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Welcome to our Pre-Convention Issue of Audiology Today where you will find all the important information you need to know to attend our Washington DC extravaganza! Cast a positive “vote” for the profession of audiology! Make plans now to join thousands of your colleagues immersed in education and enjoyment at the acknowledged center of the audiology universe from March 30th through April 2nd at the Academy’s 17th Annual Convention & Expo. Everything you need to know to get the most out of this exciting opportunity can be found between pages 29-37 of this issue. Don’t miss it!
The Price of Autonomy in Dollars and Sense

Richard Gans, Ph.D., President, American Academy of Audiology

The start of a brand new year is a good time to communicate with Academy members about key issues and the plans for the year ahead. I would like to review several of the issues which I believe are important for you to know about, and more importantly, what actions the Academy is taking. I hope that you will have a better understanding of what your Academy is doing to move the profession forward with its dollars and sense.

Direct Access—The Hearing Health Accessibility Act

The new Congress is now in place. We are well positioned to continue our efforts to move this legislation forward. We will work with ADA and ASHA to ensure that every audiology resource is used to make this bill become a reality. This past year our Political Action Committee (PAC) raised twice the money than ever before, thanks to your generous contributions. This allowed us the opportunity to educate many Members of Congress about the benefit of direct access through the Medicare Program for audiological services. Now, the effort must begin in earnest.

Our PAC Board, Ambassadors, Government Relations Committee, Health Policy Director Jodi Chappell and lobbyist Marshall Matz are single-minded in their focus on this effort. Our goal was to raise $100,000 each year for the next two years for this session of Congress. Six months into the campaign, we are more than half way there. We cannot rest or become complacent. It is possible that a correction bill may come forward some time during this Congress to correct the problems within the Medicare Prescription Drug Bill. We hope the Hearing Healthcare Accessibility Act can be attached to such a bill or to a similar vehicle. We will need money and an outpouring of letters, emails and calls to Congress by audiologists and patients to show the groundswell of support for this legislation. Please consider making your PAC donation for 2005 and remember your contribution represents the future of your profession. Also, stay alert for Academy communications and updates. We will keep you informed when we need your actions and those of your patients.

Economic Summit: Planning for the Future

The Academy’s 2004-05 FY budget is $5.6 million dollars. The budget and the report by Board member-Treasurer Helena Solodar are in this issue of Audiology Today (page 8). Please take time to look at it. It will give you insight into the workings of the Academy and how revenues are generated and spent. It is important for members of any professional society to be aware of the realities of the business of their association and the value in membership. The Academy now has surpassed 9,600 members, an all time high. With each new member and the profession’s growing reliance on the Academy for leadership in direct access, government, coding, reimbursement and accreditation issues, the cost of providing these services is growing. In fact, the actual cost of providing each member with the journals, advocacy support in government and reimbursement, etc., exceeds the annual dues by approximately $80 per member. There are many non-dues generating activities which bring revenue to the Academy, including convention registration and exhibitor fees, sale of brochures, website and journal advertising, as well as a number of others. It is those revenues that create the financial stability and funding of reserves, while allowing dues to remain stable with only nominal increases every few years.

In recognition of the need to remain visionary and fiscally responsible, an economic summit was held in October. Brad Stach, Gail Whitelaw and myself, as well as past-presidents Barry Freeman and David Fabry and Academy Treasurer Helena Solodar participated. Our executive director, Laura Fleming Doyle and key staff were also in attendance. A professional association governance consultant served as our facilitator for the summit. Numerous opportunities for non-dues revenue were identified. Many of these are potentially exciting scenarios that could bring not only significant revenue but much valued services and products to our members. I have established several task forces which will be working on the viability of these projects and establishing member interest. They will make recommendations to the Board of Directors in March. The first consideration is to ensure that any generator of revenue properly reflects the integrity and prestige of this Academy. In response to a growing concern by Academy members regarding commercialism of the Academy’s electronic and print media, a task force has been charged to evaluate the Academy’s advertising policies, and, in particular, comparing our policies to those of other health care or medical societies.

Commitment to Ethics: HIA Develops Guidelines

Since the ethical task force was created several years ago and the joint AAA and ADA ethical guidelines were established, we have seen a change in how we as a profession view our relationships with manufacturers. The Hearing Industries Association (HIA) has worked closely with the Academies dur-
ing this time, recognizing that the profession and industry were changing. At our October Board of Directors’ meeting, HIA Executive Director Carol Rogin met with us and provided us with a copy of the new HIA model industry guideline. The HIA document follows very closely the AAA/ADA Ethical Guidelines. The difference will be in its application. The HIA is a trade association, not a professional membership society. Unlike our membership, their members’ adherence is completely voluntary. Academy members may wish to have discussions with their hearing aid vendors to learn whether they will adhere to the HIA model guidelines. I believe you will soon see third party payers making decisions about which manufacturers to put on contract or to allow bidding for contracts based on their policies. Just as government and third party payers forced the pharmacology-physician relationships to change, so will the hearing aid-audiology relationships need to change as audiological care is recognized as a fundamental health care benefit.

**The relationship between the Accreditation Council on Audiology Education (ACAE) and the Council on Academic Accreditation (CAA) -ASHA Educational Summit**

In January 2005, the CAA and ASHA held an educational summit. Several of our members have asked why the Academy did not participate as a sponsor. I would like to take this opportunity to explain the history and rationale of this decision. Last spring, we were invited by CAA/ASHA to participate in a planning session for an educational summit on audiology education. We collaborate with ASHA on professional issues whenever possible, such as CPT codes, direct access and the hearing aid tax credit bills. While we appreciated the invitation, we could not accept the invitation to be a co-sponsor without being disingenuous to all the parties involved.

This Academy, along with the Academy of Dispensing Audiologists, as equal stakeholders, has committed the necessary funding to create and support the Accreditation Commission on Audiology Education (ACAE). It is our belief that a new Audiology accreditation body, free from the influence of another profession, is critical to the integrity of AuD education. The Chair of the ACAE, Academy past-president Angela Loavenbruck, tells us that the web-based system will soon be ready. Many of our members have already been involved in writing the praxis questions. We are confident that the ACAE will become the accreditation gold standard for AuD education.

We expressed our concerns to our CAA/ASHA colleagues. First, the CAA and/or ASHA could not agree to our request to invite ADA to the planning session. We believed this was critical as ADA is an equal partner in the development and funding of the ACAE. Secondly, and more importantly, we have long held that CAA/ASHA doctoral education accreditation was non-existent and there was not significant differentiation between the master’s degree and AuD requirements. The new minimum standards set by CAA requiring only 75 semester hours for the AuD seems capricious and without evidence to suggest the rationale for a 38% reduction from the 120 hour, 4-year post baccalaureate program that this Academy and the profession has endorsed over many years. Another ongoing problem is the exclusion of audiology preceptors who have chosen to no longer purchase the CCCs, which is a growing majority of the profession. The Academy as well as others has testified to these problems on several occasions at US Department of Education hearings regarding CAA’s status as an acceptable agency for AuD Program Accreditation.

On December 13, 2004, I provided testimony to the US Department of Education’s National Advisory Committee on Institutional Quality and Integrity (NACIQI) on the problems we saw with the CAA’s minimum standards and the absence of a clear and defined competency or outcome-based measures. Barry Freeman presented testimony on behalf of five AuD university programs while Angela Loavenbruck represented the ACAE. The committee agreed with our testimony and requested that the CAA return next December with detailed standards and outcomes based on a survey of the profession and academic programs. Several members of the committee stated that the present CAA accreditation system and linkage to the ASHA purchased certification was reminiscent of “a medieval guild,” was “monopolistic,” and that it was clear that there is a need for competition in the form of an alternative accreditation body. Let the academic marketplace, as consumers, decide which accreditation body is the best. The committee is comprised of 14 university presidents, chancellors and administrators who review accreditation programs for the Department of Education. This is a distinguished group without bias or a preferential agenda.

So in essence, our willingness to assist the CAA/ASHA in fixing their accreditation product would have been contradictory to our efforts to ensure that the ACAE will soon be recognized by the Department of Education as an approved accreditation body. It would have been disingenuous, or at least schizophrenic, to try to fix a system that we were working to replace or at least create a better option. This Academy is absolutely committed to protecting the integrity and quality of an AuD Degree. It is the brand that defines the future of the profession.

**Convention 2005—Washington DC March 30th-April 2nd — Be there!**

2005 Convention Chair Catherine Palmer, along with her committee Chairs and Cheryl Krieder-Carey’s great staff, are coordinating plans for an annual meeting that is not to be missed. Outstanding pre-convention programs, interactive featured sessions, instructional courses and the increasingly popular Poster Sessions are promised to be better than ever. As always, there will be a wide array of social and philanthropic programs including recognition of our student researchers and special events by the Academy Foundation. Please plan to attend this special convention in our nation’s capital. It’s cherry blossom time so many of our members will be bringing their families as well to enjoy all of the activities that the DC area has to offer. See you there!
**Executive UPdate**

**Laura Fleming Doyle, CAE**

**Use Convention 2005 to Reconnect…Professionally and Personally**

**IT’S NOT YOUR FATHER’S CONVENTION**

Last year, I received a comment from a member explaining that he did not attend Convention because he thought it was too expensive. Sure, the Convention costs money, but it’s how much value you receive that determines if it is worth your time and money. If you haven’t joined us in awhile, this is the year to give us another try. We aren’t the same Convention we were 5 years ago.

This year, you will find interactive learning sessions including audience response systems utilized during several of the Featured Sessions; up-to-the-minute research presentations as a result of a later submission process for posters and podiums; presentations classified by one of two levels of difficulty (introductory or advanced); and a new member connection program called AAAconnect.

AAAconnect is a new networking program that allows registrants who are interested in meeting colleagues with similar interests to make a “connection.” This free, interactive online professional networking platform allows convention registrants to search all attendees in the Convention 2005 registration database by keyword, product type, areas of expertise, and more. The system will also look for trends and provide you with information on colleagues who may have an interest in meeting for further discussion on specific topics.

The Convention is scheduled to take place just as the cherry blossoms are blooming. What a prefect time to bring your family to see the Nation’s Capitol. Remember, the museums are all free. So while you are meeting with your friends and colleagues earning your CEUs, your family can be enjoying a lovely break from the routine back home. Not only will you go back refreshed and rejuvenated professionally, but your family will have fond memories of their time sightseeing in DC.

If you haven’t been to Convention in a few years, consider making the investment in your professional future. Consider the time and money that you spend to attend convention an investment in your professional rejuvenation. Come renew old friendships with your colleagues and meet some new friends through AAAconnect. Come see what we are all about. You won’t be disappointed. In fact, I believe you will leave excited and enthusiastic about what the Academy can do for you and what you can do for your profession by being an active participant in the Academy.

Just as your home requires annual maintenance, so too does your professional life. Yes, there is a financial commitment, but the value you take away from that investment should make it more than worthwhile allowing you to reap the rewards throughout the coming year.

The following items were approved during the October 2004 Board of Directors meeting in Reston, VA:

- Changed the By-Laws to rename “candidate” members to “student” members.
- Approved a Whistleblower Policy.
- Approved the 2005 slate of candidates nominated for Board of Directors.
- Reappointed James Jerger as editor of JAAA for 2005.
- Reappointed Jerry Northern as editor of Audiology Today for 2005.
- Approved Pat Feeney as the Minneapolis Program Committee Chair for Convention 2006.
- Amended the Policy and Procedure Manual section regarding Task Forces to stipulate that task force members must be members of the Academy if they are eligible for membership.
- Approved the “Supervision of Audiology Externship Students Position Statement” for select and then widespread peer review.
- Accepted the Position Statement on the “Audiologist’s role in the Diagnosis and Treatment of Vestibular Disorders.”

### 2005 AMERICAN ACADEMY OF AU迪LOGY PRESIDENTIAL CANDIDATES

Lisa Hunter and Paul Pessis, share the spotlight and work together on the current Academy Board of Directors. Academy members are urged to vote on-line or by mail January 19th through February 16, 2005.
Treasurer’s Notes

The Academy’s implementation of the strategic plan includes the budgetary process and prudent financial management. The leadership focuses the budget to meet the critical needs of audiologists under the direction of the Board of Directors and through the work of the various committees and staff. For the 2005 fiscal year,* the Board of Directors has approved a balanced budget of $5,609,095. To operate within this budget, many difficult decisions will have to be made in FY2005 and in the coming years to enable the Academy to continue to meet the growing needs of its members.

A Leadership Financial Summit was held recently to decide how the Academy should fund the many programs necessary to continue to provide the quality services our members have come to expect. The summit discussions reinforced the fact that, currently, the Academy’s two primary sources of revenue are generated from our convention and membership dues. Attention was focused on creating additional quality programs that would benefit members and enable the organization to strengthen and expand its financial structure. These options are being researched and evaluated at this time.

Throughout the year, staff and leadership review year-end projections to ensure that the Academy is operating within the approved budget. In addition, the Academy annually conducts an independent audit to certify that all financial information is consistently prepared according to the highest level of financial integrity.

I thank the American Academy of Audiology’s Board of Directors, Finance Committee and staff for their leadership, support, and hard work in developing and maintaining a balanced budget.

Treasurer, Board of Directors

* the Academy’s fiscal year is July 1 – June 30
MEMBERS OF THE ACADeMY'S MARKETING COMMITTEE MANNED ACADeMY BOOTHS AT THE FALL MEETINGS OF THE AMERICAN ACADEMY OF PEDIATRICS (AAP) ANNUAL CONVENTION IN SAN FRANCISCO, AND AT THE AMERICAN ACADEMY OF FAMILY PHYSICIANS (AAFP) MEETING IN ORLANDO, FL. ALTHOUGH THE ACADeMY HAS BEEN A REGULAR EXHIBITOR AT THE AAFP CONVENTION, THIS WAS THE FIRST TIME THE ACADeMY EXHIBITED AT THE AAP MEETING. REALIZING THE IMPORTANCE IN RAISING THE VISIBILITY OF AUDIOLOGY TO POTENTIAL REFERRING PHYSICIANS, HAVING A STRONG PRESENCE AT THEIR ANNUAL NATIONAL CONVENTIONS PROVIDES US WITH OPPORTUNITIES TO CONVEY OUR EXPERTISE TO MANY PHYSICIANS IN ONE LOCATION. WE ARE WELL AWARE THAT PHYSICIANS TYPICALLY FAIL TO RECOGNIZE THE CONTRIBUTIONS OF AUDIOLoGISTS TO THEIR PATIENTs, AND WE WANT THEM TO UNDERSTAND THAT THE AMERICAN ACADEMY OF AUDIOLOGY IS AVAILABLE TO HELP THEM IN MANY WAYS. OUR EXHIBITING EXPERIENCES OVER THE PAST FEW YEARS HAVE SHOWN US THAT THESE OUTINGS PROVIDE A PLEASANT, FRIENDLY ENVIRONMENT IN WHICH TO CLEARLY AND SUCCINCTLY DESCRIBE TO PHYSICIANS THE UNIQUE QUALIFICATIONS OF AUDIOLoGISTS AND THE ROLE WE PLAY IN DIAGNOsing AND TREATING HEARING AND BALANCE PROBLEMS.

QUESTIONS AT THE EXHIBIT BOOTH FROM PEDIATRICANS ATTENDING THE AAP MEETING FOCUSED ON THREE MAIN AREAS OF INTEREST: (a) THE DANGERS OF NOISE EXPOSURE FOR CHILDREN AND SUGGESTIONS AS HOW TO PROTECT HEARING; (b) INFORMATION AND STATISTICS ABOUT NEWBORN INfANT HEARING SCREENING AND INTERVENTION PROGRAMS; AND (3) SUGGESTIONS FOR EFFECTIVE MEANS OF SCREENING CHILDREN’S HEARING IN THE PEDIATRIC OFFICE. IN GENERAL, PEDIATRICANS SEEMED SURPRISED THAT EXPOSURE TO NOISE FROM EVERYDAY RECREATIONAL ACTIVITIES, APPLIANCES AND TOYS WAS POTENTIALLY HAZARDOUS TO CHILDREN. CONVENTION ATTENDEES REVEALED THAT THEIR OWN ADOLESCENT CHILDREN PLAYED IN SCHOOL BANDS OR ATTENDED NOISY EVENTS SUCH AS DRAG RACING COMPETITIONS AND ROCK CONCERTS. THEY WELCOMED OUR INFORMATION ON THE DANGERS OF NOISE AND THE BENEFITS OF USING HEARING PROTECTION. AS A CONVENTION BOOTH HANDOUT, THE EAR PROTECTION DEVICES PROVIDED BY OUR ACADEMY WERE A HOT ITEM AND DISAPPEARED QUICKLY AS WORD SPREAD ABOUT THEIR AVAILABILITY AT OUR BOOTH.

MANY PEDIATRICANS AND PEDIATRIC NURSES WERE WELL AWARE OF UNIVERSAL NEWBORN HEARING SCREENING (UNHS), i.e. “We’re already doing that.” They were curious, however, to compare their programs with that of other hospitals or states. Some attendees were seeking specific information about UNHS such as the numbers of children who should be identified as deaf or hearing-impaired as well as the numbers of children with significant hearing loss who might be missed. These questions made it clear that audiologists have an opportunity to market our skills and knowledge to physicians by providing information on the efficacy of UNHS programs.

THE AAFP MEETING PRESENTED A WONDERFUL OPPORTUNITY TO DISCUSS THE PREVALENce OF HEARING LOSS AND BALANCE DISORDERS TO MORE THAN 20,000 PHYSICIANS IN ATTENDANCE. GIVEAWAYS AT THE ACADEMY BOOTH INCLUDED PUTTY BUDDY EAR-MOLDS, HEARPENS, HIGH FIDELITY EARPLUGS, AND BOOKLETS ON DIZZINESS.* THE ACADEMY ALSO PROVIDED TOTE BAGS, FOAM EARPLUGS, EDUCATIONAL BROCHURES AND WRITING PENS AS HANDOUTS FOR THE TROUGHS OF CONVENTION-GOERS.

PRACTITIONERS AT BOTH MEETINGS HAD QUESTIONS REGARDING EFFECTIVE IN-OFFICE HEARING SCREENING METHODS AND PROCEDURES. MANY WANTED SPECIFIC RECOMMENDATIONS ON AVAILABLE EQUIPMENT FOR USE IN SCREENING THE HEARING OF THEIR PATIENTS, BUT READILY ADMITTED THAT THEY DID NOT UNDERSTAND THE VARIOUS TECHNIQUES FOR SCREENING HEARING AND WHICH MEASURES PROVIDE THE MOST ACCURATE INFORMATION. SIMPLICITY, EFFECTIVENESS, AND EASE OF USE WERE PRIMARY CONCERNS OF THE PHYSICIANS ALREADY Pressed FOR TIME DURING THEIR PATIENT EXAMINATIONS. SOME PHYSICIANS WITH HEARING LOSS EXPRESSED INTEREST IN LEARNING MORE ABOUT ASSISTIVE DEVICES AND SEVERAL WERE DISAPPOINTED THAT THEY WERE UNABLE TO GET THEIR HEARING SCREENED BY AN AUDIOLoGIST AT THE ACADEMY BOOTH.

IT IS CLEAR THAT MARKETING OUR SERVICES TO PHYSICIANS IS A LONG-TERM PROJECT. ALL AUDIOLoGISTS HAVE AN ONGOING RESPONSIBILITY TO PROVIDE INFORMATION REGARDING AUDIOLOGY AS A PROFESSION, THE HELP THAT CAN BE OBTAINED THROUGH OUR ACADEMY, AND THE HEARING SERVICES THAT WE PROVIDE TO ALL GROUPS OF PATIENTS. MARKETING EFFORTS THAT EFFECTIVELY ADDRESS THESE CONCERNS MAY FACILITATE WORKING WITH OUR MEDICAL COLLEAGUES IN FAMILY PRACTICE AND PEDIATRICS TO PROVIDE OPTIMAL CARE FOR PATIENTS WITH HEARING LOSS.

* Appreciation is extended to Starkey Laboratories, Micromedical Technologies, Etymotic Research, Inc. and Jaco Enterprises.
The Board of Trustees of the AAA Foundation would like to thank all of those individuals and corporations who have contributed to the early success of the 2004-05 Annual Campaign. We are grateful for these generous gifts and pledges, and are excited at the prospect of meeting or exceeding our fundraising goals for the year.

Thanks to Online Membership renewal, it is now easier than ever to give. You can now make a tax-deductible donation when you renew your membership by going to www.audiology.org. Call the Foundation office at 703.226.1049 for online donation assistance.

Our 2004-05 Annual Campaign runs from July 1, 2004 through June 30, 2005, so it’s not too late to be part of our successful fundraising effort. Make your gift today and join the growing ranks of our supporters. Remember your gifts help the AAA Foundation accomplish its mission to raise funds and support programs of excellence in education, promising research and public awareness in audiology and hearing science.

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(Campaign Year: July 1, 2004 to June 30, 2005)
AAA Foundation and Academy Research Committee Announce ARO Audiologist Travel Award Recipients

The American Academy of Audiology Foundation and the American Academy of Audiology are pleased to announce the recipients of the Association for Research in Otolaryngology’s (ARO) Audiologist Travel Awards for 2005. The Awards are offered to defray travel and lodging expense for individuals who are presenting authors for the ARO Midwinter Meeting.

The 2005 Audiologist Travel Award recipients are Lendra Friesen, a doctoral student at the University of Washington, and Rachael Frush Holt, a NIH postdoctoral research fellow at the Indiana University School of Medicine. Friesen’s abstract for the Midwinter meeting is titled “Speech Evoked Cortical Potentials as a Function of Cochlear Implant Channel Number” which examines the relationship between neural responses and speech perception in normal hearing listeners presented with cochlear implant simulations of speech syllables, with varying number of channels. Holt’s submission is titled “Communication outcomes as a function of age at cochlear implantation in congenitally deaf infants and children: Is younger always better?”

The Association for Research in Otolaryngology is an international association of scientists and clinicians dedicated to scientific exploration in the areas of hearing, balance, speech, taste and smell. A wide range of scientific approaches is represented including biochemical, physiological, behavioral, genetics, developmental and evolutionary. The Midwinter Meeting, held annually in February, is a premier research meeting that attracts 1000-1500 scientists from around the world. For more information on these Travel Awards, please contact the AAA Foundation at (703)226-1049 or the ARO Executive Office at (856)423-0041.
THE AUDIOLIGIST’S ROLE IN THE DIAGNOSIS AND TREATMENT OF VESTIBULAR DISORDERS

It is estimated that at least half of the people living in the United States will be affected by vestibular, or balance, problems sometime during their lives. Vestibular problems may affect individuals throughout the life cycle and may occur in infants as well as elderly individuals. Vestibular disorders may be due to syndromes, disease, toxins, or trauma. They may occur suddenly or develop slowly. Disorders of the vestibular system and its interconnections with the brain may cause a variety of serious problems, including falls, imbalance, dizziness, spatial disorientation, and blurring of vision. Vestibular problems can be acute/chronic and debilitating. The National Institute on Deafness and Other Communication Disorders (NIDCD) has deemed vestibular disorders a major public health-care concern. The Human Genome Project has identified over 500 DNA syndromes that affect the audiovestibular system. In the elderly person, balance-related falls are associated with significant morbidity, mortality, and expense to the health-care system.

SCOPE OF PRACTICE

According to the American Academy of Audiology (hereafter, Academy) Scope of Practice, “An audiologist is a person who, by virtue of academic degree, clinical training, and license to practice and/or professional credential, is uniquely qualified to provide a comprehensive array of professional services related to the prevention of hearing loss and the audioligic identification, assessment, diagnosis, and treatment of persons with impairment of auditory and vestibular function, and to the prevention of impairments associated with them” (2004, p. 44).

EDUCATION AND TRAINING

Audiologists should complete coursework and clinical training in their graduate programs sufficient to allow them to perform and interpret diagnostic vestibular function tests and participate in the treatment of patients. Coursework and clinical training should include:
- Anatomy and physiology of the peripheral and central vestibular systems
- Medical disorders
- Pharmacology
- Patient case history and interview technique
- Clinical and electrophysiological test protocols
- Test interpretation
- Biomechanical aspects of equilibrium
- Vestibular rehabilitation theory, and therapy and treatment protocols
- Clinical rotation with audiologists specializing in vestibular assessment and treatment. If available, rotations with otolaryngology, neurology, and physical therapy.

As education and training may vary, audiologists who intend to practice vestibular diagnostics and treatment must ensure that they have acquired the knowledge and skills necessary to do so. This may require additional post-graduate education and clinical training. Practitioners are bound by the Academy Code of Ethics Principle 2, “Members shall maintain high standards of professional competence in rendering services, providing only those services for which they are qualified by education and experience.” Therefore, practitioners should engage only in those aspects of the profession that are within their scope of competence, considering their level of education, training, and experience.

As new technologies are unveiled and best clinical practices emerge, audiologists should ensure that their knowledge and skills are kept current. Principal 2, Rule 2f of the AAA Code of Ethics states, “Individuals shall maintain professional competence, including participation in continuing education.”

PATIENT CARE AND SAFETY

Patients with vestibular and balance disorders may have medical conditions or motion sensitivity that cause them to have adverse reactions to diagnostic or treatment procedures. The AAA Code of Ethics Principle 2, Rule 2b states, “Individuals shall exercise all reasonable precautions to avoid injury to persons in the delivery of services.”

In order to enhance patient outcomes by identifying and addressing safety issues, audiologists are encouraged to develop strategies for unanticipated outcomes with their patients. Communicating risks before and after evaluation and treatment procedures can minimize aggravation for both patients and clinicians.

Code of Ethics Principle 5, Rule 5a states, “Individuals shall provide persons served with the information a reasonable person would want to know about the nature and possible effects of services rendered…. ” Practitioners who conduct or supervise these procedures should have a written plan and specific protocols to alert medical personnel for assistance to ensure patient comfort and safety should the need arise.

Some procedures or patient adverse reactions may introduce the possibility of practitioner exposure to bodily fluids. It is recommended that the practitioner follow the Guidelines for Infection Control in Health Care Personnel (1998), recommended by the Centers for Disease...
patients with vestibular deficits and disorders. The treatment, which has become a standard of care, uses specific exercises to reduce vertigo and to improve gaze and postural stability in individuals with vestibular disorders by facilitating central neural compensation. Canalith Repositioning and Liberatory maneuvers are treatments for the most common form of positional vertigo, Benign Paroxysmal Positioning Vertigo (BPPV). These procedures are designed to correct biomechanical problems caused by displaced otoconia. The maneuvers are designed to move the otoliths from the affected semicircular canal and back into the utricle where they can be absorbed. Vestibular Treatment and Therapy protocols may include, but not be limited to:
  • Canalith Repositioning and Liberatory maneuvers for the treatment of Benign Paroxysmal Positioning Vertigo (BPPV)
  • Adaptation, habituation, and substitution protocols
  • Gaze stabilization exercises to strengthen and set gain of the vestibulo-ocular reflex (VOR)
  • Static and dynamic balance activities

The assessment of treatment outcomes is considered to be an essential part of the clinical practice. It is from assessment of outcomes that we are able to demonstrate efficacy of our treatment efforts. The assessment of treatment outcomes begins prior to management of dizziness and unsteadiness and represents a baseline measurement. These measures are then repeated post-intervention. Outcome measures may be objective and/or subjective. This may include, but not be limited to evaluation of nystagmus, vestibulo-ocular reflex (VOR), static and dynamic postural stability, dynamic visual acuity, patient ratings, and participation restriction/activity limitation questionnaires.

An interdisciplinary approach to the management of dizzy and unsteady patients may include involvement of primary care and medical subspecialties as well as allied health disciplines including physical and occupational therapy for patients with medical, biomechanical, neuromuscular, and orthopedic co-morbidities. Prior to patients undergoing management by the audiologist, any complicating or medical contraindications should be considered and cleared by the appropriate medical disciplines.

**Professional Referrals and Consultations**

Audiologists should recognize that patients might present with physical impairment or medical and psychological conditions that may not contribute to their symptoms. Practitioners are encouraged to have available a network of referral and consulting specialists for patients whose problems are not vestibular and who require additional medical, psychological, or therapeutic expertise. Patients presenting with dizziness, vertigo, or imbalance may have serious medical or even life-threatening conditions. It is incumbent upon the practitioner to be able to recognize the need for appropriate referral.

**CPT Coding and Billing Considerations**

Vestibular function test codes are described in the 2005 AMA Current Procedural Terminology (CPT) codebook (p. 357). They include codes 92541–92584. These codes do not encompass all the tests and procedures that may be used in the clinical and electrophysiological examination of the vestibular patient. The rapidly changing nature of the specialty does not always allow for the introduction of new CPT codes as quickly as tests are developed. In other cases, there may be clinical evaluation techniques that do have a specific CPT code.

The federal Medicare program and the dozens of Medicare payer intermediaries throughout the country may vary in their interpretation of requirements to pay for certain procedures. For example, although 92584, the CPT code for Computerized Dynamic Posturography is not mandated by CMS to be paid for, many but not all regional or state Medicare intermediaries will reimburse for the procedure. The existence of the CPT code alone does not, therefore, mean that the intermediary will reimburse for this code. Recently, CMS has confirmed that a written referral is not...
required. A verbal order will suffice, if the referral is documented in the patient chart/record by both the treating physician and the audiologist. A written referral in the chart, however, may minimize any later discrepancies and may be preferable.

Non-Medicare third party payers often act independent of Medicare guidelines. This may result in increased or decreased services by code, number of units and reimbursement amount to audiologists. Due to this disparity among Medicare and non-Medicare payers and state and regional differences, it is recommended that audiologists and their staff attend or participate in billing workshops offered by their respective Medicare intermediary.

Presently, no CPT codes exist for vestibular rehabilitation therapy (VRT). Historically, therapists have used a group of physical medicine codes, (i.e., neuromuscular re-education) that best approximate the nature of the functional treatment. The present interpretation by CMS of the Medicare law does not provide for reimbursement for treatment by audiologists. This category is also outside of the family of CPT codes, for which audiologists are reimbursed. There are numerous managed care organizations (MCOs) that pay audiologists for VRT using the same physical medicine codes. Audiologists are encouraged to work with their managed care network contracts to include all the services and codes that they will be providing to that MCO and its members.

Reimbursement issues affecting non-payment for vestibular treatment performed by audiologists do not reflect a restricted scope of practice for audiologists but rather a lag in current reimbursement policies by specific insurers. The development and inclusion of vestibular treatment, therapy, or rehabilitation CPT codes, in the future, will hopefully eliminate the present disparity in reimbursement by third-party payers.

**REFERENCES CITED AND CONSULTED**


Chicago: American Medical Association.


The ENG Caloric Controversy—Which is the Better Stimulus: Water or Air?

As recently demonstrated on the Academy “SoundOff” e-mail membership discussion group, the question of which stimulus, water or air, is best for Electronystagmography (ENG) is sure to divide opinions among audiologists. We have long had the option and choice of using air or water stimulus for our ENG patients in each of our test suites. Each of our air and water irrigators have been calibrated to provoke equivalent caloric responses. Our decision and choice of stimulus depends on the needs of the patient. What we have learned may shed some light and provide answers to this provocative question.

In an ideal world, a “standard normal subject” should have the exact same maximum slow-phase velocity measurement no matter how many times they are tested, regardless of test equipment, the caloric stimuli, or the test order. Unfortunately, in the real world clinic, these ideals are impossible to achieve. Nevertheless, carefully controlling those factors that increase spurious test variability must be the aim of every vestibular laboratory. One important factor often overlooked is ensuring delivery of standardized caloric stimuli. In our clinic, because we can use either stimulus interchangeably, it is necessary that both air and water stimuli be calibrated to provoke equivalent caloric responses.

To show how we approached this, we first must introduce two statistical concepts. The first concept is the measure of the coefficient of variability. The coefficient of variability is a reliability measurement that is calculated as the mean of a distribution divided by the standard deviation. As the coefficient of variability increases, variability decreases and the measurement becomes more reliable. In our case, the distribution is the distribution of maximum slow phase velocities measured from normal subjects in response to a given caloric stimulus. As an example, let us assume we measured caloric responses from 100 normal subjects and found that we provoked an average maximum slow phase velocity of 20°/sec, and a standard deviation (SD) of 10°/sec. In this example, the coefficient of variability would be 2.0 (20/10). Recall that two standard deviations is approximately the 95-percentile limit, so therefore 2 SD from the mean of 20 would be 0 (20–(10*2)).

This would mean that there is less than a 2.5% chance that a normal subject would produce a caloric response of 0°/sec. However, if the mean was 20°/sec and the standard deviation was 40°/sec, the coefficient of variability would equal 0.5 (20/40). This would mean that normal subjects would produce the caloric response of 0°/sec about 25% of the time. In this example, it would be difficult to note the differences between a normal result and an abnormal result when the caloric response was 0.

The second concept is the law of large numbers. To calculate a caloric asymmetry, we calculate a ratio. Ratios become more unstable (i.e., less reliable) as the numbers underlying the ratio become smaller.

In the example shown in Table 1, an 8°/sec overall difference between ears (54-46) produced a trivial caloric asymmetry of 8%.

In the example shown in Table 2, the same 8°/sec overall difference between ears (14-6) produced a substantial caloric asymmetry of 40%. The difference between the two asymmetry ratios is the denominator. In the first case, the number was large and in the second care, the number was small. Is the caloric test so reliable that an 8°/sec difference between ears, cannot possibly occur just by chance? (Remember the factors that increase spurious test variability.) The answer is no. This case demonstrates how weak caloric responses can produce artifically large caloric asymmetry ratios, significantly challenging the reliability and validity of the caloric test.

So what can be learned from this? Caloric response distributions must demonstrate high coefficients of variability with maximum slow-phase velocities sufficiently large to produce stable asymmetry ratios. But we certainly do not want our patients to become ill (i.e., there is a limit to how large of a caloric response we want to see). Using this information we determined our protocols shown in Table 3:

With both systems, total eye speeds of less than 47°/sec are considered hyporeactive, and total eye speeds of greater than 260°/sec are considered hyperreactive. These reflect the 5- and 95- percentile limits respectively. These limits are based on a total of 1,067 patients with no evidence of vestibulopathy at the time of their evaluation (i.e. there were no ocular motor abnormalities, no
Table 3

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<th>Water Irrigations</th>
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<tr>
<td><strong>Temperatures:</strong></td>
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<td><strong>Temperatures:</strong></td>
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<td><strong>Flow Rate:</strong></td>
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positional nystagmus, and caloric asymmetries were less than 20%). Moreover, there is little difference in the performance of air or water based caloric tests in terms of the distribution of maximum slow phase velocities elicited by air and water stimuli.

It takes time and discipline to build these kinds of data sets, to establish structured protocols, calibrate and validate stimuli, and monitor for changes in test performance over time. However, in the age of computers and improved data analysis, there is no excuse for not developing your own local normative values and tracking the clinical performance over time. By the way, if you are thinking that you can just use our norms in your laboratory, think again! The data presented in this article are absolutely useless to you without information about our test protocol, our recording conditions, our calibration procedures, our software calculations of slow-phase velocities, or any of the other variables that affect caloric test performance in any given situation. It is impossible to transfer our data to your laboratory to use as normal ENG values. You must establish your own local norms for your clinic operation.

Because we developed equivalent air and water stimuli, our audiologists are free to choose whichever stimulus is appropriate for the patient and the test situation. In general, however, air has become the preferential stimulus in our clinic. Air calorics are easier to manage and appropriate for patients with open mastoid cavities. On the other hand, air stimuli can be loud and exceed patient comfort levels. The air can be an ineffective stimulus in tortuous or obstructed ear canals, or when moisture is present in the canals producing a paradoxical cooling of the canal with warm air stimulation. Water calorics are useful for patients with tortuous ear canals, loudness intolerance or when air stimulation is potentially inadequate. In summary, with careful control and proper calibration, both the air and water-based caloric tests can yield reliable and equivalent test data. However, audiologists must generate local norms for the caloric tests and understand the strengths and weaknesses of each caloric stimulus to protect test reliability and validity, as well as the patient.
UNDERSTANDING VESTIBULAR-EVOKED MYOGENIC POTENTIALS (VEMPS)

Vestibular-evoked myogenic potential (VEMP) testing is based on the vestibulo-collic reflex (VCR), which occurs between the saccule otolith organ and the sternocleidomastoid muscle (SCM). Specifically, the response pathway is from the saccule to the lateral vestibular nucleus via the inferior vestibular portion of cranial nerve VIII. The pathway then extends to the lateral vestibulospinal tract. The reflex arc is completed with the innervation of the SCM by cranial nerve XI, the Accessory Nerve (Colebatch & Halmagyi, 1992). The benefit of measuring VEMPs is an ability to identify lesions of the saccule, inferior vestibular nerve, and descending vestibulospinal pathways including the lower brainstem.

Since the VEMP is actually a myogenic recording from the large SCM muscle, it is quite easy to produce a response with clear P13 and N23 components compared to some other evoked potentials (e.g., ~200 _V amplitude for VEMP vs. <1_V amplitude for ABR). The test is most commonly performed with a click or tone-burst stimulus but has also been observed using a non-acoustic tapping technique.

Based on a unique ability to assess the vestibulo-collic reflex (VCR) pathway, the recording of VEMPs has provided useful diagnostic information on both otologic and neurologic conditions in patients ranging from otologic problems such as Meniere’s disease, superior canal dehiscence syndrome (SCDS), and vestibular neuritis, to neurological disorders such as multiple sclerosis, spinocerebellar degeneration, and migraine. This sound-evoked potential appears robust to significant sensorineural hearing loss; however, it is requisite that patients have a functioning middle ear system to elicit this response. Depending on the disorder, P13-N23 responses may be absent, delayed in latency, reduced in amplitude, or elevated in amplitude. Liao and Young (2004) recently described results from VEMP studies in patients with migraine headaches and reported absent or delayed responses in many of the subjects. Following three months of medical intervention, normal VEMPs were obtained in 90% of the migraineurs.

Interestingly, intense stimulus levels of 95 – 100 dB nHL are typically needed to record VEMPs in the normal population, but for certain disorders reliable responses have been recorded at much lower levels. Brantberg et al. (1999) reports replicable VEMPs in patients with SCDS for stimulus levels as low as 70 – 75 dB nHL. We recently obtained clear and replicable responses down to 62 dB nHL, with stimulation to each ear, for a patient with bilateral SCDS subsequently confirmed with high resolution CT scan. Young et al. (2002) reported that augmented VEMPs may be obtained in patients with Meniere’s disease as the fluid-distended saccule is in closer proximity to the stapes footplate. This is thought to increase the effective stimulus level reaching the saccule.

PATIENT PREPARATION

The skin should be cleansed with alcohol, but abrading is not necessary. There is some variance among labs in terms of placement for the active (non-inverting) and reference (inverting) electrodes. The positive and negative peaks and troughs will invert but the latency will be unaffected. Our preferred electrode montage and contraction of the right SCM sternocleidomastoid muscle.

Interpretation of VEMPs is based on latency or amplitude. As waveform labeling suggests, typical P13 absolute latency is 13 ms, while N23 is usually present at 23 ms. Many clinical vestibular laboratories advocate use of an ‘asymmetry ratio’ calculated as:

\[
100 \frac{(\text{Amplitude}_{\text{left}} - \text{Amplitude}_{\text{right}})}{(\text{Amplitude}_{\text{left}} + \text{Amplitude}_{\text{right}})}
\]

An amplitude asymmetry >30 – 47% is considered clinically significant.
electrode sites include the low forehead – ground, active (non-inverting) – point of SCM attachment at the collar bone and sternum or high forehead, and the reference (inverting) – on the belly of the SCM muscle. It is easier to use large electrodes, many of which come pre-gelled and are used for cardiac and myogenic recordings.

It is helpful to initially identify the SCM muscle and select appropriate electrode placement locations while lifting the head of the supine patient. The patient’s head should be elevated several inches, and rotated to the right causing a clearly visible contraction of the SCM muscle. Once the electrodes have been placed on the right SCM, the procedure is repeated for proper electrode placement with contraction of the left SCM.

With a one-channel ABR system, one side is tested and the electrodes need be changed in the preamplifier box to the other set of electrodes. We have found that it is easier to prep the patient and place the electrodes bilaterally even when using a one-channel system. When using a 2-channel system, you will record/test the ipsilateral side – channel 1, and monitor the contralateral SCM muscle activity on channel 2. Since there is no sound presented to the contralateral side, a VEMP should not be observed.

**PROTOCOLS**

An evoked potential (EP) unit may be used with insert or traditional earphones to present the stimuli and record the SCM muscle response. No masking is necessary in the non-test (contralateral) ear. Fluorescent lights must be shut off to avoid electrical interference and the patient’s eyes are closed during data collection. Background or ambient noise, however, is less of an issue with this large amplitude response compared with traditional ABR testing. It is imperative that there is an appropriate level of contraction of the patient’s SCM muscle ipsilateral to the stimulus during the data collection period. Some authors advocate monitoring of SCM activation during recording to maintain a target level of ~50 microvolts when feasible. We have been able to record reliable VEMPs with the patient in the preferred supine position, with the head lifted and rotated away from the test ear. The test is conducted ipsilaterally with the acoustic stimulus delivered to the right ear when recording contraction of the right SCM muscle.
This requires the patient to turn their head to the left to cause the proper right SCM contraction.

**CODING AND REIMBURSEMENT ISSUES**

Although there is no specific CPT code for VEMP testing, CPT 92585 is most likely applicable. According to the description of 92585 from the AMA CPT Manual (2004), this code is used for “auditory evoked potentials for evoked response audiometry and/or testing of the central nervous system; comprehensive”. The code 92586 is for limited testing. “Comprehensive” suggests bilateral testing and limited unilateral testing.

**SUMMARY**

The VEMP provides diagnostic information that is otherwise unavailable regarding the saccule, inferior vestibular nerve, and VCR pathway. VEMPs are useful for a wide range of clinical application. The test is fast, non-invasive and may significantly affect medical and non-medical management triage. There is an abundance of scientific articles and papers discussing VEMPs mostly in audiology, otolaryngology and neurology journals. Key references are provided below for additional information about this procedure.

**REFERENCES AND SUGGESTED READINGS**


**Figure 1.** VEMP responses obtained from a patient diagnosed with Meniere’s Disease. Results with stimulation to the Left ear (involved ear) were reduced in amplitude relative to responses obtained with stimulation to the Right Ear.

**VOLUME 17, NUMBER 1**

**AUDIOLGY TODAY**

25
The name Ira J. Hirsh is associated with innumerable scientific contributions to psychoacoustics, outstanding mentoring of research scientists, and dedicated service to the fields of audiology, audiology and psychology. Hirsh is recognized as one of the founders of audiology. AT recently met with Hirsh in St. Louis, where he arrived more than 50 years ago and continues to work part-time today. His distinguished career, which included working with such giants as George Bekesy, Raymond Carhart, and Halliwell Davis, included full-time positions at Central Institute for the Deaf (CID) and Washington University where he served as Dean of the Faculty of Arts and Sciences and received the Mallinckrodt Distinguished University Professor award.

As Director of Research at CID, Dr. Hirsh emphasized the importance of combining biological information with rigorous studies of behavior in an effort to understand the interaction between the body and the brain. During his tenure at CID, Hirsh mentored an extraordinary group of researchers and their contributions stand as a legacy of his influence on auditory science.

One of the most widely cited papers in psychoacoustics history is Hirsh’s 1959 article on auditory temporal research. Despite his dedication to basic science research, approximately one-third of the more than 130 publications accredited to Hirsh are clinical in nature, dealing with various aspects of auditory measurements, audiology, deafness, hearing aids, aural rehabilitation, and speech and language pathology.

His personal interests are as diverse as his professional ones. He is fluent in French, loves opera, is an accomplished singer himself, and cuts a mean rug on ice skates. His remarkable intellect and astounding experience are only surpassed by his charming personality. Following our interview with the acclaimed scientist, one thing became abundantly clear – Dr. Hirsh is as passionate today about the science of hearing as he was when he wrote *The Measurement of Hearing* in 1952.

**AT:** How did you become interested in psychoacoustics?

**IJH:** I received an undergraduate degree from NY State College for Teachers in Math and English. Since I had a background in English, I was advised to attend Northwestern and apply for a scholarship in Speech Correction. Audiology was not a profession at that point in time. What an opportunity that was working beside such greats as Ray Carhart and Wendall Johnson!

**AT:** Following completion of your degree in Speech, you entered the Army and worked at one of only four VA hospitals that were conducting what was known as “aural rehabilitation” with soldiers. Tell us about those early days.

**IJH:** Actually, the rehabilitative efforts at military training centers were designated as “auricular training.” The term “audiology” had not been invented yet. The methods for testing hearing were primitive, and speech audiometry had not been developed yet.

**AT:** So you began your career as a clinician. How did you become interested in research?

**IJH:** I was a PhD student at Harvard and S.S. Stevens asked me, “Do you want to have a couple of satisfied customers today, or do you want to have an influence on many people for years to come?” That query made the difference.

**AT:** You worked in the Harvard Psychoacoustics Lab (PAL) with some true pioneers. Tell us about that experience.

**IJH:** The Lab was within the Department of Psychology and involved a number of geniuses such as George Bekesy, George Mille, James Egan and youngsters like Dix Ward, and...
The leadership of that team and generous financial support had a far-reaching effect on psychoacoustics. We lunched around a big table unless our Harvard classes interfered. It was a group that worked hard and played hard.

AT: Early in your career (1952), when there were few texts and no highly developed methods of threshold determination, you undertook the ambitious task of writing the first textbook on audiology called *The Measurement of Hearing*. Halliwell Davis praised your book in his autobiography. After such rave reviews, why didn’t you write another?

IJH: I am not so sure it received rave reviews. I have been asked many times over the years why I didn’t write another. If you read the book, you will notice that other than the diagrams of hearing aids, not much has changed.

AT: Your voice is legendary as the voice on the CID W22 lists? How did you develop those?

IJH: While I would like to take credit for those, I did not develop the lists. I was just “the voice” because I had been a radio announcer.

AT: How were they developed?

IJH: Harvey Fletcher was the head of the acoustics department at Bell Laboratories. At that time, the telephone company had the same interest as we did in making transmission signals that would make speech intelligible. Bell Laboratories had recordings of words and sentences on records that were being used to test and screen school children. The date on those records was 1929. Actually, Grant Fairbanks was in charge of developing the PB lists and those are the lists of 50 words that we continue to use today.

AT: Your legacy includes significant contributions in noise research. You wrote the first American National Standards Institute standard on hearing protection attenuation and your research led to the discovery of “temporary threshold shift bounce.” Please tell us about those efforts.

IJH: Many people had worked on the concept of temporary threshold shift. Patients were exposed to extended periods of loud tones and then we measured their hearing. NIH probably wouldn’t allow that today. Following the exposures, I noted that patients sustained tinnitus and a temporary hearing loss, followed by a recovery. These observations led to the discovery of the threshold bounce phenomenon.

AT: You shared concerns that the scientific base of audiology is eroding. What are those concerns, Dr. Hirsh?

IJH: I am concerned that the emphasis on clinical practice may detract from pure science. One discipline wants a practical decision and the other wants to learn what is beneath the decision. The focus of our work must be more comprehensive than one particular element of science. There is a need to test more than the ear itself. We must have measures of the interaction between the hearing apparatus and the cognitive aspect of hearing.

AT: Your contributions are innumerable. What do you consider to be your greatest contribution to the profession?

IJH: I believe my greatest scientific contribution to be the nature of time and temporal changes on the acoustic message. Everyone knew that people who have a hearing loss do better if one speaks slowly. I questioned, “Why is that?” I would also consider myself a pretty good teacher. I especially enjoyed guiding my students into their dissertations.

AT: After such a distinguished career, what is next for Ira Hirsh?

IJH: Some people have the luxury of planning their entire careers. I never did that. I took advantage of things that looked promising and if that didn’t work, I tried something else. That, my dear, is what I will continue to do.

REFERENCES:

“*The challenge about working with Ira is that you know he has very high expectations of you. But that is OK because he has even higher expectations of himself.*”
–Bill Clark, Director of Research at CID, on IJH

“*It’s been a nice ride.*”
–Ira J. Hirsh
NEW IN 2005

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Washington DC — History, springtime, cherry blossoms, you!

Research Podiums and Posters — An extended deadline this year to bring you the most up-to-date research information. View the abstracts online via the itinerary builder in late January 2005 at www.audiology.org.

Fabulous Foundation Festivities Await You at Convention and Expo 2005

AAA FOUNDATION FOLLIES & SILENT AUCTION
Washington Convention Center
Wednesday, March 30 at 5:30 pm

He sings? She dances? Who knew?! See your friends and colleagues at the top of their game in the first ever AAA Foundation Follies and Silent Auction. This not-to-be missed evening event is guaranteed to provide a myriad of entertaining moments….. and even a few one-of-a-kind auction treasures. Share in the festivities and join us for cocktails, hors d’oeuvres and good company. Tickets are available at www.audiologyfoundation.org for $50 for Academy members and guests ($30 for students).

AAA FOUNDATION CELEBRATION BREAKFAST
Washington Convention Center
Thursday, March 31 at 7:00 am

Enjoy the dawn of a new day by joining the AAA Foundation Board of Trustees for our Celebration Breakfast! All Foundation Benefactors, Foundation Sponsors and the 2005 Research Award recipients are invited as our special guests as we honor their contributions and accomplishments. Start the day off right as we share an elegant breakfast and celebrate the successes of the year! Tickets are $30 for friends and members who would like to join us as we fete our special friends! Go to www.audiologyfoundation.org to purchase your tickets today!

All Proceeds from the Foundation Follies & Silent Auction and Celebration Breakfast support the funding of the Academy’s Research Awards Program.

Don’t forget to stop by the AAA Foundation Booth to learn what the Foundation is doing to advance and support the profession of audiology. Meet your AAA Foundation Trustees and “vote” for the Foundation as it works to raise funds and support programs of excellence in education, promising research and public awareness in audiology and hearing science.

ACQUIRE Knowledge   ADVANCE Science   ACCESS Technology
Independent Satellite Events • Wednesday, March 30, 2005

Association of VA Audiologists (AVAA)
7:30am – 6:00pm
The Association of VA Audiologists (AVAA) is pleased to announce its 5th Annual Meeting in conjunction with the American Academy of Audiology Convention in Washington, DC on Wednesday, March 30, 2005. We look forward to another outstanding meeting including continuing education offerings, presentations from VA and national organization leaders and time to network with your colleagues from around the country. Please make plans to join us. For more information, e-mail Denis.Moore@med.va.gov

Professional Supervisor of Audiometric Monitoring Component (offered by CAOHC)
8:00am – 5:00pm
The Professional Supervisor of the Audiometric Monitoring Component of the Hearing Conservation Program Presented by the Council for Accreditation in Occupational Hearing Conservation (CAOHC). This workshop offers a comprehensive tutorial for audiologists seeking instruction in their role and scope of practice in hearing conservation programs. Presenters will explain how to establish audiometric monitoring programs, review problem audiograms, determine work-relatedness (including OSHA reports), manage databases and integrate with other hearing conservation team players. Case presentations will illuminate details of regulatory requirements and successful supervision of these programs. Attendees will receive copies of CAOHC’s Hearing Conservation Manual and several noise standards. CEUs have been applied for. For more information, see CAOHC’s website at www.caohc.org/professional.html.

National Association of Future Doctors of Audiology (NAFDA)
8:00am – 5:00pm
The National Association of Future Doctors of Audiology (NAFDA) will hold its 6th Annual Convention in conjunction with the Academy’s Convention & Expo 2005 in Washington, DC. NAFDA will welcome more than 1000 Doctor of Audiology (AuD) and research PhD students a day prior to the Academy’s Convention on March 30, 2005. All NAFDA members and Academy attendees are welcome to join NAFDA at an open meeting at 6:00pm on Thursday, March 31st to hear exciting speakers and discuss the exciting future of Audiology. Check the Final Program for room assignments. For more information, email NAFDA@nafda.org

National Association of Special Equipment Distributors
5:00–9:00pm
NASED holds its annual meeting on the eve before the opening of the Academy’s Expo Hall. Attended by the country’s hearing and balance health care equipment distributor members, as well as many of the principal equipment manufacturers, this reception’s highlight is the presentation of NASED’s annual Lifetime Achievement Award, this year honoring David Kemp for his extraordinary lifelong contributions to Audiology and hearing health care. For more information, email mail@hcinstruments.com

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Register online at www.audiology.org! Save money by registering before January 21st, 2005!

ACQUIRE Knowledge  ADVANCE Science  ACCESS Technology
State Leaders Workshop
Wednesday, March 30, 9:00am–4:00pm
Sponsored by:
Healthcare Providers Service Organization
Vote Audiology! Recognized as one of the convention’s premier events, designed to strengthen the voice of audiology, the State Leaders Workshop stands poised to rock the nation’s capital. Hear dynamic speakers share exclusive insights into issues facing the profession and meet with your congressional offices on Capitol Hill. Join us as the State Leaders make audiology’s voice heard! If you are a new state leader, starting a new state organization, or interested in being a grassroots advocate on behalf of the profession, please contact Sherie Gayle at sgayle@audiology.org or call 703-226-1048.

AAA Foundation Follies & Silent Auction
Wednesday, March 30, 5:30–7:00pm
He sings? She dances? Who knew?! See your friends and colleagues at the top of their game in the first ever AAA Foundation Follies & Silent Auction. This not-to-be missed evening event is guaranteed to provide a myriad of moments that will be talked about for years to come. A donation of $50 ($30 for students) will get you food, drink, unforgettable live performances, unlimited laughs and the chance to find the perfect treat at the Silent Auction table. Please contact Kathleen Culver, 703-226-1049 or visit www.audiologyfoundation.org to reserve your place in Academy history. Additional Fee

Opening Night Reception
Wednesday, March 30, 7:00–9:00pm
Whether your politics lean to the left or right, it’s important to get up to speed with what’s happening “inside the Beltway.” We’ve found a delightful solution that will make you feel like a real Washington insider. The Capitol Steps – an award-winning comedy group – smartly skewers Washington’s power elite with a lively evening of comedic commentary. Join us for an evening of fun-filled antics, great food and a chance to “work the room” like a highly-paid politician. Your convention badge gets you “on the ticket” and through the door. Cash bar, business casual attire is suggested. FIRST TIMERS LOUNGE!!

AAA Foundation Celebration Breakfast
Thursday, March 31, 7:00–7:50am
Enjoy the dawn of a new day by joining the AAA Foundation Board of Trustees for our Celebration Breakfast! All Foundation Benefactors and Foundation Sponsors are invited as our special guests for an elegant dining experience. Help us recognize the 2005 Research Award recipients and honor colleagues who have assisted us in reaching our Annual Giving goals. Tickets will be available for $30 for members and friends who would like to join our celebration. Contact Kathleen Culver, 703-226-1049 or visit www.audiologyfoundation.org for reservation information. Additional Fee

General Assembly
Thursday, March 31, 10:00–11:30am
Kick off Convention 2005 at this highly anticipated General Assembly. The morning promises a line-up of motivational messages from Academy leadership and a not-to-be-missed keynote speaker. With this year’s event located squarely in the seat of political power, there’s sure to be some real “movers and shakers” in the audience… and on the stage! Join us as we honor our Awards recipients, recognize our professional victories past and present, and gather to take our message to Capitol Hill.

4th Annual Blood Drive
Thursday, March 31, 12:00–5:00pm
A big “Thank You” to all those who donated blood at last year’s convention. It truly was the gift of life for many! If you are interested in spending a little less than an hour to be a lifesaver by donating a pint of blood, contact Therese Walden, AuD, at Therese.walden@na.amedd.army.mil. An estimate of the number of potential donors is needed in order for the Red Cross to staff the donor center efficiently.

International Reception
Thursday, March 31, 7:30–9:00pm
Held at the Renaissance Hotel
The international reception is open to all members to assist the International Committee and the Board of Directors in welcoming our colleagues from outside the United States. The reception is a chance to get acquainted with audiologists from all over the world and familiarize our guests with the highlights of the convention. The Academy appreciates that our colleagues from overseas incurred substantial
costs to be part of our convention, and we hope to make them feel comfortable during their stay with us in Washington, DC. Please join us.

Academy Business Meeting
Friday, April 1, 2005 7:00–7:50am
Rise early and enjoy a light breakfast when the Academy Board of Directors report on the Academy’s goals and accomplishments for the past year. This provides an excellent opportunity to meet with Academy leaders and learn more about the future of the Academy.

Poster Presentation & Reception
Friday, April 1, 2005 4:00–5:30pm
Posters sponsored by Etymotic Research, Inc. While this is an important and educational research presentation, there is an element of fun to it! Join your fellow attendees as we once again hold our smash hit, the Poster Presentation Reception!

Consumer Workshop
Saturday, April 2, 2005 9:00–11:30am
Held at the Renaissance Hotel. Join prominent local audiologists at our informative consumer workshop on hearing and balance. A series of six mini-presentations on hearing aids, tinnitus, dizziness, noise and related topics will provide the framework for a morning of free educational information for consumers and the media. The session concludes with a panel discussion that will be open to questions from consumers.

Trivia Bowl & Reception
Saturday, April 2, 2005 4:30–6:30pm
Title Sponsor: Siemens Hearing Instruments Co-Sponsors: Knowles Electronics and Rayovac Corp.
Join the fun! This favorite Academy tradition pits students, researchers and practitioners against each other in an exciting battle of wits and memory. This is the one place where your command of obscure audiological tidbits can put you ahead of the pack. You are invited to join your colleagues for a high-spirited evening of food, drink and fun. For more information on how to put a team together, contact Lisa Yonkers at 703-226-1038 or by email lyonkers@audiology.org or just join a table with empty seats!

Open Houses
Saturday, April 2, 2005 6:30–8:30pm
Have a great ending to your convention by attending (or throwing!) a party sponsored by your alma mater or organization and enjoy the company of your current and former colleagues. Rooms are offered free of charge. Use this opportunity to showcase your organization’s contributions to the audiology community. For further information on hosting an open house, please contact Lisa Yonkers at 703-226-1038 or by email lyonkers@audiology.org

See What’s New at the Academy Store!

Make your Convention 2005 experience complete with a trip to the Academy Store. You’ll find favorites like Academy baseball caps, the stainless steel thermos and the must-have How’s Your Hearing? license plate frames, plus some great new additions to show your pride in your profession…and your Academy!

**CONVENTION Wish List**

- **Audiology Magnetic Poetry Set** — the perfect gift for the literary Audiologist on your list!
- **Convention 2005 Coffee Mugs & Pub Glasses** — Think (and drink!) Academy from AM to PM
- **Polo Shirts, T-shirts & Coaching Jackets** — New for 2005 in our Apparel Department
- **AUD Bumper Stickers** — The hip way to show off your new degree/profession to the world!
- **Political Animals** — Stuffed elephants and donkeys for the kids… or the kid in you!

...and **WIND-UP WALKING EARS** are back by popular demand!
It's not too late to register for a Pre-Convention Workshop!

**Wednesday, March 30, 2005**

**Full Day Workshops:**
- PC101 Amplification in Infants & Young Children: Start to Finish
- PC701 Mentoring 101: Clinical Supervision in Audiology
- PC802 We’re Near the Capitol, so Let’s Increase YOUR Capital!
- PC1101 Management of Adult & Pediatric Balance Disorders

**Morning Half-Day Workshops:**
- PC301 Cochlear Implants: The Present & a Peek into the Future
- PC801 Screening & Diagnosis: An Evidence-Based Approach

**Afternoon Half-Day Workshops:**
- March 30, 2005 1:30–5:30
  - PC601 Auditory Aging

**REG-EXPRESS! Pre-registered attendees only!**

If you register by **March 11** with full payment, you will receive your meeting credentials in the mail. Then save yourself time by redeeming your Convention Bag ticket at the Reg-Express locations to pick up your badge holder, convention bag and materials.

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**Notes:**
- Full Day Workshop/Half Day Workshop
- (Please, do not call the hotels directly as the Convention rate will not be available)

**MARK YOUR CALENDARS AND PLAN TO COME EARLY!**

American Academy of Audiology, Inc. Political Action Committee (PAC) Reception will be held on **Wednesday, March 30 at 4:00-5:00 PM**.

Support the legislative and advocacy initiatives of the Academy and help to make audiology an autonomous profession.

Additional details will be forthcoming.

Look forward to seeing you there!
We are really excited about the Featured Sessions this year, for a variety of reasons. First of all, consistent with the “Vote Audiology” theme of the convention, we will make use of an interactive “polling” system for several of the sessions. This feature provides the audience with the opportunity to provide “live” input during the session, and their responses are automatically tabulated and displayed for use during the session. As a result, it is possible for presenters to receive immediate feedback regarding audience opinions, practice patterns, knowledge base, or recommendations. To that end, we have identified several Featured Sessions that are particularly well-suited for this environment, including sessions on ethics (FS805: How’s your EQ?), politics (FS801: Audiology Priorities in the 109th Congress; FS803: What’s Happening in the Agencies: The Alphabet Soup of the Federal Government), health care policy (FS802: Medicare 101: The ‘How To’s’ of the Centers for Medicare and Medicaid), and clinical outcomes (FS104: “Real-World” Hearing Aid Fitting: Managing Patient Expectations). We know that this learning format provides new opportunities for interaction that are part of the Academy’s call for “innovative” proposals. We wanted to take advantage of the location in DC to include several important sessions pertaining to Audiology’s political and professional future. Furthermore, the use of the interactive format allows those “inside the Beltway” to know what audiologists think about several important professional and political issues. Please plan to attend these sessions and make your voice—and vote—count!

By popular demand, we have included some outstanding “Grand Rounds” sessions again this year. Specifically, the audiologists from Mayo Clinic (FS403) and Boys’ Town National Research Hospital (FS405) will offer their perspectives on pediatric and adult diagnostic audiology, respectively, via case history presentations. In addition, Gary Jacobson and a panel of experts will help audiologists find better balance in their lives through vestibular evaluation and treatment (FS1101). Finally, Robert Turner, Catherine Palmer, and Gus Mueller continue their tradition of reviewing the published hearing aid literature from 2004 (FS102).

The inaugural Marion Downs Lecture in Pediatric Audiology, supported by the AAAFoundation with an educational grant from the Oticon Foundation, will be presented by Anu Sharma (FS404). The title of Dr. Sharma’s presentation is “A New Clinical Technique for Assessing Central Auditory Development in Infants and Children with Hearing Aids and Cochlear Implants.” The Educational Audiology Association is providing financial support for the session presented by Chris Turner (FS 301), called “Preservation of Acoustic Hearing in Cochlear Implantation,” which summarizes work completed at the University of Iowa on this important emerging issue.

The Academy’s Research Committee played a prominent role in the selection of this year’s Featured Sessions. Attendees will hear from a variety of renowned researchers on topics including Genetics and Hearing Loss (FS601, FS602), Hearing and Cognitive Changes in the Aging Adult (FS202), Otitis Media (FS 401), Brain Remapping and APD (FS201), Ototoxicity through Lead and Mercury Exposure (FS603), Otoprotective Agents (FS501) and Tinnitus (FS1001). There will be no shortage of new data presented in these sessions, and we are excited about the breadth of topics featured in these sessions. Several renowned international researchers and clinicians will share their knowledge during Convention 2005. Brian Moore, arguably the “father of auditory dead regions,” will update convention attendees on the TEN test and other diagnostic procedures. Justin Zakis, Wouter Dreschler, Gitte Keidser, Harvey Dillon, and Elisabeth Convery will present findings from their work with a “trainable” digital hearing instrument at NAL in Australia (FS 101). Also, Adrian Davis and Stuart Gatehouse will discuss the parallels and differences between the US and the UK hearing aid markets, in their session called “A Revolution in England: Audiology Discovers a New Capacity” (FS804).

Robert Glaser, Barry Freeman and Ian Windmill will present a session called “Practice Management: Personal and Practice Valuation” (FS 701) that will be of vital interest to those who have a present or future interest in private practice. Finally, you won’t want to miss “When Audiology Was Fun,” a session presented by an all-star ensemble of audiologists who will provide the audience with an entertaining and educational view of audiology’s past, with a glimpse or two into our collective future.

All in all, we think that this year’s Featured Session roster is outstanding, and should offer something for everyone. In an effort to bring the very latest in “hot topics,” we have reserved two featured sessions slots for “late-breaking” content that we will announce at a future date prior to convention. Stay tuned! Finally, I wish to acknowledge the efforts of the committee, which includes Carmen Brewer, Barry Freeman, Robert Glaser, Frank Musiek, and Robert Sweetow, assisted very capably by Lisa Yonkers in the National Office.
### Thursday, March 31, 2005 8:00–9:30 AM
- **FS101** The "Trainable" Hearing Aid: Concept, Design, and Candidacy
- **FS201** Impact of Training on Brain Remapping, Hearing Loss, and APD
- **FS301** Combined Electric & Acoustic Hearing for High-Frequency Hearing Loss
- **FS601** Genetics & Hearing Loss: Part I
- **FS801** Audiology Priorities in the 109th Congress
- **FS1101** Grand Rounds in Balance Function Testing

### Friday, April 1, 2005 8:00–9:30 AM
- **FS102** Hearing Aids: 2004 in Review
- **FS202** Hearing & Cognitive Change in the Aging Adult: Toward an Understanding of Rehabilitation
- **FS401** What’s the Evidence? Otitis Media Effects and Treatment in Children
- **FS402** When Audiology was Fun
- **FS602** Genetics & Hearing Loss: Part II
- **FS802** Medicare 101: The “How To’s” of the Centers for Medicare & Medicaid Services (CMS)

### Friday, April 1, 2005 10:00–11:30 AM
- **FS103** Dead Regions in the Cochlea: Diagnosis & Clinical Applications
- **FS403** Adult Grand Rounds in Audiology: The Mayo Clinic Experience
- **FS404** Marion Downs Lecture in Pediatric Audiology – A New Clinical Technique for Assessing Central Auditory Development in Infants and Children with Hearing Aids and Cochlear Implants
- **FS603** Effects of Lead and Mercury Exposure on the Auditory System
- **FS803** What’s Happening in the Agencies: the Alphabet Soup of the Federal Government

### Saturday, April 2, 2005 8:00–9:30 AM
- **FS405** Pediatric Grand Rounds: The Boys Town Experience
- **FS701** Practice Management: Personal & Practice Valuation
- **FS804** A Revolution in England: Audiology Discovers a New Capacity
- **FS805** How’s Your EQ (Ethical Quotient): An Interactive Session

### Saturday, April 2, 2005 10:00–11:30 AM
- **FS104** “Real-World” Hearing Aid Fitting: Managing Patient Expectations
- **FS203** Auditory Temporal Gap Detection (or Why Silence is Golden)
- **FS501** Developing Otoprotective Agents
- **FS806** Issues in Audiology Education: Consensus or Confusion?!
- **FS1001** New Approaches for Treating Tinnitus

### Demo the Latest Hearing Technology...
Stop by the Demo Theater in booth 171 on the exhibit hall floor to learn about new products, services and the latest technology! Exhibitors will be demonstrating and presenting their new products and services throughout Expo 2005 show hours. A complete listing of information will be included in the Final Program but here’s an idea of what you can expect:

#### DEMO THEATER SCHEDULE (as of 12/1/04)

**THURSDAY**
- 12 Noon – 1 pm Starkey
- 1 pm – 3 pm Cochlear Americas
  - Showcasing facets of the latest, innovative technology captured within the Nucleus Cochlear Implant product portfolio; offering worldwide choices and flexibility.
- 3 pm – 4 pm GN ReSound
- 4 pm – 5 pm GN Otometrics
- 5 pm – 6 pm Hearing Components

**FRIDAY**
- 10 am – 11 am Advanced Bionics Corp.
  - When to refer your patient for a CI: Today’s CI Candidacy and Outcomes
  - Did you know that the majority of cochlear implant users are able to use the telephone? During this hour we will review today’s cochlear implant candidate and performance outcomes.
  - 11 am – 12 Noon Advanced Bionics Corp.
    - Connecting the Bionic Ear to the Real World
    - During this hour we will review how to interface the Bionic Ear System with a variety of assistive listening devices, including FM systems and accessories.
  - 12 Noon – 1 pm Vivosonic
    - In-situ amplification and wireless recording of Auditory Evoked Potentials and Otoacoustic Emissions
  - 1 pm – 2 pm Otodynamics, Ltd.
    - Current and Future Trends in Otoacoustic Emissions Testing, Their Use and Interpretation in a Modern Auditory Test Battery
    - The course will provide a basic understanding of the current techniques, and future trends for using OAEs in the clinic.
- 2 pm – 3 pm GN ReSound
- 3 pm – 4 pm GN Otometrics
- 4 pm – 5 pm Vivosonic
  - In-situ amplification and wireless recording of Auditory Evoked Potentials and Otoacoustic Emissions

**SATURDAY**
- 10 am – 12 Noon Magnatone
  - Instrument Comparison Demonstration
DIAMOND LEVEL

Widex Hearing Aid Co. Inc.
Badge Holder
Banners
Expo Card
Shuttle Service

Make the New Product Showcase Your First Stop at Expo 2005

Visit the New Product Showcase and be the first to see the new products the Academy’s exhibitors are unveiling at Expo 2005! Products will be shown in a large display area outside the exhibit hall entrance. Stop by the showcase to learn which companies are introducing new technologies that could directly affect your role in the industry!

PARTICIPANTS AS OF 12.1.04
Hearing Components • Magnatone
• Oticon, Inc.
Phonic Ear • SeboTek Hearing Systems • Starkey
SONIC innovations • Unitron Hearing
Vivosonic, Inc. • Westone

EMERALD LEVEL

Phonak
Final Program Covers
Ice Cream Carts
Preliminary Program Wrap
Water Cooler Wrap

Starkey Laboratories
Advertising in the Preliminary Program
Program
Advertising Kiosk
Banner

Box Lunches
Column Wrap
Cyber Café
Guest Passes
Static Cling

PLATINUM LEVEL

Oticon, Inc.
Banner
Convention Bag
Lanyard

Siemens Hearing Instruments
Advertising in the Preliminary Program
Banner
Trivia Bowl – Title Sponsor

Interton
Convention Penns
Ice Cream Carts
Static Cling

Knowles Electronics
Advertising in the Preliminary Program
Literature Insert
Trivia Bowl – Co-sponsor

SILVER LEVEL

Etymotic Research, Inc.
Poster Session

Healthcare Providers Service Organization
State Leaders’ Luncheon

Rayovac
Trivia Bowl – Co-sponsor

SONIC innovations
Note Pad

BRONZE LEVEL

Allyn & Bacon
Advertising in the Preliminary Program

HEAR USA
Advertising in the Preliminary Program

GN ReSound
Advertising in the Preliminary Program

Pediatrict Medical Group
Static Cling

Marcon Hearing Instruments, Inc.
Static Cling

Qualitone
Static Cling
Scientists today are using congenitally deaf white cats to study the maturation of central auditory structures that have never received specific sensory input. In congenitally deaf white cats, the organ of Corti degenerates before the onset of hearing function. Thus, the auditory cortex of these cats is naive with respect to auditory experience. Because the auditory nerve fibers survive nearly completely in young congenitally deaf cats, the auditory pathways of these animals can be continuously activated by electrical stimulation through a cochlear implant. Deaf cats therefore represent a unique model for cochlear implant studies of congenital deafness, as central input is not significantly affected by degeneration of the auditory nerve. This line of research is clinically relevant because it examines the neurophysiological basis of prelingually deaf children needing to receive a cochlear implant before the age of 4 or 5 years in order to achieve optimal speech understanding.

The cats are unilaterally implanted at a young age with intracochlear electrodes similar to a human cochlear implant. After a recovery period, the implanted portion of the cochlear implant in these cats is connected to a sound processor worn in a jacket or backpack. The implant is active 24 hours a day and stimulates the auditory nerve similarly to the cochlear implant used in humans.

Recently, in a study conducted by Kral et al. (2004) cortical auditory evoked responses to cochlear implant stimulation in young, congenitally deaf cats were compared with age-matched hearing, cochlear-implant-stimulated cats (controls). The cats ranged in age from 1 month to greater than 6 months (adult). Local field potentials (evoked potentials) were recorded with microelectrodes located at various positions in the auditory cortex. In the most active region of the auditory cortex, the cortex was penetrated and gross synaptic currents in all cortical layers were determined.

Differences in activity were obtained between the two groups of cats, demonstrating the influence of hearing experience on the maturation of the auditory system. Immaturely shaped cortical evoked potentials were recorded both in deaf cats and controls by approximately 1 month of age. The morphology of field potentials matured during the first 6 months of age in the controls, whereas this maturation was significantly altered in deaf cats. Also at 1 to 2 months of age, a smaller cortical activated area and synaptic currents were found in congenitally deaf cats compared to age-matched hearing controls. In 3-month old deaf cats, the activated area expanded beyond the values obtained in controls, and the corresponding synaptic activity also became significantly larger. At 4 months of age the cortical activated areas in deaf cats shrank to the same size as in hearing controls. Synaptic activity at this age was similar to that of adult deaf cats, with significantly smaller synaptic currents overall and a reduction of activity in the deep cortical layers compared to controls. There were no further cortical developmental changes in deaf cats implanted after 4 months of age, whereas changes continued in hearing cats until 6 months of age (adolescence).

These results demonstrate the neurophysiological correlates of developmental alterations in the auditory system with congenital deafness. They also explain some of the electrophysiological findings in human studies exploring developmental changes in the central auditory system. Furthermore, they provide evidence that supports the need for early cochlear implantation due to limited cortical development when cats are implanted at older ages.

REFERENCE

“Technology” has invaded the world of hearing aids. The advent of new features and new systems have made us all expect technology to remove all the difficulties in fitting hearing aids; it is just a matter of time before the right technology (miniaturization, more powerful processing, new signal processing algorithm) reaches the hearing aid market and removes another difficulty with hearing aids. To that effect, let us look to an alternate universe where these technologies already exist. We can take a sneak peek at what may become possible in our future. (Fade out into dream sequence, as seen so often on hokey television situation comedies…)

Sonic Innovations is proud to announce the upcoming release of our newest product. Hearing aid technology has improved so fast, that our next release is not just incremental, but jumps way ahead of where things are today. Introducing Natura 6, the next development from Sonic Innovations following Natura 3. There is so much that is new and different that a single digit increase does not accurately reflect what is new.

Natura 6 is organized around six key features. These features are in response to what is needed to change the perception of hearing aids to the end user and the public. These features include:

- **Chameleocrylic™ shell materials**
- **Two6™ channel filtering**
- **BFETM Fitting system**
- **SSTC™ compression**
- **DNE™ technology**
- **using NoiseFinder™ 4-D processing**
- **JS™ Wireless communication**
- **MTVTM for occlusion**

**Chameleocrylic™ Shell Materials**

Through a joint research effort with NASA, we apply the latest ‘Stealth’ technology to shell design. The material is computer controlled to reflect forward the color and texture of surrounding materials (when powered), causing the material to blend into its surroundings (see photos). The limitation of Chameleocrylic materials is that users must always turn off devices before setting them down, or they will be nearly invisible and often will not be found until the battery runs down (approximately 1 month, see below).

**Two6™ Channel Filtering**

When Natura was first released with 9-channels, competitive devices used 2 and 3 channel designs. Since then, the number of compression channels has increased significantly. Natura 6 employs a new filtering method that allows 26 channels (64) with kneepoints for every 6 dB of input (16 kneepoints). This design may seem very complicated, so in order to eliminate the need to program all 1024 kneepoints manually, a new fitting system has been developed.

**BFETM Programming System**

Best Fit Ever™ uses a combination of ABR and OAE and a special head gear to automatically evaluate all 1024 kneepoints in each ear (see photo). The process takes 25-30 seconds per ear in its current implementation. An optimized version will be available six months after launch, and will cut programming time in half.
since clinical time is valuable and we wouldn’t want to waste it on fine tuning of devices.

**SUPER-SONIC TIME CONSTANTS™ (SSTC)**

Natura has shown that fast is good, so faster must be better. Natura 6 uses time constants faster than the speed of sound. Our proprietary algorithm actually adjusts the compression BEFORE the arrival of sound. It is not just intelligent, but... **CLAIRVOYANT™**.

**DIGITAL NOISE ELIMINATION™ (DNE)**

Having argued in vain for years that noise reduction can provide benefit, we will change our approach and go with our NoiseFinder™ Four Dimensional Processing. By monitoring the space time continuum with our Clairvoyant™ system, we can decide what will be heard as noise by the user (regardless of modulation rate, location, volume, etc.). The system then physically eliminates the source of noise, never to be heard of again by anyone.

**MTV™ UNCORKED™ HEARING**

Occlusion is a major concern of clinicians and a common problem with hearing aid users. All Natura 6 devices will be Maximum-True-Vent™ (MTV) devices. By venting all vibro-skeletal energy, patient will experience Uncorked™ hearing. This is accomplished using the nationally recognized WhistleStop™ technology by RONCO.™ If patients order within the first 30 days of launch, they will get a second WhistleStop™ for other home electronics, absolutely free (plus postage and handling).

**SIX WIRELESS CAPABILITIES**

There are six new capabilities tied to wireless technology. These include:

- Head-pointer™ directionality, which uses wireless communication between bilateral devices for true binaural beamforming
- VAD™, Voice activated Dialing for the internal cell phone in the device (GSM compatible for world wide use)
- GPS- Global Positioning Satellite link, with optional access to an OnStar™ subscription service for instant support in case of emergency
- XM™ Satellite Radio
- Homelink™, to open your garage door and turn on the lights before you arrive home
- IEEE 802.1f wireless network, our new low power standard for wireless networking and internet access

**JET SETTER™ FITTING ALGORITHM**

Recent and ongoing research in Australia, Canada, and Great Britain has shown that Canadians like DSL, Australians like NAL, and the British like CAMFIT. This implies that an individual’s physical location on the globe changes preferences, and should be taken into account in hearing aids. Our GPS capabilities allow fittings to adjust as you move around the globe. This provides optimal performance for Jet Setters, with devices that adjust for the ethereal changes in atmosphere associated with continental differences, altitude, barometric pressure, etc. So you will automatically change to DSL when in Canada, or to CAMFIT while in Great Britain, etc.

**CARE AND FEEDING**

Anything in the ear must be able to deal with the natural oils and cerumen in the ear. Natura 6 uses a Catalytic Receiver Filter™ (CRF), where a reaction with a catalyst eliminates all materials from contaminating the receiver, similar to the catalytic converter in an automobile. This means there will be no more fading or plugged devices with periodic replacement of the catalyst.

Daily care should also include cleaning of the device exterior. To make this as easy as possible, the Chameleocrylic materials can be washed in lukewarm water and wiped dry with a lint-free cloth. The system is water resistant to 1 meter.

Power is delivered using a proprietary Outlet Like™ (OL) Battery/CRF™ cartridge. The cartridge allows the user to change the battery and catalytic filter in one step, with a life expectancy of 30 days. The MRSP of the cartridge is $1/day, $1.75/day binaural.

**EXTRAS…**

- Denial Adapt™
- CEM™ coatings
- U-TURN™ directionality
- 2M™ directionality
- GOSMILE™ and Frown™ entry level devices

**DENIAL ADAPT™**

Since so much time is saved during the fitting process with our BFE™ system, all patients have time to be administered the Kubler-Ross psychological profile during their initial evaluation. In the case of new users, fittings are then adapted based upon the seven stages for mourning at the news that the patient has a hearing loss. This fitting adaptation strategy was developed at the NLA².

**CEM™ COATING**

In addition to the nearly invisible shells, Natura 6 also has available a Cosmetically Enhancing Material™ coating with time released BOTOX™. Never again will patients say that hearing aids make them look old, as continued use will decrease the signs of wrinkles around the eyes and at the side of the face. We have preliminary reports that friends and family are unaware of the patient’s hear-
ing aids and ask what is making them look so young.

**U-TURN™ DIRECTIONALITY**

Other systems have Adaptive Directionality, which searches a range of polar patterns to see which picks up the least energy. Natura 6 uses the *Universal Termination of Undesirable Ramblings and Noise*™ (U-TURN) which does not require two microphones for directional performance, and therefore avoids the disadvantages of a low-cut, microphone noise, or wind noise associated with conventional directional. The system produces double-digit AIDI measures, so it provides unsurpassed separation of front from everywhere else.

**2MTM DIRECTIONALITY**

The Natura 6 *CLAIRVOYANT™* processor not only analyzes the space-time continuum, but detects changes in brain-waves associated with manic or depressive moods (Two Mood™ or 2M). In these cases, Natura 6 whispers words of encouragement to direct your mental state to a more neutral mood. The system is currently working in 12 languages, with 6 more under development including Swahili, Peruvian, Bolivian, Nepalese, Pakistani, and Cambodian.

**GOSMILE™ & FROWN™ ENTRY LEVEL**

High end devices are not realistic for all patients, so we have two entry level lines, which are de-featured versions of Natura 6. One will be the GOSMILE™, which is similar to a prepaid cell-phone, only you pay for how far you travel which is determined by the internal GPS. The default setting only works for initial travel of one mile, but devices can be recharged for additional movement at a per-mile rate. People isolated on small desert islands will find this device an inexpensive alternative to traditional devices, since they cannot move around much.

The other entry level device, the Frown™, sounds so bad, it will turn your SMILE upside down!

*(fade back from the dream)*

I see the future of hearing aids, and things look good. They are extremely expensive, practically invisible, completely under the control of the clinician, and provide benefit to the hearing impaired. But wait, aren’t we nearly there only without the Botox? 

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1 In order to turn on this function, the end user must have a current concealed weapons permit.

2 National Lunatics Association
Editor’s Note: Employers, manufacturers, insurance companies, bankers, accountants and other business professionals suggest that many audiologists are naïve regarding the perils and/or promises of private business. Ultimately, every audiology practice becomes a business that must be managed effectively so that the practice can survive and, of course, support the lifestyle to which audiologists aspire. It makes no difference if you are an employee managing a profit center within a large practice or company, or an independent private practitioner working from month-to-month. It is necessary to understand the variables that cause the rise and fall of profits and losses.

Thus, we have invited Robert Traynor, who has been in private practice in Greeley, CO for over 30 years and is the senior international audiology consultant for a major hearing aid manufacturer. He teaches the Business and Professional Issues course for the University of Florida AuD Program and is completing the MBA/Global Management Program at the University of Phoenix. We are delighted that Bob has agreed to write a series of tutorial-type business management articles for publication in Audiology Today entitled “The Business of Audiology.”

To Incorporate or Not to Incorporate? No matter if the audiology practice is brand new, or if the practice has existed for years, a key major business decision involves the legal structure of the practice. The major types of organizational structures are obvious to all of us although the differences between them may not be so obvious. We deal with sole proprietors, corporations (INC, PC) and more recently the Limited Liability Corporation (LLC) or Limited Liability Practice (LLP) for professionals. Understanding business requires knowledge about these various business structures and how might (or might not) apply to an audiology practice.

Sole Proprietorship. Charles Walgreen bought the drugstore in which he worked on the south side of Chicago in 1901. Today Walgreen’s is the largest drugstore chain in the United States. If, like Charles Walgreen, a person starts their own audiology practice, with no partners or shareholders, they are said to be a sole proprietor. In a sole proprietorship the owner bears all of the expense of equipment, office supplies, employees, marketing, billing, collections and other costs; but the sole proprietor is entitled to all of the after-tax profits as income. The major advantages of a sole proprietorship structure is the ease with which it can be established, the lack of regulations governing this type of practice, and that the revenue generated is only taxed one time as personal income. It makes this business format ideally suited for informal small businesses, and as such forms the structure of most audiology practices.

The serious downside of the sole proprietorship is that the owner is personally responsible for all of the business’s debts, malpractice exposure and other liabilities of the practice. If the practice owes the bank money to cover financial advances and it does not pay, the owner of the practice is personally liable for the total amount of the loan. If the debts are sufficiently large, the bank can force the owner into a personal bankruptcy since sole proprietors are the responsible party for all debts and liabilities of the business. Thus, as a sole proprietor, the owner has unlimited liability for not only their own actions, but the also the actions of the employees.

Partnership. A partnership is formed when two or more owners choose not to establish the business on their own. Often money and expertise are pooled to facilitate a business or practice with a colleague, friend or relative. If the practice has others involved in the business structure, the sole proprietorship is inappropriate and a partnership is formed. An attorney draws a partnership agreement that sets out how the management decisions are to be made and the portion of profits to which each partner is entitled. The disadvantage of a partnership is that although the partners may keep all of the after tax profit, there is still unlimited liability of the partners for debts and malpractice. The real difference from a sole proprietorship is that the liability is now spread across the partners, rather than just on the shoulders of one person. Since you are totally associated with your partners for both debt and malpractice, it is imperative that the partners know each other very well. The best practical advice on partnerships is to “know thy partner” as this format has been likened to a marriage where you are totally associated with your partner colleague, friend or relative.

Corporations. As the audiology practice grows and/or the personal liability exposure of the owners increases, it may...
Corporations are created by articles of incorporation, a legal document drawn and filed by an attorney within the state that will be the corporation’s domicile. These state-determined articles of incorporation, among other things, set out the purpose of the business, how many shares of stock can be issued, the number of individuals to be appointed to the board of directors and other specifics about the new corporation. In addition, part of the formal process in the creation of the corporation is that it must have a unique original name. A corporation, according to Brealey, Myers, and Marcus (2002), is considered a resident of its state, and can borrow or lend money, sue or be sued and the corporation pays its own taxes. At time of incorporation the owners (stockholders) incur numerous fees such as attorney fees, filing fees, purchase of minute books, corporate seals, etc. Although large corporations have boards that is responsible to a great number of stockholders, it is not uncommon for an incorporated audiology practice to be wholly owned by one person and a Board of Directors, who, in fact, might be the owner and his relatives who compose the stockholders. In these “closely-held corporations,” the owner controls all of the stock and therefore makes all of the management decisions. Sometimes it is necessary to sell some stock to others to raise money to invest or continue the business operation. Depending upon how much stock is sold, it may be necessary for the Board of Directors to specify controlling and minority interests according to the percentage of stock owned.

The major benefit in establishing a regular corporation, usually designated by Inc. after its name, is the shelter from personal liability for the owner (stockholder) in terms of financial obligations and malpractice lawsuits referred to in business circles as “limited liability.” Generally, in corporations, the owner (stockholder) of the corporation is not liable if the company defaults on a loan or does not pay its bills, unless the owner has guaranteed the corporation’s debts with his personal assets. In the hearing industry, most product manufacturers require the owner (stockholder) to be personally liable for accounts and when accounts are opened for the “company.” Lawsuits against the corporation are usually not a personal obligation unless the suit carries a personal suit as well. Without these personal guarantees, if the corporation goes bankrupt, the suit for the debt does not usually affect the owners (stockholders), except to the limit of the stock that they have purchased.

The major disadvantage of the corporation business format is double taxation. Since the corporation is a tax entity, it is taxed at a corporate rate (about 35% of total revenue minus deductions). So, not only does the corporation pay taxes on its profit, but the employees (including the 100% stockholder/manager of the corporation) pay taxes on their income received from the corporation at their personal tax rate. Thus, as a sacrifice for the liability shelter of the corporation, the 100% shareholder/owner of the corporation will pay taxes on the income generated by the corporation and taxes again the same income obtained by the owner/shareholder as an employee.

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**TABLE 1**

<table>
<thead>
<tr>
<th><strong>Sole Proprietorship</strong></th>
<th><strong>Partnership</strong></th>
<th><strong>Corporation</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
<td><strong>Disadvantages</strong></td>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td>Easily established</td>
<td>Owner must bear all costs of business set up and maintenance</td>
<td>Relatively easy to establish</td>
</tr>
<tr>
<td>No partners or shareholders</td>
<td>No others to share burden or add expertise</td>
<td>Pooled expertise</td>
</tr>
<tr>
<td>Only pay taxes once on income generated</td>
<td>Unlimited liability for debts</td>
<td>Pooled resources</td>
</tr>
<tr>
<td>All the after tax profits stay with the owner</td>
<td>Unlimited liability for malpractice</td>
<td>All the after tax profits stay with the partners</td>
</tr>
<tr>
<td>Lack of government regulations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Corley et al (2002)
Hybrid Forms of Business Organization. Many businesses do not fall neatly into any of the three general business format categories and require legal structural modification to meet their needs. Brealey et al, (2002) describes these corporate modifications as “hybrids” since formats are combinations of the sole proprietorship, the partnership, and a regular corporation. A special hybrid corporation that does not have double taxation is the “S corporation.”

Allowed since the late 1950s, the “sub S corp” has all of the legal sheltering characteristics of a regular corporation except that the profits are not taxed. Income from the Sub S corp is treated like a partnership and the owner (stockholder) pays taxes on his share of the profits on their individual tax returns at their individual tax bracket. S corporations are quite popular as it allows the limited liability, but the income from the corporation is only taxed once.

In many states, there are Professional Corporations (PC), a designation usually reserved for physicians, dentists, lawyers, accountants and other professionals. This PC designation is reserved for professionals as many states would like to separate professionals and their corporations from other types of corporations exposing them to more personal liability than those in other types of businesses. In a professional corporation, the business component has limited liability, but the professionals within the business can still be sued personally for malpractice, even if their malpractice occurs in their role as an employee of the corporation (Corley et al, 2002).

Since the late 1980s, another hybrid has been allowed, the limited liability company (LLC) for companies or the limited liability partnership (LLP) used by professionals. These LLC/LLP formats combine the tax advantages of a partnership and the limited liability advantage of a corporation.

Corley et al (2002) indicate general advantages and disadvantages of the various types of business formats in Table 1. Since there are pros and cons to each of the legal business formats for new or existing audiology practices, there are numerous ramifications to be considered rationally by the involved audiologist. This would be the time, and well worth the fees, to consult an attorney and a Certified Public Accountant (CPA) for advise on how to proceed in determining the structure of your audiology business.

REFERENCES
MARKETING SUPPORT & COST OF INSTRUMENT GUIDELINES

The Ethical Practices Board (EPB) was recently asked to render an opinion on the ethical implications in accepting marketing and practice management support from a buying group or hearing instrument manufacturer in return for promising to dispense a given volume of instruments. These services typically include provision of advertising materials, training of front-office personnel, preferred account status for referrals, orchestrating direct mail campaigns, and supplying personnel for consumer seminars. Workshops in office accounting, management and performance review may also be offered. Clearly, this level of support could benefit both the practitioner and the manufacturer or buying group.

The “Ethical Practice Guidelines on Financial Incentives from Hearing Aid Manufacturers” position paper adopted by the American Academy of Audiology Board of Directors in 2003 states “incentives or rewards based upon product purchases must not be accepted.” This position was additionally clarified in Audiology Today 16(3): p. 49-50 to include any incentives received from buying groups. The opinion rendered was that there must not be a link between receiving an incentive or reward and dispensing, or promising to dispense, a given number of hearing aids.

It is irrelevant whether the manufacturer or a buying group offers the marketing support. It does not matter if the reward is tangible, such as a trip, or intangible such as territory exclusivity. What is important is that the audiologist must not commit to any sales goal, either number of units or percent of sales, in exchange for these services. There must be no strings attached to any gift or service received from any buying group, supplier or manufacturer in order to avoid conflict of interest. Any incentive based on product purchases might be construed to influence the audiologist’s judgment and give the appearance of a conflict of interest. In cases where the audiologist must supply the actual acquisition invoice for third-party reimbursement, quid pro quo arrangements may also violate the anti-kickback statute.

Members of the American Academy of Audiology are bound by its Code Of Ethics. Nonmember manufacturers and groups are under no such obligation and may offer incentives that might put the audiologist’s professional objectivity into question. Practice patterns must avoid any link between professional dispensing behaviors and the gifts or services offered by suppliers.

Academy Action in California Vestibular Reimbursement Fraud

The American Academy of Audiology is cooperating with the National Heritage Insurance Company (NHIC), the Medicare carrier in CA to help resolve a fraud and abuse issue related to claims for vestibular testing. NHIC noted an exponential increase (700%) in vestibular claims submitted to Medicare. The reimbursement claims for vestibular testing increased from $1.3 million to $13 million dollars in less than one year. The problem was identified and related to mobile vestibular testing conducted by Independent Diagnostic Testing Facilities (IDTF) using unlicensed and untrained employees. The scheme involved mass testing of Medicare patients in retirement and assistive living centers. The test results were “read” by an off-site physician and an off-site audiologist. There was no medical necessity confirmed for the patients and the tests were grossly over-utilized and over-billed with the same patient sometimes being tested multiple times within short time periods.

The Medicare claims were fraught with billings for 7-8 units of 92547 - use of vertical electrodes. The AMA states this should only be billed for 1 unit. Optokinetic testing was being billed for 4 units when it should be billed for 1 or possibly 2 at the most. The code for active and passive rotation tests 92646 and 92548, computerized dynamic Posturography, was being billed by facilities where the equipment did not even exist. NHIC confiscated marketing and advertising materials used by the questionable programs promoters promising outrageous revenue returns to physicians for joining the balance evaluation business. The Academy has helped NHIC to monitor the websites of equipment manufacturers to identify those who might promote this unethical behavior as a business model.

In response to the continued problems and abuses, NHIC stopped payments to any facilities where more than one (1) unit of any test was billed pending proof of medical necessity. This action by NHI was applied to all practitioners, physicians, hospital, medical centers, and audiologists. This action suddenly questioned the use of caloric testing where typically 4 calorics are performed.

NHIC was provided with a comprehensive overview of the importance of access to vestibular testing for legitimate patients and the need to protect those ethical practitioners from being unfairly penalized. Audiologists are asked to respond quickly with proof of medical necessity if requested to do so in order to receive payment. Now that the fraudulent issues have been identified, it is expected that this problem will be resolved in the near future. Unfortunately, these “balance businesses” are cropping up in Florida, Colorado, Missouri, Texas and elsewhere. The Academy will continue to work with third-party payors to educate them that Audiologists are key health care professionals for vestibular and balance patients.
PAC CONTRIBUTIONS CAMPAIGN

The Voice Of Audiology Must Be Heard!

The road to autonomy runs through Washington! With the goal of raising $100,000 before Convention, we are proud to announce we are 50% of the way there....but more support is needed. A minimum $25 contribution is required to receive a commemorative Academy PAC poster. If paying by personal check, please make it payable to: AAA Inc. PAC and mail to the address below. If you wish to charge your contribution, please fax the form below to 703-790-8631.

- Contributions will be used to support political candidates and Congressional leaders who support or are in a position to advance audiology issues.
- Contributions to the AAA Inc. PAC must be personal and voluntary.
- Corporate contributions are prohibited.
- Contributions are not tax deductible.

The American Academy of Audiology PAC is a bipartisan political action committee operated by and in accordance with the guidelines established by the Federal Election Commission. This political action committee is for members of the Academy to join together and contribute voluntary funds collected from Academy members to support candidates for federal political office in accordance with federal election law. The information included in this communication related to the PAC is for Academy members ONLY and is being provided for informational purposes, and is not a solicitation by, or an invitation to contribute to the American Academy of Audiology PAC.

American Academy of Audiology Inc. Political Action Committee

Federal law requires committees to report the name, address, occupation, and name of employer for any individual whose contribution exceeds $200.

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The new Congress, the 109th, will be sworn into a two-year term on January 3, 2005. With each new Congress comes new people, hopes and dreams. Each Congress has a different dynamic and a new sense of possibility.

Clearly, the 109th Congress will have to grapple with some large issues including war, peace and the deficit, among other issues of national concern. The Academy’s number one legislative issue will continue to be Direct Access for Medicare beneficiaries. The direct access bills introduced last year will have to be reintroduced and will get a new bill number in the House and Senate, as is the case for all legislative bills not enacted during the previous Congress. However, we will be able to build on the progress made in the last Congress and we will continue forward from there.

Our leadership team in the House will, presumably, stay pretty much the same, with Congressman Jim Ryun (R-KS) as our champion. In the Senate, one of our primary sponsors, Senator Ben Nighthorse Campbell (R-CO) retired following the last Congress. Senators Johnson (D-SD), DeWine (R-OH), and Harkin (D-IA), however, are all returning to the Senate and we will build upon that strong sponsor base.

The American Academy of Audiology and ASHA will again develop and sign a joint letter of support for the Direct Access Bill. As your lobbyists, our first priority is to work with you to help and to build our list of co-sponsors. Eventually, as our number of co-sponsors continues to grow, it will be clear that there is a consensus in favor of the Direct Access Bill. It is our hope that Medicare will follow the lead of the Department of Veterans Affairs and the Office of Personnel Management and allow program beneficiaries the option of going directly to a licensed audiologist without referral from a physician. At that point, the Congress should move forward to pass the Direct Access legislation.

HEALTH PROFESSIONALS IN CONGRESS

- Senate Majority Leader Bill Frist (R-TN), heart/lung surgeon
- Sen.-Elect Tom Coburn (R-OK), family physician
- Rep. Marion Berry (D-AR), pharmacist
- Rep. John Boozman (R-AR), optometrist
- Rep. Vic Snyder (D-AR), family practitioner
- Rep. Lois Capps (D-CA), nurse
- Rep. Dave Weldon (R-FL), internist
- Rep. John Linder (R-GA), dentist
- Rep. Charles Norwood (R-GA), dentist
- Rep. Phil Gingrey (R-GA), ob/gyn
- Rep.-Elect Tom Price (R-GA), surgeon
- Rep. Mike Simpson (R-ID), dentist
- Rep.-Elect Charles Boustany, cardiovascular/thoracic surgeon
- Rep.-Elect Joe Schwarz (R-MI), otolaryngologist
- Rep. Carolyn McCarthy (D-NY), nurse
- Rep. Tim Murphy (R-PA), psychologist
- Rep. Michael Burgess (R-TX), obstetrician
- Rep. Ron Paul (R-TX), ob/gyn
- Rep. Jim McDermott (D-WA), psychiatrist
- Rep.-Elect Bobby Jindal (R-LA), served as a health care adviser in the Bush Administration
- Del. Donna Christensen (D-Virgin Islands), family practitioner.

The Academy has posted a proposed letter on its website (www.audiology.org) that you can send to your local representative in Congress and the two Senators from your state asking them to cosponsor the direct access legislation. Your active involvement in the legislative process is crucial to our success.

Finally, this year presents a unique opportunity with the Academy Annual Convention being convened in Washington, DC. Please join us as we work together to further the profession as we descend on Capitol Hill to advocate and promote Direct Access to Audiology Hearing Services. Here’s to a great year and a productive new 109th Congress!
The Centers for Medicare & Medicaid Services (CMS) is adding a new benefit for Medicare Part B beneficiaries, the initial preventive physical examination (IPPE) or more commonly known as the “Welcome to Medicare” exam. This benefit will be available to individuals who enroll in Medicare for Part B Coverage on or after January 1, 2005. This benefit is available only during their first six months following enrollment.

The “Welcome to Medicare” exam must include screening tests for hearing loss and balance disorders to review the beneficiary’s functional ability and level of safety. The seven components of the preventive exam include:

- A review of the beneficiary’s medical and social history;
- A review of the beneficiary’s potential for depression;
- A review of the beneficiary’s functional ability and level of safety, including screening for hearing impairment and falls risk;
- An examination including measurement of height, weight, blood pressure, visual acuity, and other factors;
- An electrocardiogram;
- Education, counseling, and referral, as deemed appropriate, based on the results of preceding services; and
- Education, counseling, and referral, including a brief written plan, regarding appropriate screening and preventive services separately covered by Medicare (e.g., bone density test).

Of course, certain rules must be applied in the “Welcome to Medicare” Examination:

The examination may be provided only by a physician or “qualified non-physician practitioner” (i.e., a physician assistant, nurse practitioner, or clinical nurse specialist). The “Welcome to Medicare” examination may not be furnished by an audiologist.

CMS has instructed that hearing and balance screening tests are to be in the form of questions or questionnaires, not audiometric testing. The questionnaires used must be recognized by a national medical professional organization. If the questions or questionnaire identify a hearing impairment or indicate a risk of falling for the patient. CMS acknowledges that additional services including counseling and referral may be warranted. The “Welcome to Medicare” examination, which must include all seven items, (coded as G0344, and G0366 for the EKG) will result in a reimbursement of $124.30 to the examination physician.

Physician specialty societies have currently voiced several concerns; one, about the low reimbursement rate for an examination that includes several service elements, and two, the difficulty in scheduling patients for the preventive exam in the first 6 months of enrollment as well as verifying eligibility for the preventive exam.

**Opportunity for Audiologists**

CMS invites the health care community to educate physicians, qualified non-physician practitioners, and Medicare beneficiaries about the new IPPE benefit. This is a unique opportunity and a key time for audiologists to educate the medical and/or physician community about the services we provide. Audiologists should be the primary referral source in the follow-up appointments to further evaluate the patients who fail hearing and balance screenings. This is a great “lunch and learn” or “office-drop-by” opportunity to visit your referral offices or develop new referral sources.

If you have questions or need more information about the new “Welcome to Medicare” program and benefits, call the Academy’s office of Health Care Policy at 800-AAA-2336, ext. 1032.

**Be part of the “Welcome to Medicare” Program process:**

- Create a list of primary care physicians in your area
- Prepare a packet of information to present to each physician in your community including:
  - The “Welcome to Medicare” fact sheet
  - A copy of suggested screening questionnaires
    - For Hearing Screening: HHIE-S
    - For Falls Risk and Balance: DHI-S
  - Academy brochures explaining audiology and balance services
  - Additional information about your practice and the services that you provide
- Organize your schedule to visit each physician’s office in your area
- Explain the new Welcome of Medicare exam to the physicians and how to interpret the screening results of the hearing and balance questionnaires
American Academy of Audiology

is now offering to ALL members

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BRAND NEW HEALTH PROGRAMS!

The American Academy of Audiology announces its new Health Programs for members to help combat the rising cost of healthcare nationwide. The programs include health insurance, life insurance, long-term care insurance, cancer coverage, accident insurance, disability income, dental insurance, financial, retirement, and estate planning!

This is a new “members-only” benefit. Through these programs, members are able to take advantage of better insurance coverage at the lowest possible rates with its new comprehensive health insurance programs for individuals and groups. Long-term care and life insurance is being offered with 15-30% below market rates for association members only! Health Benefits Professionals & Association Health Programs (HBP-AHP) of Overland Park, Kansas, a nationally well-known company, has been retained to administer the program. Stuart Pase, President, welcomes all audiologists to take advantage of these special benefits and protection. Academy members will join the clients of HBP-AHP, which include over 85 associations with up to a million members who are being helped by HBP-AHP.

Members who currently purchase their own insurance and members who offer health insurance coverage for their employees should take a moment to compare their existing plan to a plan that utilizes Academy buying power. All national ‘A’ rated insurance companies are available to you. Members can receive enhanced benefits for themselves, their families, and their employees—both full and part-time.

In addition to health insurance, AAA members should inquire about the new long-term care insurance program. HBP-AHP will save members up to 15% on long-term care insurance and all policies include home health care, assisted living, and nursing home care. As average life expectancy lengthens, people do not want to lose their assets, their freedom of living environments, or become a burden to their family and friends. HBP-AHP offers members access to every long-term care insurance company nationwide.

Members should also take advantage of the life insurance programs offered by HBP-AHP. Members can save up to 30% on premiums for universal life insurance, term life insurance, and whole life insurance. All “A” rated life carriers are included and you will get the best rates.

For a free evaluation of your current benefits, please call our Association office at 888-450-3040 or 913-341-2868 or visit us at www.associationpros.com/assoc/AUDIO.

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Are you looking for a change? AHAA’s Audiology Depot Website and its Human Resource services can help! Job seekers and employers, visit www.audiologydepot.com to obtain information about audiology and dispensing jobs! Or call Ellen Hagen at American Hearing Aid Associates, West Chester, PA 800-984-3272 x351.

For information about our employment website, HearCareers, visit www.audiology.org/hearcareers. For information or to place a classified ad in Audiology Today, please contact Patsy Meredith at 720-848-2828 or Fax 720-848-2811.
Illinois Academy of Audiology Annual Meeting

The 12th Annual Illinois Academy of Audiology Convention will be held January 27-29 at the Hotel InterContinental in Chicago with the theme, “Uniting Audiology: One Strong Voice.” The program will feature an all-star faculty composed of Robert Sweetow, James Hall, Neil Shepard, Alan Freint, Paul Pessis, Kathleen Campbell, Deborah Pitcher, Thomas Thunder, Joseph Smaldino, Cheryl DeConde Johnson, David Citron, Dawna Lewis, Bryan Llang and Ted Venema. A unique feature of the annual meeting is the Great Debate of this year’s issue “Routine Audiometric Testing Should be Performed by Automated Equipment Whenever Possible.” The affirmative position will be taken by Christopher Wasden, President & CEO, Tympany, Inc. and Robert Margolis from the University of Minnesota, and the negative view will be presented by Dave Fabry of Phonak and Gus Mueller from Vanderbilt University. Mead Killion will moderate the debate. For additional information about the conference visit www.ilaudiology.org.

“Teaching Audiology” Conference

The University of Pittsburgh will host a “Teaching Audiology” conference on June 17-18, 2005. The focus for this conference is “The Art and Science of Teaching Amplification,” and will be conducted by nationally recognized educators in the field of amplification: Ruth Bentler, Robyn Cox, David Hawkins, Catherine Palmer, and Michael Valente. The conference will be moderated by Gus Mueller, and highlighted by a keynote speech by Patricia McCarthy, the 2004 recipient of Clinical Educator Award from the American Academy of Audiology. The conference is intended for those involved in teaching courses in amplification, or those involved in student supervision the fitting and management of amplification. A pdf file of the registration form is available at this website (look for “Upcoming Programs”): www.shrs.pitt.edu/csd/degrees/cont_edu.html.

Jodi Chappell, the Academy’s Director of Health Care Policy, was honored by The Bowling Green State University (BGSU) Alumni Association with the Recent Graduate Award. Chappell graduated in 1995 with a bachelor’s degree in political science. Among her civic activities, Chappell is a member of the Board of directors of Women in Government Relations, travels to Haiti for mission work and helps organize Washington-area charity events.

On May 7, 2004, Governor Granholm of Michigan signed a bill mandating licensure for audiologists. Michigan was one of only two remaining states that did not use licensure as the defining credential for audiologists. Governor Granholm appointed Michigan audiologists Gyl Kasewurm, Karen Jacobs, Dennis Burrows, Linda Seestedt-Stanford and Lari Korpela to serve on the first licensure board and to represent the more than 500 audiologists working in Michigan. The new Michigan Licensure Board is composed of five audiologists, two otolaryngologists and two members-at-large. The licensure bill governs only audiologists and includes provisions for dispensing hearing aids.

Kathy Vander Werff has joined Syracuse University’s College of Arts and Sciences as assistant professor of communication sciences and disorders. Vander Werff was a postdoctoral research associate at the University, working with different methods to diagnose infant hearing loss. She has previous experience as a clinical audiologist in California, Iowa and Missouri.
British Academy of Audiology Hosts Inaugural Conference

The British Academy of Audiology (BAA) Inaugural Conference was convened on November 18, 2004 in Manchester, England and attended by more than 600 participants. This historic meeting, themed “Audiology United,” was developed to celebrate the coming together, under a new organization’s charter, all of the hearing care professionals of the United Kingdom. The BAA was formed from the merged British Association of Audiological Scientists (BAAS), the British Association of Audiologists (BAAT) and the British Society of Hearing Therapists (BSHT) to become the largest UK Audiology organization representing the views of Audiologists. The American Academy of Audiology was represented by President Richard Gans, and past-presidents Brad Stach and Angela Loavenbruck. Additional information about the BAA can be obtained by visiting the BAA website at www.baaudiology.org.

Richard Gans, AAA President, conveys the congratulations from the American Academy of Audiology at the opening session of the BAA Inaugural Conference.

AAA President, Richard Gans, shown with Brad Stach, AAA past-president, Kajsa-Mia Holders, President of the European Society of Audiology, Angela Loavenbruck, past-president of AAA, and BAA President, Jonathan Parsons.

NAFDA Launches e-Journal

The National Association of Future Doctors of Audiology (NAFDA) has initiated an electronic student research journal, NAFDA-J. The NAFDA-J is designed to showcase student research projects, often completed as part of the AuD curriculum. The complete process to submit research for review is described on the NAFDA website at www.nafda.org under the Resource section titled “Research Database.” NAFDA Is currently accepting submissions for review. Research submissions may include extensive literature reviews or presentations of new data. Submitted articles must be accompanied by a letter of recommendation from a faculty member at the institution where the research was conducted or work performed. Research submissions will be reviewed by both peers and professionals.

Appalachian Spring Conference 2005

12th Annual Appalachian Spring Conference will be held June 16 – 17, 2005 at the VA Medical Center, Johnson City, TN. Frank Musiek will present “Insights to the Central Auditory System: Basic and Clinical Aspects.” The guest of honor will be Joseph Hall, III, who will discuss the “Effects of Otitis Media with Effusion on the Development of Auditory Perception in Children.” AAA CEUs will be available. For information, contact Deborah Weakley at 423-979-2940, fax 423-979-3403, or by e-mail, Deborah.Weakley@med.va.gov.
White Coat Ceremonies

The Arizona School of Health Sciences celebrated its Second Annual Audiology White Coat Ceremony as nine second-year Doctor of Audiology students in the Class of 2007 put on their white lab coats for the first time. Scottsdale Audiology Clinical Preceptor Georgine Ray, (standing at left), a private practitioner and owner of Affiliated Audiology Consultants in Scottsdale, delivered the keynote address during the event.

Bridget Novey (pictured alone) is the first AuD graduate from the University of Pittsburgh and may now be found working in the audiology department at the Duke University School of Medicine.

The Ohio Audiology Conference

“The Solve The Mysteries of Audiology - Come to the OAC & Get a Clue” is the theme for The Ohio Audiology Conference, February 24th - 26th, 2005 in Columbus, OH. Sixteen hours of AAA Continuing Education credits will be available. Four concurrent sessions will allow you to customize your schedule to include all your areas of interest. For more information visit www.ohio-academy-of-audiology.org

The University of Pittsburgh held a White Coat Ceremony for 16 new AuD students sponsored by their NAFDA Chapter. Brad Stach (immediate Academy Past President) was the keynote speaker for this celebration. The white coats were provided to the students by the Audiology Foundation of America.

The Pennsylvania Academy of Audiology (PAA) presented the 2004 Award of Excellence to Catherine Palmer, Associate Professor at the University of Pittsburgh. The Award cites Palmer's numerous contributions to the advancement of the profession of audiology, her dedication to scholarship and teaching, and her extraordinary clinical service. Palmer (center) is shown with Susan Parr (left) PAA President and Barbara Vento, (right) PAA Board Member.
Academy Responds to Automated Hearing Testing and Oto-Technician Training

There has been considerable concern and discussion within our membership regarding both the widely marketed automated hearing testing equipment as well as the 24-curriculum hour AAO-HNS Oto-technician training program. The Academy is aware of these two issues and has instituted a number of actions. The Academy Coding and Practice Management Committee is producing a white paper representing the audiology position on both topics. The white paper will provide a comprehensive background and review of the both issues with recommendations for actions to be taken by the Academy Board of Directors. The document will be provided to government and third party payers so that they may understand the problems created by these programs. The Academy immediately documented our concerns by way of letters to the Office of the Inspector General and to CMS-Medicare/Medicaid.

The use of automated testing equipment, which may be inevitable in some venues, does not meet the standard of care or description of diagnostic audiological services as described by the present AMA CPT codes. Thus, reimbursement for codes such as 92557 should not be paid at the same rate as when these tests are performed by a licensed audiologist. The proliferation of this equipment, along with numerous questionable business models currently underway aimed at increasing reimbursement revenues for primary care physicians, suggests that the equipment is also being used in billing schemes that could potentially increase the cost to the government, tax payers and insurers for hearing services. In South Carolina, a scheme was developed to provide primary care physicians with the automated testing equipment free of charge, allowing them to bill for audiological services along with a direct hearing aid referral conduit to a closed network of providers. This malfeasance was thwarted by the South Carolina Academy of Audiology’s legal counsel along with the Academy’s intervention.

It is the Academy’s position that the use of untrained and unlicensed individuals to perform audiological testing is contrary to patient welfare and again asks third party payers to pay for a level of competence they are simply not getting. This problem is further exacerbated by the lack of a requirement for direct personal supervision by a physician, when the testing is being done by other than a qualified audiologist.

A statement attributed to a well-known otologist involved with the automated test systems was recently published in one of the trade magazines to the effect that the “Academy’s leadership supports the use of this equipment.” Members can be sure that such as statement was not made by any Academy representative or elected Board Member. The American Academy of Audiology is dedicated to advocacy for patients with hearing and balance disorders and to support of our profession. Neither the automated testing systems or the 24-hour technician-training program furthers either of these causes. The Academy will be vigilant in educating CMS and all third party payers of these issues and providing them with our recommendations.
The American Academy of Audiology offers its members several benefits of membership. You may not even be aware of some of the advantages that come with being an Academy member. Not only are our members part of the world’s largest professional organization of, by and for audiologists, but they also benefit from discounts in a number of programs. Read on to find out more about the benefits of membership with the Academy.

Call Brittany Voigt, Member Benefits Coordinator, at 703-790-8466 x1044 or bvoigt@audiology.org for more information about these benefits.