In April of 2007, Emily Tobey, Ph.D., Professor and Nelle C. Johnston Chair in Communication Disorders at the Callier Advanced Hearing Research Center, received a 3-year grant from the NIDCD (National Institutes of Deafness and Other Communication Disorders) entitled, "Long Term Outcomes in Deaf Children Using Cochlear Implants". "What's exciting about it," comments Dr. Tobey, "is that it is a follow-up study I did several years ago with my colleague, Dr. Ann Geers, who is the principal investigator of this new grant."

The other collaborator on the funded study is Ms. Jean Moog, the Director of the Moog Center for Deaf Education in St. Louis, Missouri. Emily, Ann and Jean began working together in the early 90's to determine what would be the best way to measure academic, speech perception, and language performance and how educational factors might play a role on children with cochlear implants. They did a five-year study starting in 1996, which was one of the largest studies ever conducted in the North America, including about 180 cochlear implant children who were 8 and 9 years of age. The collaborative team examined how well the children read, how well their speech was understood by others, and how well they could understand others' speech. Dr. Tobey, Dr. Geers, and Ms. Moog also tried to get a feel for what factors might be related to their environment, including what schools the children were in, how many hours of therapy they received, and what communication modes they used. Factors related directly to the child and his or her family were studied as well, including the child's nonverbal performance IQ and the size of his or her family.

With the new grant, the same children are being brought back, at ages 15 and 16 years of age, to see what the impact of a cochlear implant is on an adolescent. "We want to know if our predictions and observations at ages 8 and 9 years were accurate," says Tobey. "Now that the children are older, how they apply language can be studied as well. When they were 8 and 9 years old, we were learning whether they could learn to read, and now we're learning about how they read to gain knowledge," she says, "It's a fascinating study."
Children and Families

One of the greatest pleasures of my position is the special vantage point it affords me to view the incredibly diverse research and student training that takes place in the School. As I have mentioned before in these messages, the School of Behavioral and Brain Sciences encompasses programs that range from biological laboratories examining the basic mechanisms by which the brain organizes and regulates behavior to research on how girls' and boys' friendship patterns differ; from how infants recognize faces to how the elderly remember music; from how to best address the problems of children with brain injuries to how we process speech in noisy environments.

A continuing theme through many of these programs is a commitment to understanding and promoting positive development for children, and supporting optimal functioning for families, in all the multiple ways that "families" exist. Universities play a unique role in addressing critical societal issues. By developing increased understanding through research, new insights are created and old "truths" are revised. By training tomorrow's professionals and citizens we translate the latest discoveries into new practices.

The School of Behavioral and Brain Sciences has renewed its longtime commitment to bettering the conditions for children and families by proposing, as part of their University's recently completed strategic planning process, to bring its programs and expertise together in a Center for Children and Families. We believe that by bringing investigators together around important themes of investigation at the Center, we will have a greater impact on understanding optimal development. It is anticipated that The Center for Children and Families will become a community and national center of excellence for promoting research and practice. As the School's Callier Center for Communication Disorders and Center for Brain Health have shown, there is an important synergistic "multiplier" in making explicit the School's commitment to important questions.

The Faculty who are leading the formation of this Center have identified 3 themes for its activity, drawing upon existing strength and activity and outlining areas of future development:

1) Parenting Healthy Families
2) Strengthening Interpersonal Relationships
3) Enhancing Thinking and Learning

Each of these domains represent areas where faculty investigators have important expertise and have been shown to be important predictors of positive development.

We are excited about this new initiative and will keep you informed as the Center develops.
An Alumni Success Story: Dr. Rebecca Estes

"I can't say enough positive things about Dr. Jerger," Rebecca comments, "He is a wonderful role model and was an excellent mentor to me as I went through the Ph.D. program."

In January, 2007, Rebecca began working at the University of South Alabama, where she is the Chair of the Department of Occupational Therapy. "It is a lovely area with very nice people," says Rebecca, "and my husband is an Alabama boy, so he is thrilled to be back!"

Rebecca took a winding path to arrive at her current position. After receiving her Associate degree in Occupational Therapy at the University of Kansas, Rebecca Estes decided to take a more "creative" path and attended Texas Woman's University (TWU) and earned a Bachelor's degree in Dance and a Master's degree in Adaptive Physical Education. Working with a grant, Rebecca provided services to educators at public schools as well as direct service to disabled children.

Once Rebecca had explored her creative side and worked with various arts organizations, she chose to return to TWU to earn a second Master's degree, this time in Occupational Therapy, and became a registered occupational therapist. Dr. Estes' work focused primarily on adults with neurological deficits. In 1996, after having spent some time in Florida, Rebecca and her husband, Charles, returned to Texas for Charles' job and Rebecca was asked to teach in the School of Occupational Therapy at TWU.

Rebecca's interest in neurological conditions brought her to the University of Texas at Dallas (UTD), where she earned her doctorate, focusing on a neuroscience major in the College of Human Development and Communication Sciences (now the School of Behavioral and Brain Sciences). Dr. Jim Jerger, Distinguished Scholar in Residence in the Cognition and Neuroscience program at UT Dallas, was her mentor and chair of her dissertation committee. "I can't say enough positive things about Dr. Jerger," Rebecca comments, "He is a wonderful role model and was an excellent mentor to me as I went through the Ph.D. program."

Back once again at TWU, after receiving her Ph.D., Dr. Estes worked as an Assistant Professor and was asked to be the coordinator for the Center for Assistive Technology as well as the coordinator for the Ph.D. program on the Denton and Dallas TWU campuses. After three years, Rebecca was nominated for and received the Mary Mason Lyon Award for excellence in research, teaching, and service.

The chair position in Alabama is challenging and Dr. Estes reports that she enjoys the opportunity to experience leadership and shaping of the department's direction. She has the support of a wonderful faculty and administration. If you would like to catch up with Rebecca, feel free to give her a call or send an email or snail mail message to:

Rebecca I. Estes, PhD, OTR, ATP
Associate Professor and Chair
Department of Occupational Therapy
1504 Springhill Ave. #5108
Mobile, AL 36604-3273
(251) 434-3939
riestes@usouthal.edu
Dr. Alice O’Toole Gives 2007 Kusch Lecture

Dr. Alice O’Toole, Professor in the School of Behavioral and Brain Sciences (BBS), was honored to be selected and gave the 23rd annual Polykarp Kusch lecture in April of 2007 at The University of Texas at Dallas.

The late Polykarp Kusch was Nobel Laureate in Physics in 1955 and came to The University of Texas at Dallas (UT Dallas) in 1972. At UT Dallas, he was Regental Professor and served on the Physics faculty. His distinguished science career was complemented by his superb teaching. Dr. Kusch delighted students with his presentations of physics experiments in his "Phenomena of Nature" classes. When he retired in 1982, UT Dallas established a program of annual lectures with the theme: "Concerns of the Lively Mind" to honor Dr. Kusch.

Dr. O’Toole spoke on "How We Represent and Recognize Faces". Her lecture included an overview of what we have learned in the past 15 to 20 years about the best ways to represent the information in human faces. "This really comes from a triple perspective," says O’Toole. "One is obviously psychological - what you have to extract from any given face to know that face forever. Then, computationally, how do you quantify that information using computer models? And finally, from a neural perspective, how do you store it in terms of the connections between the neurons in your brain?"

The School of Behavioral and Brain Sciences has been well represented in the Kusch Lecture series over the years. Other BBS faculty members who have given a Kusch lecture include Dr. Bert Moore, Dr. Hanna Ulatowska, Dr. Emily Tobey, and the late Dr. Sandy Friel-Patti.

The Dean’s Circle: On the Way to First Class

Would you be surprised if we told you that the state of Texas provides less than 45% of the expenses of the University of Texas at Dallas? How about if we told you that in 2006 Texas spent $500 less per college student than they did in 1991?

Both statements are true.

Now, you probably agree with us that UT Dallas has the makings of a world class research university. Whether you are a former student or a donor, you know the quality of researchers and faculty that are hidden here north of Dallas. But top quality education and research cost money. As the state budget is squeezed tighter and tighter, private donors are an integral part of UT Dallas' funding and are key to the University's vision of becoming a first-rank public research university within 10 years.

In appreciation of our donors of today and tomorrow, we are happy to announce four new donor recognition societies at UT Dallas and the School of Behavioral and Brain Sciences. The University has always been the beneficiary of visionary people who understand the value of higher education on individuals, the city, and the world. Whether you are an alumni or friend of UT Dallas, this means you! In this issue of Nexus, we will detail the Dean's Circle and the President's Associates. Next issue we will roll out the Founder's Society and the Legacy Society.

The Dean's Circle recognizes donors who give $1,000 or more each year to the Dean's Fund at any School. Donors under 35 years of age may become a Dean's Circle member at the $500 level. As a founding member of the Dean's Circle for BBS, your suggestions, regarding donor benefits, will be welcome. Perhaps an annual reception with the Dean?, UT Dallas freebies?, special updates on research and funding? We will be contacting each new Dean's Circle member to schedule a visit, where we will learn how you would like to celebrate the development of this new program. With your support, UT Dallas will soon be recognized as the dynamic, intellectual research force we all know it can be.

The President's Associates are supporters who make an annual gift of $1,500 or more to the Office of the President. These funds are allocated to the areas of greatest need in the University and help build on the President's initiatives. Members of this special group will receive the President's Viewpoint publication, an annual gift from UT Dallas, and invitations throughout the year to special campus events.

Please contact Dr. Dena Jackson, Director of Development at 972-883-2138 or dena.jackson@utdallas.edu with questions on these societies.

We look forward to welcoming you as a member!
Dr. Peter Assmann earned his undergraduate degree with a double major in psychology and philosophy from the University of Waterloo. His lifelong interest in the study of speech and language led him to the linguistics program at the University of Alberta where he earned a Master's degree and doctoral degree with a specialization in speech perception.

The research question that captured Dr. Assmann's attention and continues to be a major focus of his research is called the "cocktail party problem": how is it that we can follow a single person's voice and understand what that person is saying when there are several conversations taking place, dishes clattering, and music playing? People rely on cues from lip-reading and the fact that different voices come from different spatial locations, and they may differ in pitch. Dr. Assmann began to investigate the perceptual basis for the remarkable ability to separate speech from competing sounds, during his post-doctoral fellowship with the Medical Research Council in Nottingham, UK.

Dr. Assmann's studies of speech perception continued when he joined University of Texas at Dallas in 1989. He moved on to look at more complex situations in connected speech where people use contextual clues to anticipate what a person is going to say next. Most of Dr. Assmann's studies and experiments have tested people with normal hearing, but he has also collaborated on research on cochlear implant users. "The ability to listen while surrounded by background noise is especially problematic for cochlear implant users and for hearing-impaired listeners in general," he comments.

Over the last five years, Dr. Assmann's interests have returned to a classic problem in speech perception, namely how we can hear the same word spoken by people whose vocal tracts are very different (e.g. children and adults), and still recognize that it's the same word. This is called the "speaker normalization" problem. Understanding how listeners solve this problem is important for models of speech perception and has implications for cochlear implants and hearing aids that transpose speech into the frequency region of better hearing.

Peter Assmann, Professor, teaches undergraduate courses in the Psychology program, including Animal Communication and the History of Psychology, along with graduate courses on Speech Perception and Speech Science.

### Faculty Profile: Dr. Peter Assmann

Dr. Peter Assmann

Dr. Assmann earned his undergraduate degree with a double major in psychology and philosophy from the University of Waterloo. His lifelong interest in the study of speech and language led him to the linguistics program at the University of Alberta where he earned a Master's degree and doctoral degree with a specialization in speech perception.

The research question that captured Dr. Assmann's attention and continues to be a major focus of his research is called the "cocktail party problem": how is it that we can follow a single person's voice and understand what that person is saying when there are several conversations taking place, dishes clattering, and music playing? People rely on cues from lip-reading and the fact that different voices come from different spatial locations, and they may differ in pitch. Dr. Assmann began to investigate the perceptual basis for the remarkable ability to separate speech from competing sounds, during his post-doctoral fellowship with the Medical Research Council in Nottingham, UK.

Dr. Assmann's studies of speech perception continued when he joined University of Texas at Dallas in 1989. He moved on to look at more complex situations in connected speech where people use contextual clues to anticipate what a person is going to say next. Most of Dr. Assmann's studies and experiments have tested people with normal hearing, but he has also collaborated on research on cochlear implant users. "The ability to listen while surrounded by background noise is especially problematic for cochlear implant users and for hearing-impaired listeners in general," he comments.

Over the last five years, Dr. Assmann's interests have returned to a classic problem in speech perception, namely how we can hear the same word spoken by people whose vocal tracts are very different (e.g. children and adults), and still recognize that it's the same word. This is called the "speaker normalization" problem. Understanding how listeners solve this problem is important for models of speech perception and has implications for cochlear implants and hearing aids that transpose speech into the frequency region of better hearing.

Peter Assmann, Professor, teaches undergraduate courses in the Psychology program, including Animal Communication and the History of Psychology, along with graduate courses on Speech Perception and Speech Science.

### School of BBS Grants Since September 2006

<table>
<thead>
<tr>
<th>Principal Investigator(s)</th>
<th>Grant Title</th>
<th>Awarded By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emily Tobey &amp; Ann Geers</td>
<td>Long-term Outcomes of Cochlear Implantation in Early Childhood</td>
<td>National Institutes of Health/National Institutes of Deafness and other Communication Disorders</td>
</tr>
<tr>
<td>Alice O'Toole</td>
<td>Face Recognition Performance: Humans versus Machines</td>
<td>Technical Support Working Group</td>
</tr>
<tr>
<td>Margaret Owen</td>
<td>Study of Early Child Care and Youth</td>
<td>National Institutes of Health/National Institute of Child Health and Human Development</td>
</tr>
<tr>
<td>Tres Thompson</td>
<td>Nootropic Effects of Microhydrin and Microhydrin-Plus in Aging</td>
<td>RBC Life Sciences</td>
</tr>
</tbody>
</table>

**Dr. Peter Assmann**

Dr. Assmann earned his undergraduate degree with a double major in psychology and philosophy from the University of Waterloo. His lifelong interest in the study of speech and language led him to the linguistics program at the University of Alberta where he earned a Master's degree and doctoral degree with a specialization in speech perception.

The research question that captured Dr. Assmann's attention and continues to be a major focus of his research is called the "cocktail party problem": how is it that we can follow a single person's voice and understand what that person is saying when there are several conversations taking place, dishes clattering, and music playing? People rely on cues from lip-reading and the fact that different voices come from different spatial locations, and they may differ in pitch. Dr. Assmann began to investigate the perceptual basis for the remarkable ability to separate speech from competing sounds, during his post-doctoral fellowship with the Medical Research Council in Nottingham, UK.

Dr. Assmann's studies of speech perception continued when he joined University of Texas at Dallas in 1989. He moved on to look at more complex situations in connected speech where people use contextual clues to anticipate what a person is going to say next. Most of Dr. Assmann's studies and experiments have tested people with normal hearing, but he has also collaborated on research on cochlear implant users. "The ability to listen while surrounded by background noise is especially problematic for cochlear implant users and for hearing-impaired listeners in general," he comments.

Over the last five years, Dr. Assmann's interests have returned to a classic problem in speech perception, namely how we can hear the same word spoken by people whose vocal tracts are very different (e.g. children and adults), and still recognize that it's the same word. This is called the "speaker normalization" problem. Understanding how listeners solve this problem is important for models of speech perception and has implications for cochlear implants and hearing aids that transpose speech into the frequency region of better hearing.

Peter Assmann, Professor, teaches undergraduate courses in the Psychology program, including Animal Communication and the History of Psychology, along with graduate courses on Speech Perception and Speech Science.
We Want to Know About You and You Want to Know About Your Classmates for the Alumni Network!

Please fill out the following questionnaire and mail it to:
Nancy Orlowski, Editor & Development Officer
The University of Texas at Dallas, GR41
800 W. Campbell Rd.
Richardson, TX 75080-3021

Or register at:
www.utdallasalumni.com

Name at graduation (if changed): Last ___________________
First __________________ MI ___________________________
Home Address ______________________________________
City _____________ State _____________ Zip ___________
Home Telephone ____________________________________
Email address ______________________________________
Web address ________________________________________
Major/Degree(s) ___________________________________
Employer __________________________________________
Title or Position ___________________________________
Business Address ___________________________________
City _____________ State _____________ Zip ___________
Business Phone _____________________________________
Other (Special projects or interests) ___________________
Awards, recognitions, professional involvement, marriages, babies? _________________________________

THIS EDITION’S “SCRAMBLER”

Unscramble each group of letters and write the words on the dashes. Then transfer each letter on a numbered dash to its correspondingly numbered dash at the bottom and you’ll complete the sentence.

R A H C S T __ __ __ __ __ __ 3 5 6
E R T N __ __ __ __ 7 8
D R A E Y __ __ __ __ __ 1 2 4

Visit www.bbs.utdallas.edu to learn more about our nationally recognized

Answer to last edition’s “Scrambler”: News & Events

The University of Texas at Dallas is an equal opportunity/affirmative action university.