Aging and Your Hearing

Have you ever gone to a movie and had difficulty understanding characters’ speech? The volume isn’t the problem (as we all know, two things movie theatres accomplish with annoying regularity are increasing popcorn prices and making bigger, louder sound systems); you can definitely hear something, but understanding the dialogue seems to elude you. Or you might have no problem holding a one to one conversation, but try to have that same conversation at a party or in any other noisy environment, and it seems impossible. If you are over 65, you face a common problem: the effects of aging on hearing. Did you know that, by age 40, your inner ear is already undergoing progressive hair cell reduction? These hair cells are vital to normal function of our auditory systems, and they are irreplaceable once lost. In the above movie scenario of difficulty in speech discrimination, the natural loss of hair cells is a possible culprit. Other likely causes of reduced speech discrimination are changes in neural connections between the ears and the brain. At Kresge Lab, both Dr. Hood and Dr. Bobbin address hearing loss caused by aging. Dr. Hood studies the effects of aging on the function of the inner ear and brain pathways, and Dr. Bobbin attempts to prevent or reverse the effects of aging biochemically. Dr. Hood, in a series of studies supported by the American Hearing Research Foundation, identified changes in control of the inner ear by the “efferent” pathways that send information to the ear from the brain. This was particularly apparent for conditions affecting the binaural (both ears) system thought to be important for listening in noise and finding the source of a sound in space.

Wash Out!

(Isadore Postpones Tribute...But Not for Long)

For months, the Kresge staff has planned a tribute for our retiring director, Dr. Charles Berlin. Scheduled for September 27th, the event included six highly respected speakers in the field of hearing science, a catered lunch and a wine reception to conclude the affair. Unfortunately, on Tuesday, September 24th, hurricane Isidore loomed ominously in the Gulf of Mexico, just beginning to break from the Yucatan peninsula and preparing to strike north. With no other choice available, we regretfully cancelled the event, did our best to contact everyone who was already committed to this new date. If you are interested in attending the evening’s wine reception, or for sixty hours, New Orleans endured heavy winds, rain and some flooding, but, by Friday morning, the storm was over. Isidore had left behind a lot of water, but it was not the terrible storm New Orleans has long feared. Returning to work, the Kresge staff resolved to set a new date to honor Chuck, one that would be safe from any more unwelcome tropical guests: December 13th, 2002.

It is our great fortune that our invited speakers are already committed to this new date. If you are interested in attending the evening’s wine reception, or if you’d just like to send along congratulations and thanks to Chuck, please call (504-568-4785), fax (504-568-4785) or email (rmoore4@lsuhsc.edu) Bobby Moore for information.

Our New Director

The L.S.U.H.S.C. Department of Otolaryngology and Head and Neck Surgery is pleased to announce the appointment of Dr. Richard P. Bobbin as the new director of the Kresge Hearing Research Laboratory.

Dr. Bobbin received a B.S. degree in pharmacy from Northeastern University, Boston in 1964, and is a registered pharmacist in the state of Massachusetts. After receiving his Ph.D. in pharmacology from Tulane University under the guidance of Paul Guth, Ph.D. in 1969, Dr. Bobbin spent two years studying auditory physiology with Teruzio Konishi, M.D. in the Neuroscience Center at the University of Florida. Since leaving the University of Florida in 1971, Dr. Bobbin has been part of the L.S.U.H.S.C. faculty. As the recipient of various grants from the National Institutes of Health, the National Science Foundation, and the Deafness Research Foundation, Dr. Bobbin has enjoyed a distinguished scientific career. He has published over 100 articles in numerous scientific journals including: Nature, Journal of Neurochemistry, and the Journal of Pharmacology and Experimental Therapeutics.

Dr. Bobbin has been invited to many institutions as a guest lecturer, and he has spoken at the Kresge Hearing Research Institute at the University of Michigan and the University of Montpellier, France. Dr. Bobbin is a member of the Association for Research in Otolaryngology, the American Society for Pharmacology and Experimental Therapeutics, and the American Society for Neurosciences. Dr. Bobbin is married to Madeline Bobbin, and they have two children, Nathan Vernon, who resides in Colorado and Lori Lee, who resides in New Jersey.
Our raffle, The KAM’s Fund Raffle for Hearing Research, costs $100.00 per chance. Like last year’s raffle, no more than 1,000 tickets will be sold. Your chances of winning the grand prize are no less than one in the tickets sold. That means the lucky winner will receive up to $10,000 cash. The drawing will be held at the end of the summer of 2003. Entering our raffle is easy! Just fill out the enclosed ticket with your purchasing information and mail it back to us.

From Dr. Richard Bobbin

Welcome to the Kresge Hearing Research Laboratory. Undoubtedly, a new director begins his tenure with the idea of changes in mind; some changes are made out of necessity and some simply from a different way of thinking. Before I discuss those changes, however, I want to assure everyone of my commitment to maintaining and evens upsizing the high quality of research accomplished at Kresge. I have been a member of our laboratory for over thirty years, and I certainly want the reputation we have earned through hard work and consistent effort to remain at a high level. One of the greatest tasks I foresee as director is the ability to raise money supporting our research efforts. Elsewhere in our newsletter, you have read about our plans to hold another raffle as a fundraiser next year. I believe this represents our best opportunity to raise the money we use for research, equipment and office staff. In addition to the raffle, I would also like to propose the creation of the Kresge Hearing Research Lab/Friends of KAM’s Fund Development Committee. The creation of a development committee allows us to create contacts with the private sector, plan funding activities, publicly promote the laboratory and generate new interest in the field of hearing research. At this time, we are actively looking for committee members. If you are interested, or know someone involved in the community that would be interested in helping create our fledgling committee, please contact our lab development coordinator, Dr. Richard Bobbin at 388-2463 or email rmoore4@uthsc.edu for more information.

Our Grand Prize this year will be 20% of the tickets sold. That means the lucky winner will receive up to $20,000 cash. The drawing will be held at the end of the summer of 2003. Entering our raffle is easy! Just fill out the enclosed ticket with your purchasing information and mail it back to us.

Steering for Hearing a Success

On a cool January afternoon in New Orleans, the Kresge Hearing Research Lab held its first ever raffle party. The Inn Hotel Select was the site of the raffle party, and we could not have found a better location. The event began with a champagne toast and continued with an impressive array of hors d’oeuvres and desserts served in the hotel’s elegant ballroom, all generously donated to Kresge by Mr. Ray Lazzara. In addition to the delicious offerings, the cool sounds of Ms. Germaine Bazzle and her trio (including Bunchie Johnson and who else but the exquisite Chuck Berlin providing piano accompaniment) soothed our guests’ souls as they enjoyed the afternoon. Just because Kresge did not hold a gala last year does not mean we have forgotten how to throw a party! As the minutes ticked by, the anticipation grew, and several guests felt the urge to improve their chances by purchasing additional raffle tickets.

Before the drawing, we were very happy to honor Mrs. Nancie Roark for her many contributions to the lab over the years. When she worked at Kresge, Nancie was the lab manager and she was an integral part of our lab. She has moved on to higher positions, but Nancie continues to support the lab even though she has moved from Louisiana, and we are always grateful for her enthusiasm, guidance and friendship.

From Dr. Thierry Morlet

Speak to Dr. Thierry Morlet about his research, and his personal devotion and passion for science becomes abundantly clear. Born and raised in Burgundy, France, Dr. Morlet earned his Ph.D. in the neuroscience program at the University of Lyon in France. He established many contacts there, and he continues to collaborate with scientists in Italy, Israel and the United States to this day, giving him excellent role models and invaluable experience.

One of Morlet’s studies (funded by Scientific Learning and ICS Medical) takes him to Meadville, Mississippi where he meets with students (ages 4-10) with language impairment, an inability to speak properly. Since “we speak what we hear,” these children’s language impairment could be due to their inability to hear speech properly. Dr. Morlet’s hypothesis is that some of these children have some kind of hearing impairment that has gone unrecognized. Dr. Morlet believes that, although some children might have tested as having normal hearing (i.e. tested normal for tympanometry, emissions and a normal audiogram), the audiological tests given failed to detect a malfunction in the auditory system in higher centers of the brain. This malfunction probably occurred because of an error in the brain’s development. Some language impaired children can be diagnosed as having a defect in the speech motor pathways of the brain, when in fact, the defect is in the sensory input, somewhere in the brain’s auditory pathways. For example, a child diagnosed with Attention Deficit Disorder (ADD) could in fact have an inability to process sounds in time (two sounds too close together, for example). This type of malfunction in the brain is called a central auditory processing disorder. Since the child cannot process the sounds of language he hears properly, he also cannot replicate it, presenting the appearance of a slow or below average learner.

Not surprisingly, Dr. Morlet views the need for new technology, especially methods and equipment for studying the human brain non-invasively, with tantamount importance. He also has high demands for himself, as he has seen researchers in hearing become more and more specialized in the last ten years. He believes it is the researcher’s obligation to network with colleagues from around the globe and fully understand themselves with current scientific publications so they can remain informed about recent developments in science. Helping this effort, Dr. Morlet believes the breadth of research accomplished at Kresge Lab, from molecular biology to human behavior, is of great benefit as the researchers are all making discoveries concerning the auditory system together and sharing their observations and ideas through their own unique talents and techniques. Dr. Morlet is quick to credit Dr. Charles Berlin for developing and establishing the excellent reputation of Kresge Lab in both the scientific and clinical communities. He acknowledges the KAM’s Fund for purchasing expensive statistical computer programs that analyze the data he and others collect from their studies.

Dr. Thierry Morlet has lived in New Orleans for nearly five years and has recently married Shanda Brashers, an audiologist and instructor here at Kresge Lab. He is a connoisseur of fine wine and even keeps his own cellar in France. Adjusting to life in New Orleans has come easily as he enjoys the food and culture, but relaxing on his front porch with a cool mint julep, enjoying the life of a fine Southern gentleman, is most appealing. One of his old professors (Dr. Michel Jouvet who discovered REM sleep) gave Thierry a lesson he has never forgotten: in research, a good theory is one that does not last more than five years. From this, Thierry knows that resting on his accomplishments or being satisfied with his studies is not allowed; always research, and always strive for new and greater solutions is his message from the learned past.