

# Hear! Hear!



Dear Friends of NOHR Foundation,  
Welcome to our latest venture:  
"Hear! Hear!" the NOHR Newsletter!

2009 has been an exciting year, with NOHR going in many new directions and making new friends. We want to share it all with you.

Thank you during these tough economic times for standing by us and remaining faithful to our goal of curing hearing loss. We are deeply appreciative and grateful.

You can partner with us in several ways: tell your friends about the work we do, share this newsletter with someone you care about, and help us cut our mailing costs by sending back the enclosed envelope with your e-mail address.

It would please us, too, if you could make an investment in the future by giving a donation to NOHR in honor of your children and grandchildren.

On to an exciting and challenging 2010!

My best to all for a happy and healthy autumn,

*Geraldine Dietz Fox*

Geraldine Dietz Fox  
President and Founder

## Inner Ear Hair Cell Regeneration Research Sponsored by NOHR Forges Ahead

Tatjana Piotrowski, Ph.D. of the University of Utah is the Principal Investigator for NOHR's two-year, \$200,000 grant. Her work with zebrafish may help solve genetic mysteries underlying deafness. She writes, "What we learn from zebrafish will tell us which genes need to be activated for hair cell regeneration to occur. This knowledge will then allow us to study why hair cells do not regenerate in mammals, and hopefully, will enable us to jumpstart this process in the future."

Dr. Piotrowski's co-investigator is her husband, Alejandro Sanchez Alvarado, Ph.D, a Howard Hughes Medical Institute Investigator.



Tatjana Piotrowski, Ph.D.

## Spring Events Spread Word about NOHR's Work

### NOHR's 20th Anniversary Celebration Honors Children's Museum Visionary, Nancy Kolb



(from left) Geraldine Dietz Fox; Rita Auritt and Ruth Hirshey Lincoln, Tea Co-Chairs; and Nancy Kolb, Honoree.

Please Touch Museum's CEO and President Nancy Kolb not only took home NOHR's "Distinguished Leadership Award" (a beautiful MacKenzie-Childs tiered plate stand) from our May "Tea." She also took home an exquisite necklace when the key she purchased for a chance at winning it opened

the lock of the "Treasure Chest." How delighted and surprised she was!

Accepting NOHR's tribute, Nancy offered insights on what leadership is all about: "A leader has to be many things to many people: a neighbor, a friend, a counselor, a community advocate. A leader must inspire peers, see opportunities where others may see nothing but challenges, and have an ability to just plain get things done. The best leaders must also be willing to step back and allow themselves to BE led, and to learn from the examples set by others."

Hearing can impact the museum experience, she noted. "I used to think that a noisy children's museum meant a happy children's

(continued on page 3)

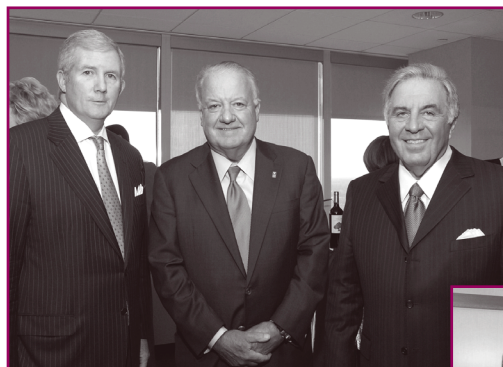


## *Independence Blue Cross Receives NOHR's Appreciation and Thanks*

Atop the health insurer's Philadelphia skyscraper, NOHR gratefully presented our first Corporate Leadership Award to IBC President Joseph A. Frick in April. 100 guests enjoyed the panoramic view, along with delectable hors d'oeuvres graciously provided by IBC and catered by Aramark. How proud NOHR was to recognize IBC's invaluable support for hearing research and to salute IBC's tradition of philanthropic outreach to community causes dedicated to helping disadvantaged people.



Geraldine Dietz Fox (center) presents award to Chris Cashman (left) and Joseph A. Frick, IBC President.



Christopher Cashman (left), Sr. VP of Public & Corporate Affairs – IBC; Patrick J. O'Connor, Vice Chairman–Cozen O'Connor and President, Temple University Board of Trustees (center); and William R. Sasso, Partner–Stradley, Ronan, Stevens & Young LLP and Chairman of the Free Library of Philadelphia Foundation.



Gerry Fox with husband Richard J. Fox, (center) President, Fox Companies and The Honorable John J. Perzel, PA House of Representatives.



Joseph Frick, President & CEO – Independence Blue Cross (left) and Ray Welsh, President & CEO – Mercy Health System.

### *On the Road with NOHR*

Research support for young investigators is a NOHR priority, and we underscore this emphasis with an annual award presented to a promising and talented young scientist at the yearly Association for Research in Otolaryngology Mid-winter Meeting. NOHR's Scientific Review Committee and Medical Advisors nominate and vote to decide the recipient. In Baltimore in February, John V. Brigande, Ph.D. of Oregon Health and Science University, accepted NOHR's check for \$500 and a commemorative plaque. Dr. Brigande's work concerns the genetics of auditory hair cells.

In June, Gerry Fox journeyed to Boston for the 7th Annual Conference on the Molecular Biology of Hearing and Deafness. NOHR was one of the sponsors of the event, which Harvard hosted. NOHR's support helped young investigators attend this prestigious scientific meeting and present their research accomplishments.

### *NOHR Scientific Review Committee Member Receives Prestigious Appointment at NIDCD*



Andrew Griffith, M.D., Ph.D.

The National Institute on Deafness and Other Communication Disorders recently announced that Andrew Griffith, M.D., Ph.D., a NOHR Reviewer since 2005, was named the institute's next Scientific Director.

Previously, Dr. Griffith served as the institute's chief of the molecular biology and genetics section and the Otolaryngology Branch.

Dr. Griffith and his lab have made important discoveries about genes involved in hereditary hearing loss and progressive hearing loss. He has evaluated many proposals concerned with the genetics of hearing loss for NOHR's Research Awards.

We could not be more pleased that a member of NOHR's Scientific Review Committee received this distinguished appointment!

*“Funding for biomedical research is highly competitive and is thus usually very conservative, so embarking on new directions can be difficult to achieve. By making funds available for speculative research projects, the National Organization for Hearing Research is opening up new research areas that may otherwise be neglected.”*

*--comment from 2008 NOHR Grantee*



## 2009 Research Awards

- Investigation in animal model of how age-associated declines in regions of the brain that process speech, the auditory thalamus and cortex, are related to some older individuals' hearing difficulties (*Edward L. Bartlett, Ph.D., Purdue University*)
- Development of mouse model to test experimental genetic therapy to maintain inner ear neurons and auditory nerve fibers after deafness from hair cell loss, relative to improving hearing via cochlear implants (*Kirk W. Beisel, Ph.D., Creighton University*)
- Genetic study utilizing mouse cochleae and microarrays to identify factors in mammals that prevent transformation of inner ear supporting cells to new hair cells after damage, as occurs in birds and fish (*Olivia Bermingham-McDonogh, Ph.D., University of Washington*)
- Developmental study in zebrafish of the gene *six1a*, crucial for both inner ear hair cells and their innervating neurons, relative to the congenital disorder responsible for 2% of profound deafness in children (*Olivier Bricaud, Ph.D., House Ear Institute*)
- Genetic study in mouse model of the potential role of two enzymes in protecting the cochlea from damage from "free radicals" during noise exposure (*Tzy-Wen L. Gong, Ph.D., University of Michigan*)
- Study in primate model of frequency perception at neuron level in midbrain, relevant to a potential new cochlear implant site for individuals lacking an auditory nerve connecting the cochlea to the auditory cortex (*Jennifer M. Groh, Ph.D., Duke University*)
- Investigation of how noise-induced hearing loss affects the auditory nerve's encoding of frequencies characteristic of speech, related to cochlear implant stimulation strategies (*Michael G. Heinz, Ph.D., Purdue University*)
- *In vitro* investigation of how sound conveyed via a cochlear implant through the auditory nerve is initially received by individual neurons in the auditory brainstem, related to speech perception in background noise by CI users (*Katrina MacLeod, Ph.D., University of Maryland*)
- Genetic studies of how the hormone estrogen influences inner ear hair cell development, relative to gender differences in hearing loss (*Jennifer S. McCullar, Ph.D., University of Washington*)

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## NOHR's 20th Anniversary Celebration

(continued from page 1)

museum, but I have learned from NOHR that we should all pay attention to the noise we all make, because high levels of noise can negatively affect children's ability to interact with one another and learn. Because of NOHR, I believe children's museums have become more aware of and responsive to the needs of children with hearing disorders."

More than 170 guests enjoyed a festive afternoon at the Four Seasons Hotel Philadelphia that also included a fun auction of Gift Baskets during the reception, and informative videos and touching speeches during "Tea."



(l-r) Mary Ann Oaks, 2007 Honoree; Gerry Sills, Queen of Tea; and Suzanne Binswanger, 2005 Honoree.



Rita Rome (left) and Carole Haas Gravagno, 2008 Honoree



(l-r) Dorrance Hill Hamilton, 2003 Honoree; Nancy D. Kolb, 2009 Honoree; and Geraldine Dietz Fox, NOHR Foundation President

## 1,800 Auditory Scientists Notified about NOHR's 2010 Research Awards

We recently received proposals for our annual "Seed Money" Research Awards of \$20,000 each from members of the Association for Research in Otolaryngology.

We often mention that discoveries made possible by a "Seed Money" grant from NOHR can lead to a major grant from the National Institute on Deafness and Other Communication Disorders. During 2008-09, James C. Saunders, Ph.D., one of our Medical Advisors, surveyed nearly 400 of NOHR's past grantees. Dr. Saunders is Emeritus Professor of Otorhinolaryngology: Head and Neck Surgery at the University of Pennsylvania.

Dr. Saunders' analysis of grantees' responses led to the conclusion that a

substantial proportion of NOHR Awardees gained about \$106 of additional research support for each \$1 of NOHR funding!

It is only through the generosity of our donors that we are able to foster progress in auditory research. Scientists need your help to produce the experimental knowledge necessary to develop beneficial and curative therapies for communication disorders.

Please use the enclosed envelope to make a contribution towards better hearing health for countless millions of people whose deafness diminishes their quality of life.

As always, we will be grateful for your help in supporting the best contemporary and innovative auditory science.

**NATIONAL ORGANIZATION FOR  
HEARING RESEARCH FOUNDATION**

225 Haverford Avenue, Suite 1,  
Narberth, Pennsylvania 19072

[www.nohrfoundation.org](http://www.nohrfoundation.org)

Phone: 610.664.3135 Fax: 610.668.1428

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***Donor's Generosity Makes  
Possible New Grant  
Opportunity from NOHR***

A type of hearing loss caused by pathology of the cochlea's "stria vascularis," which can affect the elderly, will be studied by a NOHR-supported scientist, thanks to a wonderful two-year, \$50,000 contribution from a New England foundation. The stria vascularis is a tissue involved with the chemical composition of a crucial inner ear fluid.

NOHR issued a special "Request for Applications" for the grant, and a distinguished five-member ad hoc Review Committee is evaluating the proposals we received. Research funding will commence in January 2010.

***Research Awards (cont.)***

- Study of hearing loss from congenital cytomegalovirus, affecting 40,000 babies/year, relative to potential development of a therapy or vaccine (*Albert Park, M.D., Univ. of Utah*)
- Investigation of frequency elements of speech, relative to hearing problems in multi-talker situations (*Stanley E. Sheft, Ph.D., Rush Univ.*)
- Examination of cellular targets of cisplatin, a cancer-treatment drug that may cause hearing loss (*Eric Slattery, M.D., Washington Univ.*)
- Study to identify a stem cell gene in vestibular schwannomas, a common tumor affecting hearing (*Jessica Wang-Rodriguez, M.D., Univ. of Calif., San Diego*)
- Investigation of effects of the hormone estrogen on birds' processing of simple and complex songs (*Sarah M.N. Woolley, Ph.D., Columbia Univ.*)
- Genetic exploration of roles of the outer hair cell protein prestin, necessary for amplification (*Jing Zheng, Ph.D., Northwestern Univ.*)

*When it's over, I want to say: all my life  
I was a bride married to amazement.  
I was the bridegroom,  
taking the world into my arms.*

*When it is over, I don't want to wonder  
if I have made of my life  
something particular, and real.  
I don't want to find myself  
sighing and frightened,  
or full of argument.*

*I don't want to end up simply having visited this world.*

MARY OLIVER

***"Grants provided by NOHR provide a critical niche in the funding of scientific research. A conundrum for a new researcher is that the majority of governmental funded grants require significant preliminary data; however, it is nearly impossible to collect this data without funds. The NOHR Foundation provides scientists such as myself with funds to pursue innovative and exploratory avenues of research."***

*--comment from 2008 NOHR Grantee*