



A newsletter of the International Hearing Foundation Fund of the Minnesota Medical Foundation at the University of Minnesota
Spring 2012

earTALK

200 Oak Street SE, #300, McNamara Alumni Center, University of Minnesota Gateway, Minneapolis MN 55455-2030

**May is
Better Hearing Month**

**2012 AAO MEETING
September 9-13, 2012
See you in Washington, D.C.**

Starkey Awards Research Grant to IHF

IHF was the recipient of a research grant from Tani and Bill Austin and the Starkey Foundation (photo, right, Dr. Michael Paparella and Bill Austin). This will help IHF continue much-needed research on ear-diseases affecting children and adults. IHF is very thankful for this grant.



Fellows—Stay in touch!
Please send your email address to:
trp-mmp@prodigy.net
or call 612.339.2120

IHF's Treva Paparella is University Rotary 2012 Citizen of the Year



Dr. Bob Margolis (right), who first suggested to IHF the 1994 Rotary project in Santiago, Chile, nominated Treva Paparella (left) for this 2012 honor. She played a major role in planning and funding the Santiago/Minneapolis Conference on Deafness in 2003, and opened her home for a reception. Altogether IHF's support for that School for the Deaf in Santiago (classroom amplification, adaptive playground equipment, a diagnostic center and more) and, under her direction, IHF contributions to Rotary's 2007 project (with Rotary of Skokie Valley IL) at the Jyoti School for Hearing Impaired Children in Kanpur, India, totaled \$55,922. Over the years, Treva has provided welcome and encouragement for many Rotary Inter-

national Scholars who come to study otological care under the tutelage of her husband, Dr. Michael Paparella. In the Twin Cities, IHF funded a project to provide to the Bread of Life Lutheran Church for the Deaf real-time captioning so that the congregation can "see what the preacher is saying on a huge screen behind him," enabling full participation in services. Treva also has championed partnerships to provide Minnesota children with expensive cochlear implant procedures to restore some hearing to the profoundly deaf.

The foundation of which she has been Executive Director for decades has a close relationship with the University of Minnesota's Temporal Bone

Research Laboratory, where microscopic anatomy of the ears is studied. Research is conducted by faculty at our medical school and by international IHF Fellows who come to learn this important method of research. Many have gone on to establish similar laboratories in their home countries.

The laboratory, research program, and International Fellows program would not exist without support from the IHF and Treva's leadership, commitment, and fundraising. Without her 15-year partnership with the Minneapolis University Rotary Club, Rotary could not have achieved many successes to help deaf and hearing-impaired people around the world.



MISSION STATEMENT

The International Hearing Foundation—nonprofit, tax-exempt, and funded solely through donations and fundraising events—has a three-fold mission: otological service, education, and research—all areas of great need. Beneficiaries of these charitable endeavors are first local but also international. The IHF, an affiliate of the Minnesota Medical Foundation, is the only hearing-related association in the world that has an international focus.

Board of Directors: David A. Lieberman, CIMA, President; Bradley Birnberg, Vice-

President; Michael M. Paparella, M.D., Secretary and Treasurer; Treva Paparella, Executive Director.

Board: Tani and William F. Austin, Sebahattin Cureoglu, M.D., Trac Duong, M.D., Oleg Froymovich, M.D., Frank Grovenstein, James D. Hainlen, Ph.D., Jantze Haley, Steve Juhn, M.D., Richard Kleber, CFM, Robert Margolis, Ph.D., Matthew Patterson, M.D., Elizabeth Payne, M.D., Michael D. Peters, M.D., Patricia Porter, Brandon Sawalich, Joseph P. White, CPA, Bevan Yueh, M.D., Sandy Zutz-Wiczek.

Fundraiser: Matt Blair. Advisory Board: David J. Lim, M.D., House Ear Institute; Joseph M. Miller, Ph.D., Kresge Hearing Institute, Hamed Sajjadi, M.D., San Jose Ear and Sinus Center.

Hear Ye, Hear Ye

It is an honor to serve as president of IHF. Historically, this article is written by the incoming president, but I have decided to co-author it with past president James Hainlen. The future of IHF is becoming clear, due in no small part to Jim's leadership. His tireless energy has been instrumental in creating a partnership: the board of IHF with the Minnesota Medical Foundation. So the Board approved Jim to serve as Special Project Chief Operating Officer for the Paparella Center for Hearing and Balance Research. On behalf of IHF, I'd like to thank Jim for his commitment, dedication, and continuous efforts. We hope you share our passion for IHF's future. Here's Jim's article on the design, development, and future of the Paparella Center for Hearing and Balance.



—David Lieberman, CIMA

Stories of advances in treatment for diseases of the ear all revolve around individuals: individual patients who suffer, researchers who make important discoveries, and doctors who care deeply about their patients. The IHF Board of Directors is proud to announce a new center to celebrate and continue the commitment and legacy of one extraordinary individual, Dr. Michael Paparella. In June of 2009, the idea of a Paparella Center at the University of Minnesota was discussed, and that December it was placed on our IHF agenda. Now the Paparella Center for Hearing and Balance Research is a reality. Our Board of Directors committed in January, 2012, to work with the Minnesota Medical Foundation to raise funds and develop a Center at the University of MN Department of Otolaryngology that will continue the leadership of Dr. Paparella, who brought worldwide recognition to the department during his years as its chairman.

The vision of the Paparella Center is to develop a recognized, elite center at the University of MN that will translate research into treatment for people with problems of the ears and with



Jim Hainlen hands the gavel and position of IHF President to David Lieberman (left).

balance. The Center seeks to recruit and retain world-class faculty who will invent the next generation of bionic hearing devices, design new ways to identify and treat genetic hearing loss in children, develop real-time imaging of the inner ear, use stem-cells to regrow damaged hair-cells in the inner ear, and research and develop better treatments for disorders of the inner ear that lead to problems with the patient's balance. The Board of Directors of IHF believes that the humanitarian mission of our Foundation, as articulated by Dr. Paparella when he founded IHF (service, education, and research), can be carried into the future by raising \$6 million for hiring world-class faculty, \$2 million for a Hearing Discovery Fund, and \$4 million for an Education and Training Fund. These funds will support multidisciplinary collaborative research among faculty in ear-nose-throat medicine, engineering, pediatrics, and stem-cell medicine.

The commitment of the Board of Directors of IHF is complete. Now we seek the passion, personal commitment, and financial resources of grateful patients, professional colleagues, foundations, and the business community to bring this vision to life. Dr. Paparella is one of the giants of the past century in otolaryngology. It is now our time to develop the Paparella Center for Hearing and Balance Research at the University of Minnesota so that generations of patients may benefit from its research and teaching.

—Outgoing IHF President Jim Hainlen, Ph.D.

FROM THE EXECUTIVE DIRECTOR'S DESK



Helen Keller, both deaf and blind, once said that of her two disabilities, being in a world of silence, being deaf, she felt, was much worse than being blind. Some people find her comment hard to understand. I'm not sure how I'd answer this if I had to. How would you? What I do know is that before we can develop speech, a precious human function, we must have hearing. Wouldn't it be wonderful to find a cure for deafness and other ear diseases?

Almost all children before the age of five will have at least one ear infection. Ten percent of all children have chronic ear infections, 30+ million Americans have significant hearing loss or deafness, about 40 million have tinnitus (noises in the ear and head), and 90+ million Americans suffer from dizziness or vertigo due to inner ear diseases. These are astounding numbers, and on the rise. Our Foundation's mission continues: to serve, educate, and research on these problems, all so important. Our research lab continues to work hard at finding cures for all diseases of the ear. Through research supported by IHF, thousands of patients have benefitted, but the need is great.

The IHF was founded to address all the needs of people with hearing disorders and other devastating ear-disease, and more strongly than ever we want to enhance our commitment. Whether in a project in Chile, Africa, or India, or in our Support Groups for Tinnitus and Meniere's, or in our ongoing missions, your continuing support of IHF is critical to finding cures for all ear-disease, including deafness. With your help, we can make a world of difference. Thank you for your caring spirit that leads you to make life-changing contributions in support of the IHF and our missions.

—Treva Paparella, Executive Director

Drs. Dawn & Matt Patterson's Ongoing Mission to Senegal

IHF Board Members Drs. Matt and Dawn Patterson have been involved with IHF, and the Senegal project in particular, since 1977. During his Fellowship with Dr. Paparella and the University of Minnesota, Matt learned about the plight of otolaryngologic patients in Senegal and West Africa, and about Dr. Malick Diop's (left) efforts to help them. He contacted a



friend of his from residency, Dr. Steven Snell, in Lawton, Okla., and asked if he would like to join him for a mission to Senegal. They were impressed by the limited resources Dr. Diop had to work with, and by the amazing medical care he provided under the circumstances. Matt comments, "Dr. Diop is one of the best surgeons I've ever worked with. He needs to be, to do those complicated cases with limited anesthesia and surgical instruments."

Dawn had been interested in medical work in the developing world since her undergraduate research at St. Olaf College took her to southern India to study wildlife and conservation issues. She was introduced to efforts to improve the basic medical access to villages in her research area, and during graduate school she studied the impacts of social issues such as health care on conservation efforts worldwide.

When Matt returned from his mission trip, Matt and Dawn determined that they wanted to continue this work, and organized another mission in May, 2001. This mission included Dr. Bruce Davidson, chairman of the Department of Otolaryngology at Georgetown University, and Randy Ulseth, CEO of First Light Health System, and their spouses, Wendy Root and Jackie Ulseth. They gathered medical equipment from the many rural hospitals that Matt works with, as well as comfort items for patients and their families, donated by local churches, St. Olaf College, the Minnesota Zoo, and Boyd's Bears. They left Minneapolis-St. Paul Int'l Airport with 22 crates of equipment and supplies, including a microscope and a drill, both purchased by IHF.

Dr. Diop greeted them in Dakar, and they got immediately to work. Dawn, Wendy and Jackie sorted supplies and equipment for distribution to the various hospital departments, while Randy assembled the microscope, drill and other equipment. Matt, Bruce, and Malick spent long days in surgery



IHF Board Members Drs. Matt and Dawn Patterson have been involved with IHF's Senegal project since 1977.

carrying for patients who had walked from as far away as Mali, Mauritania, and Guinea. Dawn, Wendy, Jackie and Randy then visited the wards to distribute new T-shirts, plush toys, and other comfort items. They were amazed to learn that patients and their families, even small children, came from so far away, and once they arrived at the hospital, they often resided there for months until their surgery could be accommodated in the busy schedule, and then for weeks or months more during recovery, since they could not receive follow-up medical care near their homes. The families provided most of what we would consider nursing care. They prepared food in the courtyard, changed bandages and bedding, and generally took care of all but the most pressing medical needs, which were handled by the competent and very busy medical and nursing staff.

Since their experience in Senegal, Matt and Dawn have maintained contact with Malick and have continued to collect supplies from rural hospitals, packing and sending them themselves initially. "We were overjoyed to hear from IHF that they would be willing to help with shipping costs. It allowed us to collect and send more materials, and more often. Given the shortage of supplies overall, doctors are grateful for all that we can send. Any of it is more than what little they have available. To be able to make a small contribution to the efforts of Malick and his staff is a blessing," Dawn says. "We feel the work IHF is doing to help Malick care for the people of West Africa is incredibly important, and we are so glad to be a part of it."

C. Sutherland Retires After 30+ Years in Otopath Lab

I began at the University of MN in 1961 as an electron microscopy technician for the Dept of Medicine. The laboratory was in the sub-basement of Diehl Hall. One year later, I transferred to the Dept of Neurology, on the same level in Diehl Hall, and worked there for three years. I mention the locations because when I was hired by Dr. Duvall to manage the electron microscopy laboratory for Otolaryngology, I was delighted to learn the laboratory was one story up, only one story underground. The next seven years were exciting times. Electron microscopy was a relatively new technology, and the laboratory produced some definitive work on the ultrastructure of the inner ear. When my third child was born in 1972, I left the University to become a full-time mom.



Carolyn Sutherland with IHF President Dr. Jim Hainlen

By 1990, with college tuition to pay, I was ready to return to work. Dr. Goycoolea was involved in research in

Cont. on p. 4

'Thank You' from grateful patients

Dear Friends,

We want to thank IHF and Dr. Paparella for everything you've done to help our son with his hearing loss. We were so upset when we found out that he was not hearing like he should. After tests were completed and aids fitted, our son would comment on hearing things he'd been missing, like birds singing and thunder. It was amazing watching the expression on his face when hearing new sounds around him. Many thanks.

—Lomy

Dear Mrs. Paparella:

I would like to thank IHF and

its board of directors for helping my 3-year-old daughter receive her hearing aids. Without your help she would not have been able to advance with her speech/hearing. We're so grateful for this donation.

—Sincerely, K. Jones

Dear IHF Board of Directors:

Thank you....thank you.... We appreciate all that IHF did to help my son receive his hearing aid. Johnny was falling behind in school, but since receiving his aid, he's doing so much better. Thank you again.

—Jack & Lori

Take Charge of Your Tinnitus

Loud sounds can cause tinnitus, or make existing tinnitus worse. Custom-fit, high-fidelity earplugs should be carried in case you encounter unavoidable loud noise [see www.ata.org/for-patients/how-loud-too-loud]. Visit an audiologist (who can make those custom-fit earplugs) to determine if you need further medical assessment and to evaluate any related hearing loss. But if you suffer tinnitus for a long time, it is important to learn how to self-manage your reactions to it. Education: You may have been told "learn to live with it." But you can

make it less of a problem. Be careful about what you read and hear, as there is both good and wrong information out there. Therapeutic Sound can be very effective for managing tinnitus: soothing sound reduces stress or tension, background sound reduces the contrast between tinnitus and a quiet environment and makes it easier to ignore, and interesting sound keeps your attention, helping you to shift it away from tinnitus. And Stress Reduction can help reduce tinnitus, using physician-approved exercise or relaxation techniques.

SUTHERLAND RETIRES, CONT. FROM P. 2

Dr. Duvall's laboratory. He was also an ENT consultant to the Family Practice Clinic in which my sister Lola was a physician. As they were chatting, Lola mentioned that I was looking for a job. A week later I was back working in the electron microscopy laboratory. One of my first duties was to design an electron microscope laboratory for the Lions Research Building and purchase a new electron microscope being donated to the department by the Lions.

With the retirement of Sherry Fulton in 2002, the Temporal Bone Laboratory, under the direction of Dr. Paparella, was left in my care. Twenty-eight Fellows from around the world have since done research and written papers for the laboratory. It has been a pleasure to work with Dr. Sebahattin Cureoglu, who has helped the Fellows

design and implement their research projects. One hundred and six additional human temporal bones have been collected. Several hundred animal specimens have been sectioned for research. Histology has always fascinated me, and the ear with its many cell-types and complexities is a treasure.



WORDS to the WISE

The poor are hit hardest by hearing loss. Of the 642 million people estimated to suffer from hearing loss, 208 million have moderate-to-severe loss. The U.N. World Health Organization (WHO) recently estimated that 70% of individuals with hearing loss live in developing countries, and only one in 40 of those will have the opportunity to wear a hearing aid.

Protect Your Hearing

Levels of exposure to noise tolerated by some may cause harm in others whose ears may be more vulnerable. If, after you've been exposed to noise, your ears have a rushing, roaring, or ringing sensation, or if you notice that ordinary sounds seem muffled or quieter than normal, you should realize that the noise to which you were exposed was at a damaging level and that you need protection in the future. If this happens, rest your ears for 24 hours, keeping noise-levels below 70 dB. Your ears cannot "get used to" noise. If a certain level doesn't seem to bother you as much as it did, you've lost some hearing, so it's critical protect the hearing you have left. Risk to your hearing depends on how loud is the noise and how long are you exposed. A single brief exposure (such as a firecracker) can damage your hearing. Loss can also occur gradually at much lower levels, with enough exposure over time. Give your ears a chance to recover after any period of exposure. At 91 dB, you can tolerate up to two hours; at 100 dB, damage can occur within 15 minutes; at 112 dB only one minute of exposure can damage your ears, and at 140 dB, immediate nerve-damage can occur. Guns, firecrackers, and jet engines taking off are all louder than 140 dB, so use hearing-protection or your fingers to plug your ears, and move away from the noise, even a few extra feet. If you are exposed to 85 dB for up to eight hours a day, you need at least 10 hours of recovery time at 70 dB or lower. For every 3 dB above 85, maximum exposure-time is cut in half. For children, WHO recommends no exposure above 120 dB. —adapted from *Nat'l Institute for Occupational Safety and Health, 1998.*

IHF News/Activities



Dr. Bevan Yueh, Dr. Peter Roland, Dr. Michael Paparella, & IHF Vice President Bradley Birnberg.

2012 LECTURESHIP & PAPARELLA AWARD TO DR. PETER ROLAND

The recipient of the 2012 Paparella Lectureship, sponsored by the University of Minnesota Department of Otolaryngology Head and Neck Surgery and the International Hearing Foundation, is Peter Roland, M.D. from the University of Texas Southwestern. His lecture was titled "Cochleostomy Placement for Hearing Conservation." A dinner to honor Dr. Roland was celebrated in Minneapolis after the lecture.



Above, Dr. Michael Paparella & Heather Nelson-Weinreich, M.D., and below, with Elizabeth Weidman.

2011 PAPARELLA AWARD

Resident Heather Nelson-Weinreich, M.D., received the award for her research paper Otitis Media and Associations with Overweight Status in Toddlers We appreciate your hard work that was put into your research. Congratulations on this award in clinical otology, established in 1999 by Dr. & Mrs. Michael Paparella through IHF.

2011 EIVIND HOFF AWARD

Medical student Elizabeth Weidman received the award for her research project, "PPAR gamma-mediated induction of transglutaminase in aerodigestive preneoplasia in vitro."



2011 STARKEY GATHERING (above) at the American Academy of Otolaryngology Head & Neck Surgery in San Francisco was the opportunity to catch up, for several Fellows, and associates of the clinic in Minneapolis.



2011 KOREAN DINNER MEETING (above, L to R) Former Paparella Fellows Chong-Sun Kim, M.D., David Lim, M.D., Steven Juhn, M.D., Timothy Jung, M.D. and Tae Yoon, M.D. got together with Treva and Dr. Michael Paparella in San Francisco for a dinner meeting.



Meet IHF Fellow Dr. Hedersteima from Sweden



Hello! I am Christina Forshell Hederstiema from the Karolinska Institutet in Stockholm, Sweden. I am currently a Research Fellow at the Paparella Otopathology Laboratory, spending six months trying to find some answers regarding the intriguing inner ear disease of otosclerosis. Back home I am an Audiological Physician in the Department of Audiology and Neurotology at the Karolinska University Hospital, where I have worked since 1995, after becoming a certified ENT specialist. Besides seeing patients with hearing disorders (mainly babies from the neonatal screening program and adults with acoustic neuroma), I am Director of the program for residents in my department. My PhD thesis in 2009 concerned the potential protective effect of estrogens on hearing function. Since then I have joined other research projects at my institution, mainly focusing on aspects of age-related hearing loss, but also co-supervising PhD students in the estrogen project.

It is fantastic to come and spend half a year here in Minnesota, together with my two teenaged daughters Julia and Sofia, and our dog Havana. Unfortunately my husband is busy in Stockholm and can only come over for shorter visits. It is actually somewhat of a homecoming for me, since I spent my four high school years here in Minneapolis, back in the 70s. My father was working as the Swedish Consul General in Minnesota, so my family lived here for four years. I graduated from Blake High School in 1977, and I am happy to have my youngest daughter Sofia attending 9th grade at Blake during this semester.

I am so grateful for this opportunity to spend time in such a fine research facility, and I want to thank Dr. and Mrs. Paparella for welcoming me, a mature woman in the middle of life! I also want to thank my boss in Sweden, Professor Sten Hellström, for letting me take this time off from work. It is a unique way of obtaining creative perspectives on research, in clinical care, and maybe most of all, in life. Thank you!

20th Annual IHF Golf Classic is June 11 at Crystal Lake G.C.

Don't miss the 20th Annual IHF Golf Classic and Silent Auction, June 11, 2012 12:30 p.m., at the Crystal Lake Golf Club, Lakeville, Minn.

Please call 612-339-2120 for a



brochure/registration materials; \$375 (individual) to \$10,000 (sponsor).

IHF's annual Golf Classic would not be possible without the dozens of volunteers who help coordinate this event, such as the University of Min-

nesota Otopathology Lab staff (center photo, above, at 2011 event) as well as our generous sponsors like Lupient Buick (above). Far left, IHF Fundraiser Matt Blair with Dr. Michael and Treva Paparella of IHF.

MENIERE'S SUPPORT GROUPS



Support groups coordinator Rosie Hulse-Larson (left) and Trac Duong, M.D., guest speaker at the Marlys Soderberg Support Group for Meniere's and Tinnitus for patients and families. Meetings are first Saturday of the month, 10-noon, at Riverside Park Plaza, 701 - 25th Ave. So., Minneapolis. Online support is through durnilw@yahoo.com, who requests that inquirers also please see our Facebook site at <http://www.facebook.com/home.php> and [sk=group 236961243210&ap=1](https://www.facebook.com/home.php?sk=group_236961243210&ap=1).

IHF LISTENS for those who can't hear



We need your help to implement International Hearing Foundation (IHF) programs. Please make your check payable to the International Hearing Foundation and mail to 701 25th Avenue South, Minneapolis, MN 55454.

Here is my contribution in support of better hearing.

\$15.00 \$25.00 \$50.00 \$100.00 \$250.00 Other \$ _____

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The IHF is an affiliate of the Minnesota Medical Foundation, a 501(c)3 charitable organization. For further information about the IHF, please call (612) 339-2120 or visit www.ihf-mmf.org.

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