Grant Enables Creation of the New School of BBS Center for Children and Families

Thanks to a $350,000 challenge grant from the Dallas-based Meadows Foundation, The University of Texas at Dallas School of Behavioral and Brain Sciences houses a new Center for Children and Families. The center offers an array of clinical and community outreach activities, organized around three initiatives: parenting healthy families, strengthening interpersonal relationships, and enhancing thinking and learning.

Services include:
- Assessments for social and emotional problems, social-skills training and intervention programs for children from birth through adolescence.
- Current information about optimal child development and a place to turn for support, including effective strategies and referrals for parents.
- Outreach to local practitioners, lectures and forums on child development for the general public and interdisciplinary analysis of social policy.

“We have some of the nation’s leading investigators in a number of areas of child development. Through the new center, we will ensure that this expertise is available to benefit the Dallas community,” says Bert Moore, Dean of the School of Behavioral and Brain Sciences.

“We are deeply grateful for the Meadows Foundation’s leadership in supporting this important community resource. We hope to obtain additional support to maximize the impact for children,” Moore added.

The Center for Children and Families is located on the main UT Dallas campus in Richardson and complements the School’s other two nationally renowned community-oriented research and clinical centers, the Callier Center for Communication Disorders and the Center for BrainHealth.

Researchers and clinicians at the center will draw on the University’s extensive collaborative efforts with community agencies already in place, including the Dallas, Richardson and Plano independent school districts, The Childcare Group, Shelton School, Baylor University Medical Center, Children’s Medical Center of Dallas, Presbyterian Healthcare System, Parkland Healthcare System, the Autism Treatment Center and others. For more information on the Center, including a Spring 2009 lecture series, visit http://ccf.utdallas.edu.
Message from the Dean

Bert S. Moore, Ph.D.
Dean, School of Behavioral and Brain Sciences

Many of us periodically receive “reviews”. These are assessments of our performance, discussions of our objectives and diagnoses of how we might perform better. Indeed, in addition to job reviews, our spouses, children, parents, friends and colleagues often feel called to offer us counsel as to how we might be better people. While reviews are not always comfortable experiences, when done thoughtfully and well, they provide an individual, or an organization, the opportunity to reflect on their goals and think how to best reach those goals.

Reviews are an important part of the University. Faculty are reviewed annually, courses are evaluated each semester, various institutional and programs accreditation agencies do periodic reviews and deans are reviewed by the faculty and the Provost of the University. The School of Behavioral and Brain Sciences recently received a review of its programs. This review, mandated by the University to occur every five years, was performed by a team of distinguished faculty and administrators from other universities as well as from within UTD.

In preparation for our review the School faculty conducted a “self-study”. We collected data on all aspects of our programs: student training, research and community outreach. We had small group meetings with students and faculty to assess how well we are performing our mission and to think about changes and goals for the next interval.

The Review Team carefully studied our document and then spent 2 ½ days gathering their own assessments through interviews with students, faculty and university administrators. They asked us pointed questions about certain practices and pressed us about our goals for the future. They then provided us with a detailed report outlining strengths and weaknesses and suggestions regarding their view of opportunities for future development.

I am pleased to report to you that, while they made numerous helpful suggestions as to how we could improve our programs, their evaluation of the School was complimentary. The committee prefaced their report by saying, “To preview our overall findings, the review committee overall assessment is extremely positive. This is a distinctive, non-traditional school that serves an important mission, that is functioning quite well and merits future investments.” So, we are pleased, and relieved. We take seriously the committee’s recommendations for improvement, and we see an exciting path for future development, as well as being “better persons”.

Bart Rypma Receives Grant to Study Age-Related Memory

In September of 2007, Dr. Bart Rypma, an Associate Professor in the School of Behavioral and Brain Sciences, was awarded an R01 grant from the National Institutes of Health entitled, “Physiological, neural, and cognitive bases of age-related working memory change.”

The purpose of the grant is to explore the neural basis for the cognitive changes that accompany aging. A prominent feature of aging is short-term memory decline. “Older people experience momentary lapses in thinking about what it is they are doing, or they can find themselves getting easily distracted, problems that could be caused by short-term memory decline” comments Dr. Rypma. Dr. Rypma plans to study how the aging brain causes such problems by using fMRI (functional magnetic resonance imaging), which is often used to study and measure the brain’s functions. fMRI is not a perfect tool because it relies on blood flow to the brain as a marker of neural activity rather than measuring the activity directly. Dr. Rypma explained that one problem in comparing younger and older brains with fMRI is that age-related blood-flow differences can be mistaken for brain-activity differences. Thus, one part of the grant is to improve the measurement techniques that are applied with fMRI in order to minimize such measurement errors.

Another part of the grant is aimed at trying to exploit these measurement improvements by applying them to investigation of the brain basis of short-term memory changes with age. “We hope the things we discover doing this work on normal, healthy aging people will ultimately improve the quality of life in older adults, as well as provide information that will translate to age-related illnesses like Alzheimer’s Disease,” says Rypma.
Tiny Technology Packs a Pain-Relieving Wallop

As a doctoral student in applied cognition neuroscience and a previous telemedicine company founder, Will Rosellini had a strong background in science and business. Seven areas of graduate study have helped build his leadership acumen. He has earned a law degree as well as master’s degrees in business administration, accounting, computational biology and neuroscience. He is currently pursuing master’s degrees in nanoscale physics and in regulatory affairs.

Almost one out of every four American adults reports suffering from chronic pain, and with the increase in the aging population, that number is projected to increase.

MicroTransponder Inc., an early stage medical device company stemming from Neuroscience Professor Larry Cauller’s research, is quickly becoming the poster child for UT Dallas’ new initiative to turn university research and technology into commercial products.

Dr. Cauller’s breakthrough neural interface technology holds the promise of providing treatment options for millions of adults suffering from chronic pain.

The young company’s phenomenal year started with a $1.38 million grant from the Texas Emerging Technology Fund and then received funding from a NIH National Institute of Neurological Disorders and Stroke commercialization grant.

Since then, president and CEO Will Rosellini has led the company through a marathon stretch of business competitions, picking up recognition and additional funding along the way.

Dr. Cauller credits Rosellini with the insight to make his technology, a wireless neurostimulator, relevant to a huge population with an unmet need. “Will found the market for my technology. Thanks to his vision, I believe we’ll be able to help many people,” said Dr. Cauller.

Dr. Cauller now serves as MicroTransponder’s chief science officer. He and the device team, consisting of electrical engineering professors J.B. Lee, Jin Liu, and Hoi Lee, are working to fine-tune the technology, while the Institute for Innovation and Entrepreneurship and the Office of Technology Commercialization provide Rosellini guidance with the venture development.

Those who suffer from chronic pain often have difficulty with such daily activities as walking, sleeping and household chores. The suffering costs $60 billion a year in lost productivity and more than $14 billion in 2006 was spent on treatment. MicroTransponder’s breakthrough technology will help treat patients who suffer from intractable, chronic pain, often associated with diabetic neuropathy and arthritis.

Current treatments for these patients include aspirin, narcotics, and spinal cord stimulators, in which wires are implanted around the spinal cord. But according to a survey sponsored by the American Pain Society in 1999, 4 out of 10 people with moderate to severe chronic pain have not found adequate relief.

MicroTransponder’s product would offer a much-needed alternative to current treatment options. “Drugs don’t allow the patient to target the area of pain, and spinal cord stimulators simply can’t reach pains in hands and feet,” said Rosellini.

“The real advantage of neurostimulation is time control,” Cauller adds. “You can turn it on and off as needed.”

UT Dallas News Center
Faculty Profile: Dr. Emily Tobey

For as long as she can remember, Dr. Emily Tobey wanted to be a speech therapist. She received her undergraduate degree from New Mexico State University in Las Cruces, where she had a research opportunity as a sophomore student to study whether paraprofessionals delivered speech therapy as well as master level speech language pathologists.

Following her undergraduate work, and with hopes of moving to a “big city,” Dr. Tobey received an offer to be a speech therapist for the Orleans Parish School System in New Orleans, LA. “That was fascinating,” comments Tobey. “There were five schools that I served, elementary through junior high, with all different kinds of clients.” About midway through her first semester there, the School System discovered Tobey was fluent in American Sign Language and she was reassigned to become a teacher of the deaf.

After enduring positive, as well as challenging experiences in her new classroom, Dr. Tobey decided she wanted to go to graduate school and became part of the new Masters training program in Speech Language Pathology at the LSU Medical Center. Concurrently, she worked in the Kresge Hearing Research Laboratory, located within the Medical Center. “As I progressed through that program, I was curious as to why information I was learning about in the lab was not used in the clinic, so I asked if I could do a thesis,” says Dr. Tobey. The thesis turned out well and she applied to be an investigator for part of a large National Institutes of Health grant.

She then went to the City University of New York (CUNY) to work towards her Ph.D. Around her third month there, she learned her research project had been funded by the National Institutes of Health (NIH), thus starting her 32 year history of funding from the NIH. Dr. Tobey traveled back to New Orleans to complete her dissertation and conduct a study examining why some people with normal hearing have auditory processing disorders, or trouble processing speech.

During her graduate studies, Dr. Tobey was introduced to cochlear implants by researchers from Australia and participated in the first FDA clinical trials for the implants in the US. Dr. Tobey was fortunate that her research allowed her to study in different countries, including Australia, France, England and Italy. She currently leads the research efforts of the Dallas Cochlear Implant Program (DCIP) a joint enterprise between UT Dallas, UT Southwestern Medical Center, and Children’s Medical Center.

In 1994, Dr. Ross Roeser, a Professor with UT Dallas, asked Dr. Tobey if she would apply for the Nelle C. Johnston Chair, which she holds today. Tobey joined UTB in 1995 and was charged with building a research program that integrated student training with research endeavors. “I have done everything from functional brain imaging to early infant babbling to looking at how adolescents learn to read and gain general knowledge,” Dr. Tobey comments. She currently co-directs the Pediatric Aural Rehabilitation Program with Dr. Linda Thibodeau and teaches courses in cochlear implants, functional brain imaging, and a course in ethics and research integrity. “I love teaching because I think UTD has really good students,” comments Tobey.
Recent School of BBS Grants

<table>
<thead>
<tr>
<th>Principal Investigator(s)</th>
<th>Funding Agency</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larry Cauller</td>
<td>microTransponder / NIH</td>
<td>microTransponder Stimulators for the Treatment of Chronic Pain</td>
</tr>
<tr>
<td>John Hart</td>
<td>UT Southwestern / Department of Veteran Affairs</td>
<td>Complex Verbal Function and the Basal Ganglia in Gulf War Illness</td>
</tr>
<tr>
<td>Marquez de la Plata</td>
<td>National Institutes of Health</td>
<td>Neuroimaging Biomarkers of Outcome for Diffuse Axonal Injury</td>
</tr>
<tr>
<td>Michael Motes</td>
<td>UT Southwestern / National Institutes of Health</td>
<td>Dissociation of Neural Mechanisms Mediating Working Memory Subsystems</td>
</tr>
<tr>
<td>Margaret Owen</td>
<td>National Institutes of Health</td>
<td>Father Care: Levels, Sources and Consequences</td>
</tr>
<tr>
<td>Denise Park</td>
<td>National Institutes of Health / National Institute on Aging</td>
<td>Center for Healthy Minds</td>
</tr>
</tbody>
</table>

Alumni Profile: Laura Morgan

Laura Morgan

Laura obtained her Early Childhood Education undergraduate degree from the University of North Texas. She was then advised by her parents – and had in her own mind as well – that it would be a good idea to get a Masters degree before entering the "real job world".

“I was immediately attracted to the Human Development and Early Childhood Disorders (HDECOD) masters program at UTD,” commented Laura, where she started in July of 1998, and finished in May of 2000. During her time at UT Dallas, Laura was a research assistant and measured how babies responded to different kinds of music at Parkland Hospital, and was a Child Life Assistant at Children’s Medical Center where she talked to different families and patients to make their hospital stays easier.

After getting her graduate degree, Laura decided to go into education as a Special Education Teacher and was chosen to be a team leader, which she "absolutely loved" and did for six years. “I think a lot of things that came second nature to me as a teacher were because of my preparation in the HDECOD program."

In the Summer of 2006, Laura shifted gears and began working to collect data and measure growth and progress for different schools in Plano, TX, which she still does today. From semester to semester, Laura assesses progress of minority sub-populations to see if the needs of those children are really being met. “My goal is to be able to go back to schools with this data and help the children progress with new interventions."

To enhance her future work and life experiences, Laura has applied and hopes to join the Ph.D. program in Psychological Sciences in the School of Behavioral and Brain Sciences. We wish her the best!
The School of Behavioral and
Brain Sciences
www.bbs.utdallas.edu

The University of Texas at Dallas
GR 41
800 W. Campbell Rd., 316905
Richardson, TX 75080-3021

RETURN SERVICE REQUESTED

Attention Alums!
Become a member at:
http://alumni.utdallas.edu

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 and Marketing Coordinator
The University of Texas at Dallas
800 W. Campbell Rd., GR 41
Richardson, TX 75080-3021

Want to give a gift to The School of BBS?
Visit: www.bbs.utdallas.edu

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.

Y E H M R __ __ __ __

L F E S I __ __ __ __ __

N L A C E D __ __ __ __ __

Visit www.bbs.utdallas.edu and learn more about our new Center for

9 2 7 6 12 1 4 11

&

5 10 3 7 6 7 4 8

Answer to last edition’s “Scrambler”:
Psychological Sciences