimonials from people they know will sway them, they are not as persuasive as enforcement from their social circle. Babyboomers are independent and hold individuality in high regard. They consider themselves active and want to remain that way. Babyboomers put a high value on their independence, lifestyle and well-being. They look at retirement as a time to reward themselves, to experience life on their own terms. They want to remain connected, happy and active and will invest in purchases that help them achieve these goals.

CONNECTING WITH BABYBOOMERS
They are in general well-educated and tend to be quite technologically savvy. They are also far more open to new technology than their predecessors. They tend to be data-driven individuals and have the education and versatility to understand data. They tend to research purchases and want a consultative approach from the people who sell to them. They are not averse to spending on themselves, in particular if the purchase is a lifestyle spending.

They will not tolerate paternalism in the purchase relationship and they will actively rebel against it by bringing their business elsewhere. They put a high value on trust and face-to-face relationships.
They are wary of and on the level with modern marketing techniques. They are not as easily swayed by such techniques, but are very responsive to content or inbound marketing.

THE CHANNELS
Babyboomers are active web users and use it for communication, research and commerce. They have adopted social media with a vengeance, perhaps even more so than the younger generations. Babyboomers are some of the most active people on direct email campaigns and sign-ups. If they value the information they are happy to part with their data. Babyboomers also value phone contact and most of all face-to-face contact; these are the things that have dominated their business lives.

TV still reaches babyboomers, but this is mixed at best; babyboomers tend to watch their TV on demand using services such as Netflix. They still read newspapers, but circulation of newsprint is in decline. They can have their news served to them via the web in any form they want. They are comfortable with both email and SMS as communication tools.

Whilst traditional media is still important for connecting with boomers, it is declining in importance. The use of digital media is very important to connect with babyboomers and will only continue to increase in importance. They will respond well to group and activity imagery, they can easily relate to these images. Words used in marketing need to relate to their desire to remain active. It also needs to relate to what a purchase will deliver to them in relation to lifestyle.

GENERATION X AS RESEARCHERS
The first step in any purchase or decision process is the motivation, an event that spurs the decision pathway. In the case of healthcare this event can be illness, general symptoms or a diagnosis. These events are the catalyst, the motivation that will prompt potential customers or patients to start their research process. It is important, though, for marketing purposes that it is realised that not only the potential patients themselves are part of the decision pathway. Nor are they the only researchers that hearing aid specialists will have to impress.

Born from the mid-sixties through to the mid to late eighties, Generation X’ers are the sons and daughters of the main target market. They are therefore important to both the sales process and to the marketing activity. They are important to the on-line audiology marketing activity, because they will be undertaking research for their parents. It is imperative that hearing aid specialists are aware of this, and of the psychological implications, at all times. Loved ones or significant others cannot just be the motivation but also the motivated. This can be noticed every day in practices. They may in fact be a large part of the decision pathway, particularly in the beginning of the process. They may also be the primary researcher for the decision pathway.

So marketing needs to be directed at multiple personas. It needs to address the needs and motivations of different stakeholders in the decision process.

WHO ARE THEY?
Generation X is a diverse bunch. This goes for all generations, but more in particular to them in areas such as race, class, religion, ethnicity and sexual orientation. They are more likely to be the children of divorced parents than previous generations. Statistically, they have the highest education level as compared to preceding generations. They place a great importance on education and knowledge. Generation X’ers may make less money individually in real euros than their parents did, but they have a higher household income because the women are also massively involved in the workforce. They are a cynical lot and are wary of brands; they also don’t have a great deal of time for tradition. They are technology savvy and have embraced all forms of mobile technology. They are among some of the highest daily users of the internet for fun, research, commerce and communication.
HOW TO REACH THEM
This is a little difficult for people who want to sell to them. Their online consumption is fragmented, they use many devices to consume information. Interestingly though, they are among some of the biggest users of review and opinion sites. They are also some of the biggest researchers while shopping online. This knowledge can help anyone who wishes to reach this generation.

They best way to attract and woo them is to have them come to you through content marketing. They are constantly researching; therefore presence on the Search Engine Results Page (SERPs) will draw them to you. An in-depth content strategy with this in mind is important to reach business goals. They like informative, fast, interactive sites full of quality information. Any offers need to be well laid and clear or otherwise they may well become sceptical. As they are dealing with the ongoing healthcare of a loved one, they will want a site to be professional and preferably to be endorsed. On the contrary, they may well be turned off by sites that are too commercial and lack any social proof.

They are independent and self-reliant, brand or brand prestige alone will not appeal to them. Provide masses of information to them, so they understand your products and services. Whilst they want to see professionalism, they also want to see empathy and the human touch. Because of their love of all mobile devices you will need to ensure your site is responsive and can be viewed on any screen. This is an imperative for this generation.

Geoffrey Cooling, author of www.justaudiologystuff.com and www.audiologyengine.com
Email: geoff@audiologyengine.com

“...In the case of seniors the language needs to be conservative, courteous.”

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In the case of seniors the language needs to be conservative, courteous.”
Last year I coined a new term – “hearables”, for things you put in your ear. Much of what’s happening in that space is being driven by developments in hearing aids. Hearing aids have made immense technical progress since the first electronic ones were introduced to the market over fifty years ago. Few people remember those early ones – they involved large battery packs and amplifiers which people strapped underneath their clothing. But the benefits of better hearing were so great that people were prepared to do that. Today hearing aids are so small that you hardly notice them, whether you’re the wearer or an observer. The technology within them has also made incredible strides. They may contain multiple microphones, which, along with clever digital signal processing let you focus on sound coming from in front of you, behaving much like your ear. They can also adjust the way they amplify sound to cope with different locations, from noisy streets to the office, restaurants and the home. The amount of technology which has been squeezed into such a small space is incredible, surpassing other high-tech products like tablets and phones for the sheer density of electronics.

Despite the progress in performance and technology, few hearing aids do more than react to the ambient sound. That’s about to change, thanks to a cooperative development between EHIMA – the European Hearing Industry Manufacturer’s Association - and the Bluetooth Special Interest Group (SIG). They’ve come together to add a new generation of ultra-low power Bluetooth wireless to hearing aids, which will enable them to connect to a wide range of devices which can stream music and audio to them, in addition to their current functionality as pure hearing aids.
A MUCH BROADER VISION
When most people think of Bluetooth and ears, their first thought is the traditional Bluetooth headset, which is used by drivers who want to receive phone calls. In recent years these have been joined by wireless stereo Bluetooth headsets which stream music from mobile phones and music players. The vision of EHIMA and the Bluetooth SIG for the next generation of hearing aids is much wider, encompassing many different sources of voice and music that people experience throughout the course of a day. It reflects a change in the way people interact with sounds of all kinds. More and more of us wear headphones or earbuds for a significant part of our day. The move to digital music, whether from a local music player or being streamed via a broadband network has made a much greater variety of music and radio channels available. But this variety, particularly for personal listening, is difficult for hearing aid users to access. A few hearing aids have already started to use Bluetooth to connect to recent models of iPhones, bringing some of this experience to users, but the vision is to go far beyond that, bringing wireless audio to every smartphone and audiovisual product which we use, as well as embedding it into community and public spaces.

It is a major challenge to add all of this extra functionality without a significant reduction in battery life. To achieve that, the designers are utilising the extremely low power capability of the latest Bluetooth Smart specification. It’s already used in smartphones and tablets to connect them to a growing number of fitness and wearable devices, from sports shoes to health monitors or smart watches. Until now it’s only been able to transfer a small amount of information such as how far you’ve walked or how many calories you’ve burned. Now the engineers who develop the Bluetooth specifications, in conjunction with experts from hearing aid companies, are working on adding audio to the wireless standard without a large impact on the battery life.

They’ve also realised that consumers will want to be able to listen to lots of different things during the course of their daily life. The new hearing aids will allow them to receive an audio feed from their TV or radio when they wake up, stream music to them from their phone or get directions from their satnav on the way to work; make calls with their work phone or PC, listen to their TV in the evening when they get home, or a film at the local cinema. All of the time the hearing aid also works as a hearing aid, letting them take control of what they want to hear.

UNDERSTANDING LISTENING REQUIREMENTS
A key component to the research within this project is to understand how people listen to things. For most of us it’s instinctive – we simply face the source of the sound and our ears and brain do the rest. With wireless, you can no longer turn towards the transmitter, as there may be multiple sources of the wireless audio within a home or office. So as well as working to add low power music capability to hearing aids, the designers have had to consider how users can make their listening selections. That involved looking at using smartphones, keyfob sized remote controls and even more advanced technologies like smart watches and gesture control to let people navigate their way through a new world of wireless sound.

Thinking about how they will be used has led to other benefits. For over 40 years hearing aid users have relied on a telecoil system to listen through their hearing aids in public spaces like theatres, buses and ticket counters. The new Bluetooth standard will replace that, providing better sound quality and also making it far more economical to install equipment that supports hearing aids. As a result we’ll see an increase in the number of places where hearing aid users
can connect directly to a person or public announcement. It may even mean they get a more audible response than other people who rely on poor quality speakers to converse with someone on the other side of a ticket counter.

Another key requirement that’s being worked on is the ability to share sounds. Multiple members of a family will be able to use their hearing aids to listen to a TV, or share music from a phone, each with the ability to set their own personal volume. Using wireless to share music has long been considered one of the most difficult aspects of wireless technology. The combination of expertise from hearing aid experts and wireless developers has finally found a viable solution which will find use from the dance floor to the church, and the theatre to the front-room sofa.

FINALLY OVERCOMING STIGMA?
Alongside these developments, researchers are looking at the ear as the best place to measure elements of our health. Earbuds are starting to appear which can measure our heart rate, temperature and fitness, by counting steps and working out how many calories we have burnt. There are even companies building pulse oximeters into earbuds to check the oxygen saturation in your blood. Compared with the wrist, which is where most people wear fitness bands, the ear provides more stable measurements because it’s moderately static. It may even be possible to take non-invasive measurements of blood pressure using a wireless music ear-bud. Whilst none of these measurements are relevant for the basic, everyday operation of a hearing aid, it looks highly likely that some hearing aids may incorporate them, particularly for people with hearing loss who regularly take part in sports and exercise.

Perhaps the biggest revolution will come in the way that people perceive hearing aids. Far too many people put off using hearing aids; it’s estimated that most hearing aid users would have benefited from acquiring one ten years before they’re first fitted. Part of that is due to perception, as a significant number of people still feel that there is a stigma associated with wearing them. That’s quickly dispelled when you try one of these new generation’s hearing aids. They’re so light you barely notice you’re wearing them and the music quality is startling. As the new Bluetooth specification evolves, that quality will get better and better. Many years ago spectacles had the same issue – they were seen as a necessary aid, but weren’t fashionable. Today there is a massive designer industry in frames. The same is true of orthodontic braces, which have transformed themselves from a piece of ugly dental mechanics to fashion jewellery. As it becomes possible to increase the connectivity and quality of hearing aids they’re likely to evolve to be just as desirable as any other piece of consumer electronics. Not only is that good for the industry, it’s really good for consumers who will start to wear them at an earlier age, saving themselves from a decade of imperfect, frustrated hearing loss.

It will take time to bring this new vision to the market place, but all aspects of the consumer electronics and hearing aid industries are behind it, working hard to make it happen. It’s almost certain that the advances being made by the hearing aid companies will percolate down to consumer audio products giving us a new generation of wireless earbuds and headsets with battery lives of weeks or more between charges. At the Consumer Electronics Show (CES) this year we’re starting to see the forerunners of these devices which bring the promise of a new world of sound for those with hearing loss, and a future where hearing aids will be seen as both fashionable and desirable.

Nick Hunn – a wireless enthusiast
Nick Hunn has over twenty years’ experience of mobile and wireless communications and a further ten of product design. His passion remains technology and its application, particularly with respect to employing wireless to make products and services easier to use. Key areas of interest are eHealth, especially in the development of consumer medical devices, Smart Energy, Machine to Machine (M2M) and Internet of Things (IoT) applications and the emerging markets of wearables and hearables.

“Having worked with wireless for over twenty years I’ve seen the best and worst of it and despair at how little of its potential is exploited. I hope that’s about to change, as the demands of healthcare, energy and transport apply pressure to use wireless more intelligently for consumer health devices, smart metering and telematics.”

Nick Hunn
Dear Sir or Madam,

“Steer with Success” – that is this year’s dictum that Helena Solodar, Program Committee Chair for AudiologyNOW! 2015, has invited attendees to act on. We are all striving to be successful by steering, guiding, and leading in a targeted manner. As the organizer, you are faced with the big challenge of steering and guiding every year. As attendees, we are grateful that you do, for without your commitment and your organizing skills, successful networking would not be possible. The result is evident already before the convention starts: your program is excellent! “Steering with Success” also applies to every single attendee. Acting as a proficient partner, we are guiding our customers along the way of rehabilitation. The result is a happy customer who is able to hear again. We can give him reassurance due to our profound knowledge in audiology as well as our intuition.

Success through further education

Those who want to steer with success must continue their education and keep their technical skills up to scratch. AudiologyNOW! 2015 is the ideal platform to get first-hand information on innovations concerning matters of audiology and diagnostics. Further training and successful sharing of expertise are the primary concerns of the European Union of Hearing Aid Acousticians (EUHA). For almost 55 years, we have campaigned for qualified and specialized further education and vocational training for hearing aid professionals. One of the EUHA’s hallmarks is a variety of further training and continuing education courses and conventions offering hearing aid acousticians, after completing their journeyman’s or master craftsman’s exams, a chance to successfully handle and implement any changes resulting from the swift progress in technology and fitting procedures. The EUHA is an optimal partner for supporting people with impaired hearing in getting rehabilitation based on hearing aids and accessories, continuing to improve the benefit derived from the provision of hearing systems, and considerably increasing people’s quality of life. The EUHA offers a platform for learning and networking.

Invitation to Europe

The centerpiece of our work is the International Congress of Hearing Aid Acousticians, the focal point of our trade in Europe that has acquired international renown. Fully qualified hearing aid acousticians (master craftsmen and graduates) are its main target audience. More than twenty lectures, a roundtable talk, and educational sessions will be on offer – a good opportunity to collect continuing education units on a European level. In general, at our Congresses, we discuss a broad range of topics. Speakers from around the world present groundbreaking results of the latest research in audiology and medicine, with strategies for improving hearing aid fitting and connectivity in modern communications solutions being the main topics. Apart from the expert lectures, the accompanying industry exhibit featuring more than 100 exhibitors is an additional attraction for participants.

Further information is available from: www.euha.org/events/

Fitting in well with the idea of successful work, you are cordially invited to join us in Nuremberg – as an attendee, a speaker, or exhibitor. The deadline given in our Call for Papers is March 27, 2015. You may submit your suggestions to info@euha.org, enclosing a one-page (A4) abstract. I should like to wish all of you success for AudiologyNOW! 2015, and look forward to meeting you in Nuremberg, at the 60th International Congress of Hearing Aid Acousticians.

Martin Blecker

This year, the Congress, held for the 60th time, is scheduled for October 14-16, 2015, in Nuremberg, Germany. Some 7,500 attendees from approx. 90 countries are expected to take part in the Congress.
North American “giant” Costco settles in Spain

THE US RETAIL GIANT COSTCO, WHICH HAS MORE THAN 400 AUDITORY CENTERS THROUGHOUT ITS NETWORK OF 600 WAREHOUSES AND HAS ENJOYED A 26% ANNUAL GROWTH IN THE SALE OF HEARING AIDS, HAS BEGUN ITS IMPLANTATION IN SPAIN BY OPENING TWO LARGE ESTABLISHMENTS, ONE IN SEVILLE, ANDALUCÍA, AND THE OTHER GETAFE, NEAR MADRID, WHICH WILL ALSO SERVE AS THE HEADQUARTERS FOR THE GROUP IN SPAIN. THESE OUTLETS ARE DEDICATED TO THE SALE OF A WIDE RANGE OF RETAIL PRODUCTS, FROM FOOD TO OPTICAL PRODUCTS GOODS.

Costo’s overall figures provide an overview of its scale worldwide in the field of retail: with a total of 161,300 employees and a turnover of €76,800 million, it has an estimated client base of 67 million customers and is now present in nine countries across several continents (United States, Mexico, Canada, United Kingdom, Spain, Korea, Taiwan, Japan and Australia). It has a total of 622 retail stores in the United States alone, and is considered the second largest retail firm in that country, and seventh worldwide.

Last May, it already established a foothold in Spain, and more precisely in Seville, where it is already providing audiology services thanks to a practice integrated into its warehouse, so that, among its many other services, it also provides an “independent optician and optometrist” service. It is now heading for the Spanish capital, with a second complex in Getafe, which will cover approximately 14,000 sq. m., in addition to another 2,000 sq. m. to host its Spanish headquarters. According to Getafe City Council, who have signed an agreement with the multinational to help it set up there, Costco hopes to recruit a total of 420 employees for the former and 100 for the latter.

LIMITED PRODUCT CHOICE

Costco’s business concept is based on “warehouses”, which are approximately 13,000 sq. m. large and provide multiple services, including audiology.

Costco’s business model is based on a principle of limited product selection: it offers a limited range of items, with less products than in traditional supermarkets which means it...
can offer a very large range of different types of products, but with restricted choice for each of them. Another key difference is that it is based on the principle of membership. Customers must be either Gold Star members (for private individuals, families or students) or Business members (for companies and freelancers), with subscription prices of 30 and 25 euros respectively, VAT included. Once they are members, customers can purchase “Kirkland signature” products, the company’s brand name, which the group describes as “offering the same level of quality, or higher, as other leading brands for products as varied as juices, biscuits, coffee, cookware, furniture, clothes and detergents”. The group further states that they are “price leaders”. On average, their “warehouses” as they call them, are approximatively 13,000 sq. m.

Costco publishes a magazine for its customers, featuring all its special offers and the latest news in the field of audiology (see pictures). This magazine is informative in nature, and as such, is not directly related to specific brands or products, but rather aims to provide information relating to auditive health and quality of life.

Costco was founded in 1983 in Seattle (Washington), and it is listed on the NASDAQ Stock Market. It operates as a private club with the sole requirement that its customers have to sign up as members.

NINETY-DAY TRIAL FOR HEARING AIDS
The audiology services provided by Costco are based on the following principles (in this order): price; “premium” technology with a series of “free” services, which include product demonstrations, hearing tests, follow-up appointments, hearing aid cleaning and check-ups, coverage for loss or malfunction, varying periods of guarantee, ten batteries for each device purchased, and a ninety-day trial period.

Through their website (www.costco.com), they encourage the general public to perform regular hearing tests and present their different types of devices (open, BTEs, IEs), batteries, “Bluetooth accessories”, as well as a catalog of the products provided by their suppliers, informative videos, and a calendar of upcoming events by location.
**Inventis Cello – A masterpiece of audiometer**

The Italian company Inventis introduces its new diagnostic audiometer Cello, PC or iPad controlled.

Pure tone and speech audiometry via air and bone conduction or free field; video-VRA test, High-frequency audiometry and QuickSIN® test. These are only some features of the new diagnostic audiometer Cello, the latest instrument joining the Inventis “orchestra”, together with Piano, Harp, Bell and Piccolo audiometers and Clarinet, Flute and Viola middle-ear analyzers. Inventis has been developing and manufacturing diagnostic devices for the audiology and ENT market for ten years, and it is currently represented in more than 50 countries. The company has ever since shown a particular attention to the innovation and the design of its products. Cello, the audiometer with colored covers that you can hang on the wall, is just the most recent expression of it.

**Computer and iPad® control**

Connect Cello to the USB port of your Windows® computer and you are ready to go: no driver and no additional cable required. You can control Cello through the Maestro module’s amazingly user-friendly interface, available for Daisy and Noah. The Maestro app, available on the Apple® App Store®, can be used to control Cello for pure tone and speech audiometry directly from your iPad®; it features a complete patient database, while also allowing you to print professional reports and export data to Noah and Daisy.

**Video-VRA**

With Cello, in few minutes you can build a video-VRA system with unlimited possibilities for customizing the images and videos used as reinforces. Everything is controlled through the Maestro module, simply connect up to three displays to your computer to provide the reinforces.

**Hang it on the wall!**

Decorate your sound booth with Cello! Available with different changeable colorful and stunning magnetic covers, you can easily hang Cello on the wall using the featured VESA mount or the specially designed transducer holder. [www.inventis.it](http://www.inventis.it)

**Dynamic Ear introduce the first commercially available Acoustic Leakage Tester (ALT)**

Ensuring the correct fit of custom moulds should be carried out on every pair sold however this is not typically the case. Factors limiting the use of leakage testers are size, weight, complicated tubes and noise. When in use they can cause pain for the client due to over or under pressurisation resulting in few mould manufacturers or impression makers having the necessary equipment or inclination to check fit.

Dynamic Ear Company, leaders in flat attenuating passive filter technology, shooting filters, universal fit HP solutions and Dynamic Sound Technology will introduce the first commercially available acoustic leakage tester at AudiologyNow 2015.

Designed for use by Audiologists, custom mould manufacturers and anyone supplying HP solutions, the ALT from DEC is a portable, silent leakage test system for use with both custom moulds and universal tips. Running on an iPod ALT provides single button measurement and automated calibration routine, ensuring accurate results every time. Comfort and correct fitting are paramount for the client; being an acoustic system DEC’s ALT eradicates pain and misfitting due to over and under pressurisation.

Health and Safety departments wishing to train employees on the correct fitting and insertion of universal fit hearing protection can use ALT with DEC’s own brand ‘Crescendo’ reusable hearing protection as it is fully compatible with all DEC solutions. DEC’s ALT package includes iPod, sensor unit, calibration tool and instructions housed in a smart carry case. Each system comes with a 2 year limited warranty and priced at $479.

For demonstrations and further product information DEC can be found on booth 203 at AudiologyNow.

**About Dynamic Ear Company B.V and Crescendo.**

Based in Delft, The Netherlands Dynamic Ear Company (DEC) develops and manufactures innovative hearing protection and sound management solutions for musicians, industry, military and leisure and almost every application where loud sounds can cause permanent hearing damage. DEC filters change the industry of modern hearing protection by providing unprecedented “flat attenuation”. This allows users to hear sounds in a natural but still a safe way.

DEC products include flat attenuation filters, industrial filters; automatic variable mechatronic filters, balanced armature earphones and accessories. The DEC products are available through our worldwide network of...
Europlasma presents Nanofics 110® PFOA and PFOS free nanocoatings

Europlasma presents Nanofics 110® PFOA a- and PFOS free nanocoatings to protect hearing devices against corrosion and damage from liquids at AudiologyNow!

Belgium-based Europlasma, a world leader in low pressure plasma technology, is happy to present at AudiologyNOW! its nanocoating technologies to protect hearing devices against corrosion and damage from liquids under the Nanofics® brand name. Nanofics® refers to nanoscaled functionalization into the core of complex shaped materials and products. It is Europlasma’s patented and patent pending nanocoating technology platform, first applied on industrial scale in 1996. Nanofics® technology is widely used by Europlasma’s customers to corrosion protect electronic devices, or to make technical textiles and filtration materials liquid repellent.

Now Europlasma is leading the way to even more environmentally friendly solutions with the development of a new family of water repellent nanocoatings which are completely free from halogens. Europlasma just received funding from IWT, the Flemish government agency for Innovation by Science and Technology, to boost this development.

The Nanofics 110® coatings for hearing devices are highly water repellent (water contact angle of 110 degrees according to ASTM D5964) and highly oil repellent (oil repellency level 6 according to ISO 14419) fluoropolymer type of nanocoatings deposited by low pressure plasma technology. The unique aspect of these coatings is that they are completely free from PFOA and PFOS. Traditional nanocoatings with high levels of water and oil repellency are derived from long molecular chains which contain traces of PFOA and PFOS. There is a general trend to move away from these chemistries for health reasons.

Now Europlasma is leading the way to even more environmentally friendly solutions with the development of a new family of water repellent nanocoatings which are completely free from halogens. Europlasma just received funding from IWT, the Flemish government agency for Innovation by Science and Technology, to boost this development.

Europlasma offers a range of nanocoating machines fit for mass production. The processing costs are typically below 10 eurocent per coated hearing device.

For technical and/or commercial inquiries please visit our booth number 209 at AudiologyNOW!, or Kristof Hoornaert at kristof.hoornaert@europlasma.be.

For press inquiries, please contact our marketing representative Gretel Matthys at press@europlasma.be.

VitaSound Personal Audio Enhancers™

Introducing the next generation of Assistive Listening Devices.

Hear TV and phone calls, and converse in noisy environments like never before. Patented Neuro-Compensator® technology makes it all possible.

VitaSound TV delivers audio from television using 2.4GHz low-delay wireless technology.

VitaSound TALK delivers clear conversations in noisy environments and phone conversations with Bluetooth connection, as well as streaming music.

VitaSound All-in-One delivers all features in a multi-functional device.

VitaSound WiMic™ is a wireless microphone that works with all our Personal Audio Enhancer products to bring wireless audio from a distant speaker. The perfect accessory that can broadcast to multiple receivers simultaneously.

Leading edge technology and leading edge design.

We have incorporated powerful software technology into a sleek, lightweight, and easy-to-use hardware design.

PLEASE VISIT US AT AUDIOLOGY NOW IN SAN ANTONIO, TX BOOTH 269.

www.vitasound.com
Dreve Otoplastik GmbH

Dreve Otoplastik provides exceptional materials, equipment and solutions for manufacturing earmolds. ‘Innovation in Tradition’ is our guiding principle and the basis for all Dreve technological and product developments. Founded in 1949, we are a family run company for world class medical products. Dreve Otoplastik has an experienced background in the hearing health marketplace and ties to adept German engineering and innovations. We are the expert in customized earmolds, hearing protection, and hygiene care.

Dreve presents new and innovative solutions at the Audiology NOW! AAA conference in San Antonio, Texas. One product highlight is the new and super thin VarioTherm® RIC earmolds.

New AIRrival: Dreve has integrated an automated milling process for the manufacturing of thin-walled and technologically demanding RIC earmolds in its laboratory. The innovative milling procedure offers a process controlled manufacturing of thermoplastic materials, like Dreve’s VarioTherm®.

Process Highlights:
• Highest precision of sophisticated earmold parts (like skeleton as very fine earmolds)
• Best surface finish
• Digital data transfer and processing
• Digital process for short manufacturing times
• Reproducible and traceable

Discover Dreve’s milling process here: https://www.youtube.com/watch?v=lyFQwQeoyfK

With the new digital manufacturing technology, the Dreve lab achieves maximum precision in earmold manufacturing and incomparably thin walls <1 mm. Dreve manufactures earmolds for RIC systems that are cosmetically very appealing. Traditional / manual manufacturing could never achieve comparable results.

Earmold highlights:
• Almost invisible in the ear
• Less is more! – Ultra-thin walls
• Comfortable fit

Dreve also produces super thin RIC-AIR earmolds from its proven material, FotoTec®.

Come and visit Dreve Otoplastik at Audiology Now! AAA, Booth no. 367!

Smart Optics

“Outstanding quality coupled with fairness”

In the dental and audiology sector and also in the electronics industry our products have become firmly established owing to their efficiency and quality. Our many years of experience and the constant dialogue with our clients help us to improve and continue to develop our products with a special focus on the client, the quality and the future. Meeting client-specific requirements and finding new, innovative solutions are the challenge we set ourselves every day, and are thus part of our core competence. We focus on implementing projects rapidly and in close cooperation with our clients and development partners in a goal-oriented manner.

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At this year’s AAA in Texas the company smart optics from Germany presents their scanner ds production for the production and the duo scan to the hearing care professionals. Both scanner impress with their speed to generate accurate 3D-data of ear impressions, but also impress with their fairness, because: follow-up costs or license fees are completely eliminated, while maintaining “Made in Germany” quality. For a simplified data exchange provides the new FTP module. Users can now upload their created data to a server in order to use them for further processing or visual purposes. Whether the prospective user is a beginner or a professional, the simple multilingual user interface simplifies the handling so that training can be omitted. The smart optics sales team Britta Welz and Matthias Koch (booth # 574) are available to answer questions and give visitors an insight into new developments.

**AMPLIVOX**

New Amplivox Otowave 202-H Tympanometer

Amplivox, is pleased to introduce the **Oтовave 202-H Tympanometer**.

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The Oтовave 202-H will enhance the already very successful Oтовave range of impedance products available from Amplivox.

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**SIARE**

AudiologyNOW! Special - March 2015 - 29

**New loudspeakers, amplifier and acoustic filter for hearing test rooms**

SIARE designed 3 new products for measurements in hearing test rooms:

- The Alpha 22 HR loudspeaker, a sphere of 22 cm diameter which efficiency is 94 dB and which is very dynamic.
- A compact audio amplifier: the DELTA A2 model. It has 2 channels, 80 Watts per channel, and its background noise is weak.
- The HPC1 acoustic filter, which enables to pair loudspeakers together.

SIARE includes a research and design department in order to meet specific needs both at technical and acoustic level.

Several audiology brands already called SIARE to get their own model developed in order to equip their hearing test rooms.

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The website for hearing healthcare professionals

This English-language site, aimed at hearing care professionals throughout the world, provides continuously updated quality international content. Using a network of local correspondents, the site provides news, technical and medical articles, interviews, videos and industry event agendas by country. An excellent way of staying informed: www.audiology-worldnews.com

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FREQUENTLY RELATED TO PAIN AND MYOFASCIAL TRIGGER POINTS, SOMATOSENSORY TINNITUS IS A VERY COMMON TYPE OF TINNITUS THAT REQUIRES SPECIFIC ASSESSMENT AND TREATMENT PROTOCOLS. MEDICAL HISTORY SHOULD INVESTIGATE PAIN IN THE HEAD, FACE, CERVICAL SPINE, AND SHOULDER GIRDLE REGIONS, WHILE PHYSICAL EXAMINATION SHOULD ASSESS THE PATIENT’S POSTURE, THE PRESENCE OF MYOFASCIAL TRIGGER POINTS, AND TINNITUS MODULATION. PHYSICAL THERAPY SHOULD BE CUSTOMIZED ACCORDING THE PATIENT’S HISTORY AND PHYSICAL EXAMINATION.

THERE ARE ESSENTIALLY TWO TYPES OF TINNITUS WHERE PHYSICAL THERAPY IS RECOMMENDED: SOMATOSENSORY TINNITUS AND TINNITUS RELATED TO EMOTIONAL FACTORS. SOMATOSENSORY TINNITUS IS CAUSED BY MUSCULOSKELETAL DISORDERS, OF WHICH MYOFASCIAL PAIN SYNDROME IS ONE OF THE MOST COMMON. THIS SYNDROME IS CHARACTERIZED BY REGIONAL PAIN AND MYOFASCIAL TRIGGER POINTS (TPS), WHICH ARE HYPERSENSITIVE NODES IN A PALPABLE AND TENSE MUSCLE BAND THAT PRODUCE BOTH LOCAL AND REFERRED PAIN (TRAVELL AND SIMONS, 1998).

IN RECENT STUDIES A STRONG RELATIONSHIP HAS BEEN OBSERVED BETWEEN TINNITUS AND TPS (ROCHA AND SANCHEZ, 2007, 2008, 2012). A PERSON WITH TINNITUS IS NEARLY FIVE TIMES MORE LIKELY TO PRESENT TPS, WHICH OFTEN PRODUCE A MODULATION IN THE INTENSITY OR TYPE OF TINNITUS WHEN PALPATED. INTERESTINGLY, MUSCLES LOCATED NEAR THE HEAD ARE THE MOST LIKELY TO PRODUCE SUCH MODULATION.

THE ASSOCIATION BETWEEN TINNITUS AND PAIN, REGARDLESS OF THE PRESENCE OF TPS, HAS BEEN DEMONSTRATED BY SIMILARITIES IN THEIR PATHOPHYSIOLOGY, QUALITATIVE FEATURES, AND TREATMENT APPROACHES. PATIENTS WITH TINNITUS ARE ALMOST THREE TIMES MORE LIKELY TO EXPERIENCE PAIN, AND THE IMPROVEMENT OF TINNITUS IS DIRECTLY RELATED TO THE IMPROVEMENT OF PAIN (ROCHA E SANCHEZ, 2012).

A SIMILAR DIRECT RELATIONSHIP IS FOUND IN BRUXISM, WHERE PATIENTS WITH OROFACIAL PAIN ARE MORE LIKELY TO HAVE TINNITUS (CAMPARIS ET AL., 2005).
AUDITORY AND SOMATOSENSORY PATHWAYS
The association between the auditory and somatosensory pathways occurs due to subcortical connections in the dorsal cochlear nucleus. This key point contains multitasking neurons that receive signals from both the auditory and the somatosensory pathways, many of them from the trigeminal ganglion. This would be the reason why bruxism can cause or modulate tinnitus. The shorter the interval between the stimulus of one pathway relative to the other, the greater the interaction between them (Koehler et al., 2013).

HISTORY AND PHYSICAL EXAMINATION
History and physical examination are the basis for investigating somatosensory tinnitus. Medical history should determine if the patient has pain and if it is located in the head, face, neck, or shoulder girdle. The patient should also be asked whether the tinnitus started before, after, or simultaneously to the pain. This can help determine whether a muscle disorder is causing the tinnitus. It is interesting to investigate whether the tinnitus is on the same side as the muscle tension or pain, which is often the case in somatosensory tinnitus.

The patient’s history may show that the tinnitus started after a head or neck trauma, a dental procedure, cervical manipulation, or periods of intense bruxism. The patient may also report a modulation of tinnitus during or after using a computer (poor posture), using a different pillow, or in periods of more intense pain.

Physical examination should start with an assessment of head and upper limb posture. Head lateralization or protrusion and shoulder elevation or protrusion should be investigated. Physical examination also includes modulation tests performed in a silent room where the patient can clearly perceive the tinnitus. Grades from 0 to 10 in the visual analogue scale (VAS), assessed before and during the test, help determine whether the intensity of tinnitus increases or decreases. Decreasing the intensity of tinnitus during testing seems to be an important condition for achieving significant therapeutic results.

TPs are investigated in the splenius, sternocleidomastoid, trapezius, infraspinatus, masseter, and temporal muscles of the head and neck. During palpation the patient should be asked whether the tinnitus modulates or not. The professional should receive specific training to perform this type of evaluation. Modulation of tinnitus can also be investigated through active mandibular (opening, closing, protrusion and lateralization) and cervical (flexion, extension, rotation and lateralization) movements held for a period of up to 5 seconds. Isometric contraction of the head and jaw area, eye movements (gaze-evoked tinnitus) and facial movements can also be performed.
to investigate modulation. A test should be made with stretching exercises held for 30 seconds to assess changes in the intensity of tinnitus. The exercises should focus primarily on the neck and shoulder area. Bruxism and other temporomandibular disorders should be assessed by an otolaryngologist so that, if necessary, the patient can be referred to a dentist and/or physical therapist. Signs like a jagged tongue, dental attrition, and a linea alba in the jugal mucosa; limited, deviated, or painful jaw opening; muscle pain, either spontaneous or on palpation; and joint crepitation should be investigated.

Tinnitus modulation can be investigated using active mandibular and cervical movements.

Finally, a normal audiometry in the presence of tinnitus and pain leads to a diagnosis of somatosensory tinnitus, a condition that can be effectively treated with physical therapy.

TREATMENT
An evidence-based treatment called myofascial therapy is now available to release TPs related to tinnitus (Rocha and Sanchez, 2012). This is a manual therapy based on applying...
Complementary therapies

Specific techniques for the temporomandibular region have also been reported in several published papers. In the case of tinnitus related to emotional factors, physical therapy can help improve anxiety and depression by teaching patients deep diaphragmatic breathing techniques, the countdown technique (counting from 60 to 0), meditation (using images and words), Jacobson’s progressive relaxation, and mindfulness.

“Hypermodulating” patients, i.e. those that present modulation in all tests on physical examination, require a different approach. These patients should first receive medication before being referred to physical therapy. Physical therapy should be customized according to the findings on clinical examination, and the physiotherapist needs to gain experience on the subject. Treating patients with somatosensory tinnitus is not limited to reducing pain or muscle tension. These are individuals who experience a lot of anxiety and doubts over their symptoms, and the physical therapist should be prepared to assist them.

In conclusion, it is important to note that somatosensory tinnitus should be addressed by a multidisciplinary team, and its improvement is closely related to the duration of symptoms. Therefore, it is essential that otolaryngologists be prepared to assess this type of tinnitus, referring the patient to a physical therapist as soon as possible. Furthermore, it should be remembered that medication alone in cases of somatosensory tinnitus does not treat causes such as postural, vertebral or articular disorders.

Carina Bezerra Rocha, Specialist physiotherapist, M.Sc., Ph.D. from the Medical School of São Paulo University (USP), Brazil.

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Boneva, 2000), and auriculotherapy (Okada et al., 2006). Digital pressure to TPs, followed by myofascial manoeuvres similar to stretching exercises. Dry needling has also been widely used in clinical practice to treat tinnitus due to TPs, but scientific evidence of its effectiveness is still lacking. Other approaches with demonstrated effectiveness against somatosensory tinnitus (regardless of the presence of TPs) include atlas therapy (Kaute, 1998), TENS (transcutaneous electrical stimulation) near the ear region (Herraiç et al., 2007), osteopathy/ chiropractic, massage (Kessinger and digital pressure to TPs, followed by myofascial manoeuvres similar to stretching exercises. Dry needling has also been widely used in clinical practice to treat tinnitus due to TPs, but scientific evidence of its effectiveness is still lacking. Other approaches with demonstrated effectiveness against somatosensory tinnitus (regardless of the presence of TPs) include atlas therapy (Kaute, 1998), TENS (transcutaneous electrical stimulation) near the ear region (Herraiç et al., 2007), osteopathy/ chiropractic, massage (Kessinger and

Active cervical movements can also modulate tinnitus.
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