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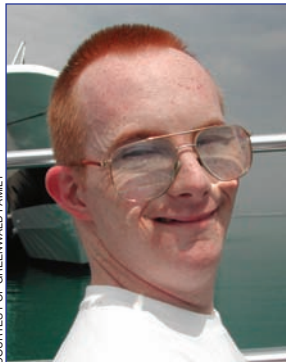
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Discovery

Advancing Down Syndrome Research

By Jan Rosemergy

Not so long ago, most children with Down syndrome did not live past childhood because of serious heart and other medical problems. One of the achievements of research and practice is that today individuals with Down syndrome have a life expectancy approaching 60 years. While much is still to be learned about health issues in Down syndrome, perhaps an even greater need is to make advances in the quality of life. Vanderbilt Kennedy Center researchers are working to meet these challenges.



Keith Greenwald, 33-years-old, is employed, loves to travel, and lives in Memphis, Tennessee, with community supports from West Tennessee Family Solutions.

“We are striving to create a real synergy between research and the clinics and programs that serve individuals and families affected by Down syndrome,” said Robert Hodapp, Ph.D., professor of special education and co-director of the Vanderbilt Kennedy Center Family Research Program.

Population-Based Studies

Hodapp and his colleague Richard Urbano, Ph.D., research professor of pediatrics, are using a population-based approach to collect data about many of the basic demographic, health, family, and other characteristics associated with Down syndrome. They are using large-scale databases, including Tennessee State records of all births, deaths, divorces, and hospitalizations over periods beginning as early as 1990. By linking these records, they have been able to initiate several ongoing studies examining divorce and hospitalization.

Divorce

Urbano and Hodapp examined the amount, timing, and correlates of divorce among parents of children with Down syndrome. Compared with families of children who had no identified disabilities, parents of children with Down syndrome showed slightly lower rates of divorce—contrary to commonly held beliefs. However, when parents of children with Down syndrome did divorce, their divorces more often occurred early on, within the first 2 years after the birth of the child.

In both groups, divorce occurred more often when parents were younger in age, but both education and rural living status resulted in important differences in divorce rates. When either parent had not completed high school, divorce in both groups was more likely to occur, but the pattern was much more pronounced among parents of children with Down syndrome. Among these fathers, the combination of having not completed high

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Parent Perspective on Down Syndrome Research

By Sheila Moore

Before I became the executive director of the Down Syndrome Association of Middle Tennessee, I was a new mom with a beautiful baby boy born with Down syndrome. I not only had the normal fears that all news moms had, but I also was not prepared for the special issues that accompany a baby with Down syndrome.



Matthew and Sheila Moore

Almost 17 years later, what I have learned to value most is the research done in the area of Down syndrome. As a new mom, I was too overwhelmed with the day-to-day issues to even give a thought of how helpful and lifesaving that research has been.

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Director's Message

Mental Health



Pat Levitt, Ph.D.

I have written previously about mental health issues in my Director's Message, but my most recent trip to Washington D.C., as a member of the Advisory Council for the National Institute of Mental Health, brings this back to the fore. At our meeting, we had the privilege of hearing from the Director of the National Institutes of Health, Dr. Elias Zerhouni, who provided some startling statistics regarding mental health.

The World Health Organization published a report in 2002, noting that mental health disorders account for over 40% of the populations with chronic disabilities world-wide. The next closest disorder was heart disease, at 5%. When you combine this statistic with the fact that individuals with a developmental disability may be two to five times at

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Advancing Down Syndrome Research

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school and living in a rural area led to a very high risk of divorce.

“While we don’t know why the risk of divorce is greater for rural families with less educated fathers, it may be related to the ways in which rural areas are poor in resources,” Hodapp said. “Families have to find and access services, which is likely more difficult for rural families and even more difficult for rural families who are less educated. Researchers, service providers, and public policy makers need to pay more attention to issues of parental education and rural living.”

Hospitalization

Urbano, Hodapp, and Stephanie So, Ph.D., research assistant professor of economics and pediatrics, are using State Hospital Discharge Records to examine hospitalizations of children with Down syndrome during their first 3 years of life.

“Our findings show a pattern of hospitalization of infants with Down syndrome that occurs early and often,” Urbano summarized. Half of all infants or toddlers with Down syndrome were hospitalized one or more times (not counting birth).

Understandably, this pattern was especially pronounced among infants who had congenital heart defects. The large majority of hospitalizations occurred within the child’s first year, often within the first 3 months. In addition to heart defects, the most common reasons for hospitalizations were respiratory illnesses.

An implication of this finding is that prevention and treatment of respiratory illnesses require more attention,” Urbano said.

Psychopathology

Although considerable research has focused on older adults with Down syndrome and their risks for dementia, few studies have examined other severe disturbances in youth or young adults with Down syndrome. Elisabeth Dykens, Ph.D., professor of psychology, has recently investigated psychopathology in 56 teens and young adults who were seen over a 2-year period in a specialized, outpatient psychiatric clinic for persons with Down syndrome. Co-authors of the study were Bhavik Shah, M.D. (UCLA) and Karen Summar, M.D. (Vanderbilt University).

“Based on the research literature, we expected to find increased rates of depression,” Dykens said. “Surprisingly, instead we found an unexpectedly high rate of severe psychiatric problems, with only a small percentage also having depression.”

Of the 56 individuals in the sample, 43% were diagnosed with psychosis, and only 11% of those had a co-occurring depressive disorder.

Unexpectedly as well, 79% of patients with psychosis were women. In this sample, psychosis and severe psychopathologies were just as common



Explorers Unlimited Academic Camp not only served youth but also provided an opportunity to study health outcomes in parenting.

in adolescents and young adults as they were in older adults.

Although based on a clinical sample, this study nonetheless provides an intriguing look into psychiatric findings in some adults with Down syndrome.

Language Intervention

Children with Down syndrome have characteristic difficulties in grammar abilities, expressive language, and pronunciation and articulation.

A recent Vanderbilt Kennedy Center study with 6 children (4-7 years) with Down syndrome provided preliminary evidence of the feasibility of simultaneous treatment of grammatical and speech-comprehensibility problems. The study was conducted by Stephen Camarata, Ph.D., professor of hearing & speech sciences, Paul Yoder, Ph.D., professor of special education, and Mary Camarata, M.S., assistant professor of hearing & speech sciences.

The intervention involved “recasts.” A speech recast is an adult restating but adding information on sound pronunciation to what a child has just said. For example, if a child says, “This is a wion [lion],” the recast might be “Yes, lion.” A grammatical recast is an adult restating but adding grammatical information to what a child has just said. For example, if a child says, “She sleep,” the grammatical recast might be “Yes, she sleeps.” Typically, these types of recasts are not used in the same treatment session. This study differed by using “broad target recasts” in which both speech and grammatical recasts are used in the same treatment session.

The researchers found that speech comprehensibility improved in 4 of 6 participants. After treatment sessions, 5 of the 6 participants used more words in their sentences than they had before treatment, in sessions that did not include any modeling of recasts. This preliminary study suggests that the broad target recast intervention is promising for improving speech-comprehensibility and sentence length in children with Down syndrome, which is a long-standing challenge.

Sibling Research

Researchers interested in siblings of individuals with

disabilities and The Arc U.S. comprise the National Sibling Research Consortium, established in 2003 and led by Ann Kaiser, Ph.D., professor of special education and director of the Vanderbilt Kennedy Center Family Research Program, and Hodapp.

The Consortium is conducting research on lifespan experiences and outcomes for siblings in families that include individuals with disabilities. The goal is to develop evidence-based recommendations for public policy, as well as practices to support siblings and their brothers and sisters with disabilities.

In Spring 2006, Hodapp and Urbano (with help from the Consortium and The Arc of the U.S.) conducted a national, web-based survey of adult siblings of persons with disabilities.

Almost 1200 responses were received, and 280 of those respondents were siblings of a

brother/sister with Down syndrome. Compared to siblings of persons with other conditions, siblings of brothers/sisters with Down syndrome reported closer, more affectionate, and more positive relationships. Such relationships are, however, not as close when the brother/sister with Down syndrome is aged 45 years and older.

“We have only begun to understand the issues and needs of siblings of older individuals,” Hodapp observed.

Other Studies

Vanderbilt Kennedy Center researchers are conducting additional studies involving individuals with Down syndrome and/or their families. Two studies involve language interventions, and a third study involves speech processing in children with Down syndrome or Williams syndrome. Sleep and its relation to daytime behavior is being investigated in children with Down syndrome between the ages of 5 and 17. In another study, researchers are examining the concerns, strengths, health, and well-being of parents raising sons or daughters with different types of developmental disabilities, including Down syndrome. A study of behaviors, physical health, and family functions in families with adolescents with Down syndrome also is beginning. For information see StudyFinder at kc.vanderbilt.edu/studyfinder.

National Research Coalition

The Down Syndrome Research Coalition is a national initiative aimed at increasing research, with leadership from the National Down Syndrome Society and the National Down Syndrome Congress. Coalition members currently are developing a research agenda; Vanderbilt Kennedy Center contributors are Hodapp, addressing family issues, and Dykens, addressing psychopathology issues.

“As one of the few centers across the country that is both a Developmental Disabilities Research Center and a University Center for Excellence in Developmental Disabilities, we have the capacity to translate our research findings into practice and policy,” Hodapp said. “That’s our challenge when it comes to Down syndrome.” ●

Parent Perspective from page 1

Had it not been for research, my soon-to-be 17-year-old son would likely not have lived past age 10. Research that resulted in open heart surgery for Matthew when he was 5-years-old helped insure that he would live way into adulthood and that he would have the physical stamina to work and play.

Research in other health-related issues associated with Down syndrome helped my son have better vision and hearing, more restful sleep, and obtain an early diagnosis of celiac and thyroid disease. It is because of the success of Down syndrome research that I am now happily dealing with what Matthew will need throughout his longer lifespan.

We need even more research. What responsibility

do we as parents have in supporting and applying new research to improve the quality of life of our family members with Down syndrome?

I believe that had it not been for the activism and strong stance of parents like us, the great increase in the quality and quantity of life for people with Down syndrome would not have occurred. Now, we have to be better activists and to take stronger stances if we are to duplicate the gains of the last two decades.

So, parents, what role are we playing in supporting and facilitating further research in Down syndrome? Join us in learning more about research foundations and their roles in local, national, and worldwide research. Help us dispense new knowledge and encourage research for the next generation. ●

Reprinted with permission, from the Fall 2006 newsletter of the Down Syndrome Association of Middle Tennessee.



William Spickard has benefited from Vanderbilt Kennedy Center reading research. A Vanderbilt Kennedy Reading Clinic Scholarship for a child with Down syndrome has been endowed in his name.

Director's Message from page 1

greater risk for a co-occurring mental illness, it is no wonder that many of our Vanderbilt Kennedy Center investigators are dedicated to studying mental health conditions.

Dr. Zerhouni provided another important fact—that the vast majority of mental illnesses have their roots in prenatal and childhood development. It has become increasingly clear that children begin to exhibit signs that reflect their increased risk for expressing a full-blown mental illness later in life. The challenge, he noted, is to become far better at identifying the causes and signs, in order to reduce the risk and to improve prevention.

Finally, everyone applauded as Dr. Zerhouni emphasized the need to look for more opportunities to bring research findings to practice. Perhaps our most important challenge is to arm service providers

in the community with the most advanced knowledge and best tools that can improve the quality of life for those individuals with mental illnesses or co-occurring developmental disabilities.

It seemed to me, listening intently, that Dr. Zerhouni needed to visit the Vanderbilt Kennedy Center, because our great research and our community programs are doing just what the director ordered.

This was highlighted at a recent Leadership Council luncheon, where we held a vibrant panel discussion with Bruce Compas, Elisabeth Dykens, and Craig Kennedy, three of our most outstanding Center investigators. They talked about their mental health research and clinical work with children who have chronic illnesses, such as cancer; children and teens with unique mental health and co-occurring cognitive disabilities; and individuals who have aggressive or self-injurious behaviors.

Most striking, to me, was both the fascination with the topic and the surprise expressed by our Leadership Council members and guests, who did not realize that the Vanderbilt Kennedy Center has many investigators who are actively partnered with our great Departments of Psychiatry, Pediatrics, Psychology and Human Development, Special Education, and even the Vanderbilt Ingram Cancer Center to tackle some of the most difficult issues of mental health and cognitive impairments that we face.

We continue to be national trend-setters, and, if I may be so bold, we are evolving as a model for what needs to be done more broadly on a national level.

Internet Resource

- National Institute of Mental Health
www.nimh.gov ●

Primer

Down syndrome

- occurs in an average of 1 out of every 700-1,000 births
- is the most prevalent chromosomal cause of intellectual disability and most cases are not familial (heritable)
- affects both males and females of all ethnic and socioeconomic backgrounds
- has distinctive characteristic facial features
- results in higher than normal risk for many medical conditions, most notably congenital heart disease (most correctable by surgery), hearing and vision impairments, leukemia, and Alzheimer's disease
- is characterized by an average life span (55 to 60 years on average) that, although shorter than the general population, has quintupled over the course of the 20th century

- has distinctive cognitive, language, and behavioral profiles
- in general, has higher levels of adaptive behavior (e.g., self-care, getting along with others) than of intelligence
- results in serious maladaptive behavior or psychopathology less often and less severely relative to others with intellectual disability
- results in successful functioning in integrated school, living, and work environments
- shows continued adaptive development over adolescent and even adult years if a stimulating environment is provided

Source: Dykens, E. M., Hodapp, R. M., & Finucane, B. M. (2000). *Genetics and mental retardation syndromes: A new look at behavior and intervention*. Baltimore: Brookes.

Internet Resources

- National Down Syndrome Congress
www.ndscenter.org
- National Down Syndrome Society

www.ndss.org

- National Sibling Research Consortium
kc.vanderbilt.edu/kennedy/research/siblingconsortium.html
- Down Syndrome Association of Middle Tennessee
www.dsamt.org
- Down Syndrome Assn Memphis & the Mid-South
www.dsamemphis.org

Vanderbilt Kennedy Center and Vanderbilt Resources

- Sibshops
kc.vanderbilt.edu/kennedy/community/sibshop.html
- StudyFinder
kc.vanderbilt.edu/studyfinder
- Tennessee Disability Pathfinder
www.familypathfinder.org
- Vanderbilt Down Syndrome Clinic
www.vanderbiltdownsyndromeclinic.com
- Vanderbilt Kennedy Reading Clinic
kc.vanderbilt.edu/kennedy/community/reading.html ●

Vanderbilt Kennedy Center for Excellence in Developmental Disabilities

Improving Care Coordination in Dual Diagnosis

By Traci Fleischman



Robert Fletcher, D.S.W.

“Many fallacies about dual diagnosis still exist,” stated Robert Fletcher, D.S.W., chief executive officer of the National Association for the Dually Diagnosed (NADD). “Myth #1 is that individuals with disabilities cannot have a verifiable psychiatric disorder. The reality is

that the full range of psychiatric disorders can be represented in persons with intellectual disabilities.”

Fletcher countered myths, presented realities, and provided guiding principles for care coordination as the keynote speaker at a statewide conference held June 7 at the Vanderbilt Kennedy Center. He spoke to a diverse audience of family members, advocates, residential service providers, psychiatrists, health care providers, related service providers, and behavior analysts who work with individuals with a dual diagnosis of developmental disability and mental illness.

Myth #2, said Fletcher, is that medication treatment is used to control maladaptive behaviors. “Although pharmacotherapy may be the first-choice treatment for some psychiatric disorders, such as major depression or schizophrenia,” he continued, “some behaviors such as self-injury and aggression are too nonspecific to be considered as direct targets for medication therapy.” He urged viewing medication as one aspect of balanced, habilitative treatment that might also include behavioral interventions, therapy or counseling, family supports, and quality of life opportunities.

Myth #3 is that persons with intellectual disabilities are not appropriate for psychotherapy. Fletcher stressed that level of intelligence is not a sole indicator for appropriateness of therapy, which can range from verbal therapy approaches to nonverbal therapies such as art, movement, and dance therapies. He also recommended specific strategies for promoting mental wellness to help people better cope with daily problems: listen, reflect, probe, support, facilitate problem solving, evaluate outcome.

Countering Myth #4, Fletcher emphasized that the mental health and intellectual disability service systems can work collaboratively to serve individuals with intellectual disabilities and mental illness. Fletcher outlined four guiding principles for

services. First, services should be determined on the basis of comprehensive assessment of both the mental health needs and developmental disability needs of each individual. Second, services should be based on individual needs and not solely on either mental health or developmental disability diagnosis. Third, service collaboration between mental health and developmental disability systems is essential. Finally, services provided to the individual should be consistent with what the person wants and what supports are needed.

Components of comprehensive services include family support, housing, outpatient and inpatient mental health care, crisis prevention and intervention, positive behavioral support, vocational/employment services, day services, transportation, and medical and dental services.

Fletcher identified a framework to improve care coordination that includes a comprehensive approach to policy development and planning; and cross-system planning, training, and assurance and a case review system.



“Treat care coordination as seriously as you do your budget,” Fletcher urged, “and if you need expert assistance to forge care coordination, get it.”

Fletcher announced that a new diagnostic tool will be available in 2007, the *Diagnostic Manual for Persons with Intellectual Disabilities (DM-ID)*.

Health Care

A panel on “How Special Health Care Needs Affect Behavioral Symptoms and Treatment” was led by Craig Kennedy, Ph.D., professor of special education and pediatrics and UCEDD training director.

Angela Becker, R.N., Vanderbilt Kennedy Behavior Analysis Clinic, emphasized that health and behavior are intertwined and present challenges in caring for

individuals with developmental disabilities.

“Caregivers and families are an invaluable resource to interpret and explain behavioral changes,” explained Becker. “They are the eyes, ears, and voices for those who have difficulty communicating when they may be in distress or pain.”

Transition to Adulthood

Although care coordination is needed across the lifespan, it is especially critical when an individual is leaving the educational system and entering the adult service system. A panel “Transition to Adulthood: Improving Lifelong Outcomes” was led by Elise McMillan, J.D., UCEDD associate director and parent of a teen with a developmental disability.

A highlight was an overview of Project Opportunity. “The Project involves on-site training for 18- to 22-year-olds with disabilities for jobs in health care,” said Sara Ezell, project coordinator at Monroe Carell Jr. Children’s Hospital at Vanderbilt. The goal is to place students as fulltime employees.

Tennessee Services

Accessing Tennessee services was the focus of the final panel (see Resources below). Panelist Carol Rabideau, L.C.S.W., UCEDD social worker, emphasized the need to take care of caregivers. “There is a need for education for families and caregivers in order for families to have reasonable expectations and enjoy one another,” noted Rabideau.

The conference was sponsored by the Community Inclusion Project (CIP), Vanderbilt Kennedy Behavior Analysis Clinic; the Mid-Tennessee Interdisciplinary Instruction in Neurodevelopmental Disabilities (MIND) Training Project; and the Vanderbilt Kennedy Center UCEDD. CIP is funded by the Tennessee Council on Developmental Disabilities, the Tennessee Department of Mental Health and Developmental Disabilities, and the Tennessee Division of Mental Retardation Services.

Resources

National Association for the Dually Diagnosed
www.thenadd.org

Vanderbilt Kennedy Behavior Analysis Clinic
kc.vanderbilt.edu/kennedy/community/bdclinic.html

Tennessee Disability Pathfinder—Search “Dual Diagnosis”

kc.vanderbilt.edu/tnpathfinder/searchdb/

MIND Training Project

www.vanderbiltchildrens.com/MIND



Treatment and Research Institute for Autism Spectrum Disorders

Screening for Autism

By Traci Fleischman



Professionals need to have assessments that reliably indicate developmental concerns and are easy to use. Developing a screening tool to identify children on the autism spectrum at younger ages has been a longstanding research goal for Wendy Stone, Ph.D., TRIAD director. By identifying children at 24 months, children can begin to receive specialized early interventions.

“The goal in health care and education is to diagnose a problem as early and accurately as possible, and, given the fiscal climate, as cost-effectively as possible,” explained Pat Levitt, Ph.D., Vanderbilt Kennedy Center director. “Early diagnosis means early interventions, and there is no disorder in which this is more important than for autism.”

The Screening Tool for Autism in Two-Year-Olds (STAT) is an interactive screening measure consisting of 12 items in the areas of play, imitation, and communication, which research has shown to be the main indicators for an autism spectrum disorder.

“The STAT was developed to differentiate between children with autism and children with other developmental disabilities, and to be a play-based interactive screener that is fun for both the examiner and the child,” explained Amy Swanson, project manager for STAT research and development.

The STAT was developed by Stone, professor of pediatrics and psychology, in collaboration with Opal Ousley, then a graduate student under her mentorship. Stone has been working on the STAT for over a decade. In June 1999, the Office of Special

Education and Rehabilitation Services, U.S. Department of Education, provided funding to continue the development of the STAT by studying its concurrent and predictive validity with large samples. Stone continues to ensure that the screening tool is useful, quick, and enjoyable for both children and professionals.

“Wendy Stone and her team have brought their considerable research creativity to bear on this extremely important issue of autism research by developing the STAT, a tool that will be embraced by health care and education professionals alike for its ease of use and accuracy,” stated Levitt.

As an interactive screening tool, the STAT provides qualitative information that parent checklists cannot. Administration of the STAT takes about 20 minutes and was designed for use by a wide variety of professionals.

“The STAT is a really nice tool for clinicians to use to get a quick screening on whether or not a child needs to go further with a diagnostic evaluation,” stated Swanson. The STAT is not meant to be a diagnostic measure.

Training workshops for the STAT are held in a small group format. Professionals from all over the United States come to these workshops, where they learn about the development of the STAT, its psychometric properties, and how it can be used.

“We spend a large amount of time going through the STAT and talking about the administration, the scoring, and other things to keep in mind while screening children,” Swanson said.

Later in the workshop, attendees are able to test their screening skills with children as part of their training.

“The next phase of the training is sending videotapes home with the workshop participants and having them score the tapes to assess reliability,” Swanson continued. “Trainees also are required to administer two STATs on their own and to send us the videotapes so we can give them feedback on their materials, administration, and scoring. After they have attained reliability with us, they become certified to use the STAT.”

At the present time, the STAT is disseminated only within the context of the training workshops. The materials may not be duplicated to train others. The one exception is that after achieving certification, individuals may train others with whom they work directly, as long as they go through a similar process of achieving reliability with those they train.

A CD-ROM is currently being developed in both English and Spanish. The disk will take the place of much of the training that is currently being conducted in workshops. Professionals will be able to order the CD-ROM, a ready-made STAT kit, a manual, protocols for administration, and scoring sheets. This product is in the development stages and is expected to be available in late 2006.

Stone is using the STAT in studies that examine the early development of social orienting in younger siblings of children with autism spectrum disorders before the age of 2. For more information on these studies, link to “autism” on kc.vanderbilt.edu/studyfinder, the Vanderbilt Kennedy Center’s web-based list of ongoing research studies involving children or adults, with or without disabilities.



The Screening Tool for Autism in Two-Year Olds involves interactive, play-based activities.

If you are a service provider who works professionally in a setting with children from birth to 3-years-old and are interested in obtaining STAT training, complete the application on Services Provided/STAT page on the TRIAD website, www.TRIADatvanderbilt.com; or contact (615) 936-1705; email TRIAD@vanderbilt.edu.

Leading the Vanguard of Discovery



BRUCE COMPAS, PH.D.

Patricia and Rodes Hart Professor of Psychology & Human Development
Professor of Pediatrics
Vanderbilt Kennedy Center Investigator
Joined Vanderbilt Kennedy Center 2002

Research Interests

My research interests include observing the effects of stress on physical health and psychopathology, and observing processes of coping and self-regulation in response to stress and adversity in children, adolescents, and adults. Out of this comes the development of interventions to enhance the ways that individuals and families cope with stress.

Principal Investigator

- Family cognitive-behavioral prevention of depression, National Institute of Mental Health
- Neurocognitive sequelae in pediatric cancer, National Cancer Institute/Vanderbilt Ingram Cancer Center Pilot Grant

Clinical Interests

My current work is focused on children, adolescents, and families coping with cancer, chronic pain, or depression. I am interested in the psychological and biological processes involved in the effects of stress and the ways that individuals cope with stress related to each of these important clinical problems.

National Service and Awards

- Fellow, American Psychological Association (Division 27, 1991; Division 12, 1993)
- Charter Fellow, American Psychological Society
- Ranked as 22nd Highest Impact Author in Psychology (mean number of citations per publication), 1986-1990, Institute for Scientific Information

- University Scholar Award, 1994-95, University of Vermont
- Celebration of Excellence Award, Pizzagalli Corporation, 2001

Selected Publications

- Grant, K. E., Compas, B. E., Thurm, A. E., McMahon, S. D., Gipson, P. Y., Campbell, A. J., Krochok, K., & Westerholm, R. I. (2006). Stressors and child and adolescent psychopathology: Evidence of moderating and mediating effects. *Clinical Psychology Review*, 26, 257-283.
- Compas, B. E., Boyer, M. C., Stanger, C., Colletti, R. B., Thomsen, A. H., Dufton, L. M., & Cole, D. A. (in press). Latent variable analysis of coping, anxiety/depression, and somatic symptoms in adolescents with chronic pain. *Journal of Consulting and Clinical Psychology*.
- Compas, B. E. (in press). Psychobiological processes of stress and coping: Implications for resilience in childhood and adolescence. *Annals of the New York Academy of Sciences*.

Education

B.A. (with honors), 1973, Psychology, University of California, Los Angeles
M.A., 1975, Clinical Psychology, University of California, Los Angeles
Ph.D., 1980, Clinical Psychology, University of California, Los Angeles

Attraction to Developmental Disabilities Research

Stress and adversity place burdens on individuals and families throughout the lifespan. However, the ability to cope with stress changes with development in complex ways. Therefore, the study of coping with stress and adversity and the implications of stress for physical and mental health are best approached from a developmental perspective. In the research we conduct in our lab, we are interested in identifying developmental differences in coping, and in creating and testing interventions to help children, adolescents, and families learn to cope more effectively with stress.

Reasons for Kennedy Center Membership

The Vanderbilt Kennedy Center offers extraordinary resources for developing and conducting psychological research. These range from outstanding resources for seeking and securing external funding for research, to resources to facilitate interdisciplinary research. The important questions we are faced with in mental health cannot be addressed by a single discipline. The important ideas and discoveries are going to come from the collective efforts of researchers from multiple perspectives and disciplines. The Vanderbilt Kennedy Center provides a context to develop and foster these relationships. ●

Stuttering & Stress

By Melanie Moran

Children who stutter often face greater challenges managing their behavior and emotions than other children, Vanderbilt Kennedy Center researchers have found, offering new insight into how to help these children in a more holistic way.

“Our findings indicate that young children who stutter are more apt to be emotionally aroused, less able to settle down once aroused, and less able to control their attention and emotion during everyday stressful or challenging situations,” said Tedra Walden, Ph.D., professor of psychology and a co-author of the research.

“We have long thought emotional development influenced childhood stuttering; however, until such findings as ours, we’ve lacked data to support such beliefs,” said Edward G. Conture, Ph.D., professor of hearing and speech sciences and a co-author of the research. “These new findings tell us that when parents tell clinicians, for example, that excitement increases their child’s stuttering, clinicians should try to see how and when certain emotional states increase or maintain the child’s stuttering. Clinicians need to pay more attention to what parents observe about what impacts their child’s stuttering.”

The research team included Vanderbilt researchers Jan Karrass, first author of the research, Corrin Graham, Hayley Arnold, Kia Hartfield and Krista Schwenk. The research is in press in the *Journal of Communication Disorders*.

The researchers were interested in understanding the relationship between how children who stutter are affected by and handle emotional stimulation, as well as their ability to control their attention during everyday situations.

To examine this relationship, the researchers used a standardized test of emotions, surveying the parents of 65 3- to 5-year-old children who stutter and 56 children of the same age who do not. The parents filled out a 100-question survey designed to determine how the children react to emotional events and how well they are able to control these emotions. The children participated in two laboratory tests to gauge their language use and speech abilities to ensure that the only speech-language difference between children who do and do not stutter, at least for this study, was restricted to stuttering.

The researchers found three primary differences between young children who stutter and those who do not. The children who stutter were more emotionally aroused by everyday stressful or challenging situations than their non-stuttering peers. It took these children a longer time to settle back down once they had become aroused. In addition, the children who stuttered were less able to control their attention and were more likely to become fixated on a distraction than the children who do not stutter.

The research was supported with funds from the National Institute of Mental Health, the National Institute of Child Health and Human Development, the National Institute of Deafness and Other Communication Disorders, and Vanderbilt University. (Excerpts from *Vanderbilt Register*, July 3, 2006, reprinted with permission.) ●

Accolades

Claudia Avila-Lopez, disability resource specialist and bilingual social worker for Tennessee Disability Pathfinder, has received her certification as an information and referral specialist from the **Alliance of Information and Referral Systems (AIRS)**. Certification is based on a combination of skills, knowledge, and work-related behavior. Melissa Fortson, disability resource specialist, and Carole Moore-Slater, director of Tennessee Disability Pathfinder, also have AIRS certification.



Claudia Avila-Lopez

Tennessee Legislature calling for the Division of Mental Retardation Services to establish a task force to conduct a statewide needs assessment and to develop a plan to provide cost-effective home- and community-based services for Tennesseans with developmental disabilities other than intellectual disabilities. Dykens is professor of psychology, Vanderbilt Kennedy Center associate director, and director of the Vanderbilt Kennedy Center for Excellence.



Elisabeth Dykens, Ph.D.

neuroscientist and neuropsychologist. Lashley's experiments on the brain mechanisms of learning, memory and intelligence helped inaugurate the modern era of integrative neuroscience. The award is made in recognition of Kaas's work on the integrative neuroscience of behavior. Previous recipients include Nobel laureates David Hubel, Roger Sperry and Torsten Wiesel; Paul Greengard and Eric Kandel; and Edgar Douglas Adrian.

David Lubinski, Ph.D., professor of psychology, won the **National Association for Gifted Children's (NAGC) 2006 Distinguished Scholar Award** for his work on the Study of Mathematically Precocious Youth (SMPY). It is a planned 50-year longitudinal study of over 5,000 intellectually talented participants, identified before age 13. His framework for conceptualizing intellectual talent is useful for identifying early signs (and different kinds) of intellectual distinction and also points to ways to facilitate its development. This model has received empirical support through an extensive and ongoing program of longitudinal research. This award is NAGC's highest honor.



Camilla Benbow, Ph.D.

Camilla Benbow, Ed.D., Patricia and Rodes Hart Dean of Education and Human Development and professor of psychology, was appointed by **President George W. Bush to the National Science Board**, an independent body that oversees the National Science Foundation. The National Science Board provides

advice to the President and Congress on matters related to science and engineering, in addition to its oversight role for the National Science Foundation. Benbow also was nominated to serve on the **Tennessee Education Leadership Commission**.

Anne Corn, Ed.D., professor of special education, received the **Mary Kay Bauman Award for Education of Students with Visual Impairments and Blindness** from the **Association for Education and Rehabilitation of the Blind and Visually Impaired**. This is the highest award given for contributions in the field.



Anne Corn, Ed.D.

Corn's acceptance speech emphasized how one's teaching, one's career, and one's professional community must all work together for teachers of students with visual impairments and certified orientation and mobility specialists to provide an appropriate education to their students.

Elisabeth Dykens, Ph.D., has been appointed to the **Tennessee Developmental Disabilities Task Force**. With the advocacy of The Alliance for Disability Policy, the Task Force was authorized by a bill passed by the

Melissa Fortson, disability resource specialist for Tennessee Disability Pathfinder, has been **elected to the Board of the Tennessee Alliance of Information and Referral Systems (TNAIRS)**. TNAIRS is an affiliate of AIRS, an organization that provides a professional umbrella for all information and referral providers in both public and private organizations across the nation.

Carolyn Hughes, Ph.D., professor of special education, has been appointed a member of the **Alignment Nashville High School Committee**. Alignment Nashville is a city-wide project that aims to connect resources and organizations that will help Metropolitan Nashville Public Schools. The project will provide students with the skills and support they will



Carolyn Hughes, Ph.D.

need to become successful in their academic careers and postsecondary education. Alignment Nashville is part of a national planning project, funded by a grant to Mayor Bill Purcell from the U.S. Conference of Mayors. Nashville was one of two cities selected. The grant is designed to increase mayoral participation in the improvement of the public school system, specifically focusing on issues of dropout and high school restructuring.

Jon Kaas, Ph.D., Distinguished Professor of Psychology and professor of cell and developmental biology, will receive the **2006 Karl Spencer Lashley Award** from the **American Philosophical Society**.

The award was established in 1957 by Lashley, a member of the Society and a distinguished



Jon Kaas, Ph.D.

Terri Urbano, Ph.D., M.P.H., R.N., attended the **National Working Conference on Emergency Management for Individuals with Disabilities and the Elderly**, held in June in Washington, D.C. This meeting brought together state leaders from the Division of Health, Emergency Management, and Homeland Security to work with their counterparts from the fields of disability and aging. Urbano is director of health and associate director of training for the Vanderbilt Kennedy University Center for Excellence. Urbano, other members of the Tennessee Developmental Disabilities Network, and State of Tennessee agency representatives have begun coordinated planning for Tennessee.



Terri Urbano, Ph.D.

In Memory

John Jay Conger, Ph.D., professor emeritus of clinical psychology and psychiatry, University of Colorado Health Sciences Center, passed away on June 24, 2006. Conger was a member of the Kennedy Center's National Advisory Committee for several years in the 1970s and 1980s and chaired the Committee. A distinguished clinical and developmental psychologist, he served as dean of the University of Colorado Health Sciences Center. He was co-author of a textbook in developmental psychology that set a standard for the field. ●



Susan Gray School *Where Knowledge Meets Nurture*

Peabody College of Vanderbilt • Vanderbilt Kennedy Center

Training—Not Just for Teachers Anymore

By Courtney Evans

When thinking of training opportunities within the Susan Gray School (SGS), teacher training may be the first type to spring to mind. In fact, each academic year SGS does provide undergraduates and graduates in special education, early childhood education, and teaching and learning programs experience in teaching in classrooms and community settings that include young children with developmental delays and typically developing children. However, SGS also offers less obvious training opportunities for students preparing for careers in the areas of nursing; psychology; leadership, policy, and organization; and business—to name a few.

Nursing

“Part of the Susan Gray School’s mission is to support academic endeavors throughout Vanderbilt University,” said Brittany Nelson, clinical course coordinator for the Vanderbilt School of Nursing Pediatric Nurse Practitioner Program (PNP). “The placement of PNP students in the classrooms at the School helps to fulfill that mission.”

Nelson’s nursing students conduct health and developmental screenings of SGS students. This allows the nurses in training a valuable opportunity to work with toddler and preschool-aged children, both those with developmental disabilities and those who are typically developing. At the same time, it provides parents with developmental and health assessment information on their children.

“All findings from developmental and health screening assessments are shared with teachers, and any developmental or medical concerns are then relayed to the parents who can have these concerns evaluated by the child’s primary care provider,” explained Nelson. “In this way both the nursing students and the SGS children and parents are benefiting from the relationship.”

“The relationship between the trainees and the students is based in reciprocity,” said Michelle Wyatt, SGS assistant director. “For example, while gaining experience in doing medical assessments, nursing students are helping to give our children positive experiences in ‘going to the doctor.’ One group of nursing students left their white coats behind for the children, and that has helped the children not to be intimidated by ‘scary white coats.’”

Psychology Research

Georgene Troseth, Ph.D., assistant professor of psychology at Peabody College and Vanderbilt Kennedy Center member, has brought her



Vanderbilt students Libby Williams (higher education administration) and Megan Welsh (special education) helping plan the School’s fundraiser, “Holidays Around the World”

class on cognitive development to SGS to conduct observational research studies at the end of each semester for 4 years.

“I’ve found that bringing my students to the Susan Gray School is a wonderful way for them to learn the ‘nuts and bolts’ of designing and carrying out a research study,” Troseth commented. “They learn first-hand the amount of work that goes into any systematic collection of data on human behavior. This makes them appreciate research on a whole new level.”

Patti van Eys, Ph.D., assistant clinical professor of psychology at Peabody College, has students practice cognitive assessments and work with “non-directive play therapy” (a process of interpreting the underlying meaning or symbolism behind a child’s play) with the SGS students.

“My students tell me that testing the preschoolers really helps them hone their skills because preschoolers are wiggly and unpredictable and sometimes just very funny. This helps them to see that one must keep on one’s toes,” van Eys said.

Leadership, Policy, and Organizations

Students in Peabody College’s Department of Leadership, Policy, and Organizations enrolled in the course “Fund-Raising for Higher Education”

had hands-on training designing a marketing and development plan for Susan Gray School. The course is taught by Timothy Caboni, Ph.D., lecturer in leadership and organizations.

“The plan systematically addressed the challenges of generating voluntary support and attracting interest from a broader swath of the local community,” Caboni said. “At the end of the process, SGS was given a working document, which may be used to guide advancement programming. Doing this type of exercise gives the students an opportunity to take concepts discussed in class and apply them to a functioning organization. Additionally, working in a group with a client is invaluable when preparing for careers in advancement. The real challenge in creating a development strategy is coming up with an idea which can actually be implemented. Students have to transition very quickly from the abstract to the tangible.”

Business

The success of the School’s “Holidays Around the World” fund-raising event was due in part to the efforts of students in the Masters of Business Administration program from the Owen Graduate School of Management who helped with marketing and acquiring prizes.

“A project like this is beneficial for the students because they are able to test their marketing skills in a ‘real world’ setting,” said Timothy Vogus, Ph.D., assistant professor of management. “I think it is perhaps more beneficial to see the impact that their actions and skills can have on the community and a worthy cause. Building ‘socially responsible’ business people is a significant component of the Owen education. Linking to the Susan Gray School and its critical mission gives them the opportunity to put socially responsibility into practice.”

Training Mission

“Having these relationships with a wide variety of departments and organizations—from within Vanderbilt and beyond—are critical to the mission of the School,” said Ruth Wolery, Ph.D., SGS director. “The Susan Gray School is about children growing and learning together, and it is about their differences being normalized. It is about acceptance, about everyone being a part and a member of the Susan Gray School family. Belonging, or inclusion, is a common value in special education, and I want students in other fields to have an opportunity to see this value being implemented and working.” ●

UCEDD Training Provides Invaluable Experience

By Courtney Evans

Our nation's University Centers for Excellence in Developmental Disabilities (UCEDDs) work in partnership with community and state service systems. To provide high-quality services, providers in many disciplines must be well-trained in evidence-based practices, and states need adequate numbers of service providers in both urban and rural areas.

Like other UCEDDs, the Vanderbilt Kennedy Center UCEDD provides two types of training:

- preservice training for Vanderbilt students enrolled in degree programs, and
- continuing education for practicing professionals, paraprofessionals, individuals with disabilities and family members.

UCEDD Preservice Training

"The aim of preservice training is to promote interdisciplinary educational activities that prepare students to support individuals with disabilities and their families" says Terri Urbano, Ph.D., M.P.H., R.N., UCEDD associate director of training.

The Vanderbilt Kennedy Center clinics and summer camps are UCEDD model service programs that provide training for future professionals.

Behavior Analysis Clinic

The Behavior Analysis Clinic provides in-depth assessments of the causes of behavior problems,

and develops family-oriented person-centered interventions. It is the only university-based setting in the Southeast that provides advanced training in developmental disabilities and problem behavior for behavior analysts, psychiatrists, nurse-practitioners, general educators, special educators, and related-services professionals.

Behavioral analyst Nea Houchins-Juarez, M.A., supervises interns enrolled in a variety of academic programs. She indicates that having interns from different disciplines benefits families, because each intern brings a different knowledge base to the families they serve.

"I'm interested in getting certified in behavioral analysis," states intern, Amy Michelle Casey. Along with a team of interns and supervisors, Casey works with families in the Clinic conducting interviews and initial behavioral assessments. They then transition into a series of eight home visits where they work with the families to create and to put intervention plans into place.

"I am getting a lot of one-on-one time with the families in the child's natural environment," Casey says. "I am getting experience learning how to consult and problem solve. The internship has allowed me to be hands-on. I'm not just observing. I am getting to do it, and at the same time receiving a lot of support. That is invaluable to me."

Camps

"Doing" is what drew clinical psychology student, Carlos Tilghman-Osborne, to be a counselor at the TRIAD Social Skills Camp.

"My Ph.D. program has been so research-focused that the camps were a great way to jump in and work with the kids," says Tilghman-Osborne.

Another counselor, Grace Shelby, also a student in clinical psychology,

cites problem-solving, using behavior plans, and working directly with families as invaluable for her professional development.

"Not only have I gained experience working with a population I knew very little about, but I feel like I have learned a lot about implementing programs and program development," Shelby said.

Future Directions

A UCEDD Interdisciplinary Training Council has been established to promote the collaboration of faculty and students across disciplines.

"A hidden benefit of the training programs is the development of new relationships with others who share our mission and goals," Urbano said. ●



MELANIE MAY
Carlos Tilghman-Osborne

Camp Effective for Entire Family

By Courtney Evans

The Vanderbilt Kennedy Center summer enrichment camps have become highly effective tools for encouraging growth and learning in children and in young adults with special needs. One reason for this effectiveness is that they take creative yet very structured approaches to assessing and working with a camper's individual needs, all the while keeping family functioning in the forefront. Sherrie Martin, mother of 18-year-old camper, Terrell Martin, discovered that not only was the Transitions Summer Camp an opportunity for her son to attain necessary life skills as he makes his transition into adulthood, but it also was an opportunity for her to become a more effective parent.

"Terrell is turning 18 this year, and so I was very attracted to the idea of a summer camp that would teach him life skills," said Martin. "I wanted to get him involved in something he could use. It was awesome to see him working at the dry cleaners putting together coat hangers and sweeping the floors. I am his mother, but I admit that I didn't really know what Terrell was capable of doing. As a parent, I feel so proud to see that Terrell can go to work everyday and complete the tasks assigned to him."



PHOTO COURTESY OF MARTIN FAMILY
Sherrie, Keonna, and Terrell Martin

Transitions Summer Camp focuses on guiding young adults (ages 16-22) toward self-fulfillment, and on teaching techniques for achieving full and independent lives. At the end of the camp session, parents receive a portfolio filled with their child's work routine and accomplishments. Included are pictures of their child at work, a chart of wages earned, and reports on strategies that worked well for keeping him or her on track.

"The portfolio is amazing," Martin says with pride. "I feel like I have a tool. I feel like I have something that I can take to the school and say, 'Look at this. This is what my child can do and here is how to encourage him.' It also helped me to see that I have had a tendency to baby Terrell a little. I guess I tend to overcompensate for his disability sometimes, but I have learned a lot. I see what he can do, and I understand that it is beneficial for me to encourage him to take some responsibility. That's what a parent does."

Terrell's mom has been actively incorporating some of Terrell's camp routine into his routine at home. She searched the internet for a sweeper just like the sweeper Terrell learned to use in camp. She also is taking the portfolio to Terrell's next Individualized Education Program (IEP) meeting to implement some of the things Terrell is able to do.

"Now, with Terrell turning 18, I feel like I have more information about what I need to be doing for and with him. The camp had not just my child in mind, but my entire family. That is important because all of us have to work together for the common good of kids with special needs." ●

Spotlight

Feeling a Connection

MADGE BASS

By Traci Fleischman

Madge Bass has an immediate and heartfelt connection to the Vanderbilt Kennedy Center. Her oldest son, Warner Jr., was born with a developmental disability 40 years ago. "I didn't have the Kennedy Center in my life and there were many unanswered questions," explained Bass.

Bass enrolled Warner Jr. in Westminster School of Nashville and later into Riverview School in East Sandwich, Massachusetts, an independent, nonprofit, residential, secondary and postsecondary school that provides remedial and compensatory programming for students with special learning needs.

The Westminster School was tailored to teach children and their parents to understand that developmental disabilities stem from differences in brain functioning and that every child is different.

Each child had an individual educational plan to guide learning and received tutoring to help promote educational and personal growth. The Westminster School of Nashville moved to Williamson County in August 2002 and became Currey Ingram Academy.



Madge Bass and son Warner Bass, Jr.

"Fortunately, today, the Vanderbilt Kennedy Family Outreach Center is a great source for families who are concerned about a child's development," stated Bass. "Resources are now readily available at the Center for individuals with developmental disabilities, and the Center's research holds a prominent place in the world of science, as well as in the world of disability advocates," she continued.

Bass has been a part of the Center's Leadership Council for 6 years. "I was honored to be a

member once I realized what the Kennedy Center was accomplishing."

She has been a past co-chair for the annual Leadership Dinner and is on the Board Development and Orientation Committee of the Leadership Council. With her husband Warner, Bass has four children and four grandchildren.

To Bass, the Vanderbilt Kennedy Center stands for three primary objectives: research, diagnosis, and treatment. "I have certainly benefited from the various lectures and the information in the *Discovery* newsletters—which are great resources that anyone can take advantage of. The Kennedy Center is regarded as one of the top research centers for brain function in the country, and I am proud to be a part of that," explained Bass.

The Kennedy Center has so many positive aspects, but Bass feels that the biggest asset of the Center is helping the layperson understand the brain. "The Center's research is breaking through the mystery of mental disorders."

In addition to being part of the Vanderbilt Kennedy Center's community ambassadors, Bass also is active in the Nashville community. She is a sustaining member of the Junior League of Nashville, a member of the International Study Club, a member of the Garden Club of Nashville, and a volunteer for various other organizations.

"It is my hope," Bass said, "that the Nashville community as a whole could become aware of the extraordinary accomplishments achieved at the Vanderbilt Kennedy Center." ●

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The Nicholas Hobbs Society is made up of donors who give \$1,000 or more annually to the Center or one of its programs. Through their gifts, Hobbs Society members advance groundbreaking research in human development. A list of Hobbs Society members is found at kc.vanderbilt.edu/giving/give2hobbs.html.

For information about joining the Nicholas Hobbs Society or making Honor or Memorial gifts, contact (615) 343-5322. ●

A Greater Gift

By Traci Fleischman

Thanks to the generous gifts of several individuals and families, the Vanderbilt Kennedy Center's programs are able to thrive in many different ways.

Carell Gift Helps Families

Mr. and Mrs. Monroe Carell, Jr. have made a gift to the Parent Support and Education Program (PSEP) that will enable autism specialists to help more families of young children with autism. PSEP is a new program of the Vanderbilt Kennedy Treatment and Research Institute for Autism Spectrum Disorders, known as TRIAD.

Over three intensive clinic sessions, autism specialists provide information, support, and consultation for parents of children under 4-years-old who have a diagnosis on the autism spectrum or are suspected of being on the spectrum.

"PSEP was developed because there is such a long wait to get a diagnostic evaluation for autism in our community, as well as the rest of the country," explained Sarah Coffey, TRIAD autism consultant.

PSEP also serves the scientific community by gathering information for research on best practices.



Monroe Carell, Jr. at the Vanderbilt Kennedy Center Fall Leadership Council Meeting

The Carell family name is virtually synonymous with caring about children. Carell and his wife Ann provided the lead gift and led the successful fundraising efforts that helped build the new Monroe Carell Jr. Children's Hospital at Vanderbilt, named in his honor to acknowledge his tireless efforts and generosity.

As a Vanderbilt University graduate, Carell has spent much of his time giving back to the Vanderbilt community. He currently chairs "Shape the Future," the most ambitious campaign in Vanderbilt's history, which will surpass its \$1.25 billion goal 2 years ahead of schedule this fall. He is a long-time member and past chair of the Children's Hospital board of directors and is a member of the Vanderbilt Board of Trust. The Carells also are passionate supporters of undergraduate scholarships at Vanderbilt and currently have eight scholars on campus.

Carell is Executive Chairman of Nashville-based Central Parking Corporation.

Frist Gift for Autism Services

Mr. and Mrs. William (Billy) R. Frist's donation is enabling TRIAD to provide essential clinical and education services for children with autism and their families and teachers.

TRIAD is dedicated to improving assessment and treatment services for children with autism spectrum disorders and their families while advancing knowledge and training. TRIAD's autism specialists provide services for families and professionals in areas such as behavior workshops, school-based services and teacher-training workshops, summer social skills camps, Enhancing Interactions classes for parents, and training in administering the Screening Tool for Autism in Two-Year-Olds (STAT).

Frist is a member of First Capital, LLC, a private investment firm based in Nashville.

TRIAD Appreciation

"Every day TRIAD staff talk with parents seeking answers and support, as well as with educators seeking training—from Tennessee and beyond," said Wendy Stone, Ph.D., TRIAD director. "Autism services have not been able to keep up with needs, and costs for services are barriers to many families. Children, families, and teachers need help today. On behalf of those we serve, TRIAD is incredibly grateful to Monroe Carell, Jr., to Billy Frist, and to the many other individuals who, through gifts large or small, help us help others."

Greenfield Gift Supports Down Syndrome Discovery

Mr. and Mrs. James Greenfield and family have set up the Greenfield Family Foundation in



Explorers Academic Camp for youth with Down syndrome incorporates research.

memory of their late son, Mark Greenfield, who had Down syndrome. They also have a son who is a junior at Vanderbilt. Their gift is supporting a Vanderbilt Kennedy Center Discovery Grant that will fund novel research in the field of Down syndrome.

"In today's climate of severe competition at the national level, we want to provide our investigators with an edge, said Pat Levitt, Ph.D., Vanderbilt Kennedy Center director. "This is why the Discovery Grants are so valuable to us. We are exceptionally pleased to have this gift to advance our initiatives in Down syndrome research."

Giving for the Future

Gifts make a difference in the future of individuals with disabilities, their families, and the researchers whose careers are devoted to the discoveries that will improve lives. The Center's strategic plan identifies several philanthropic needs, among them:

- Endowed Chairs for senior researchers
- Endowment for major research programs
- Discovery Grants to fund novel research
- Scholarships to support clinical programs

Individuals and families, foundations and corporations all provide critical support for research and outreach programs. Gifts may be made in the form of cash, credit card charges, appreciated property, or stock. The matching gift program of an employer is an excellent way to increase the impact of an individual gift. Planned giving possibilities include bequests, trusts, and insurance options. For information on giving, contact (615) 322-8233. ●



PHOTOS COURTESY OF TRIAD

The gift of Mr. and Mrs. Monroe Carell, Jr. will enable the TRIAD Parent Support and Education Program to help more families with young children with autism.

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Vanderbilt Kennedy Center Leadership Dinner
"From Dinner to Discovery!"

Loews Vanderbilt Hotel
6:30-9 p.m.

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Proceeds support Discovery Grants

Tickets available for purchase \$150/person for non-Hobbs Society members

Contact kc@vanderbilt.edu
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Discovery is a quarterly publication of the Vanderbilt Kennedy Center designed to educate our friends and the community, from Nashville to the nation. The Center is committed to improving the quality of life of persons with disabilities of thinking, learning, perception, communication, mood and emotion caused by disruption of typical development. The Center is a university-wide research, training, diagnosis, and treatment institute. It is a national Developmental Disabilities Research Center funded by the National Institute of Child Health and Human Development, and a University Center for Excellence in Developmental Disabilities (UCEDD) funded by the Administration on Developmental Disabilities.

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Discovery

Editor/Writer: Jan Rosemergy, Ph.D.
Assistant Editors/Writers: Courtney Evans, Traci Fleischman
Art Director: Melanie Bridges, B.F.A.

Discovery is supported in part by Grant No. HD 15052 from NICHD.

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Vanderbilt University
Vanderbilt Kennedy Center
Peabody Box 40
230 Appleton Place
Nashville, TN 37203
Return Service Requested



Vanderbilt Kennedy Center for Research on Human Development

Calendar of Events

Unless otherwise noted, events are free and open to the public. Events are subject to change. Please check the calendar on our website kc.vanderbilt.edu or contact (615) 322-8240 or toll-free (1-866) 936-VUKC [8852]. For disability-related training and other events statewide and nationally see Pathfinder Disability Calendar www.familypathfinder.org.

November

NOVEMBER 1**Developmental Disabilities Grand Rounds
Imaging Brain Connectivity in Williams
Syndrome, Learning Disabilities, and
Schizophrenia**

Adam Anderson, Ph.D., Associate Professor of
Biomedical Engineering and Radiology &
Radiological Sciences

Co-Sponsor Center for Child Development

Light breakfast provided

Wednesday 8 a.m., Room 241

Vanderbilt Kennedy Center/MRL Building

NOVEMBER 11**2nd Annual Holidays Around the World
Benefiting Susan Gray School**

Saturday

5-6:30 p.m. Susan Gray School

6:30-9 p.m. Cohen Fine Arts Building

Peabody Campus

For tickets contact (615) 322-8200

or buy at door

NOVEMBER 15**Vanderbilt Kennedy Center Leadership Dinner
From Dinner to Discovery!**

Honoring leadership volunteers and members
of the Nicholas Hobbs Donor Society

Proceeds support Discovery Grants

\$150/person for non-members;

contact (615) 343-5322

Wednesday 6:30 p.m.

Loews Vanderbilt Hotel

NOVEMBER 28**Vanderbilt Kennedy Research Ethics Program
When Things Go Wrong: Response in Research
and Service Settings to Suspected Child
Maltreatment**

Carol Rabideau, L.C.S.W., Social Worker,
Vanderbilt Kennedy Center for Excellence in
Developmental Disabilities

Patti van Eys, Ph.D., Assistant Clinical Professor
of Psychology

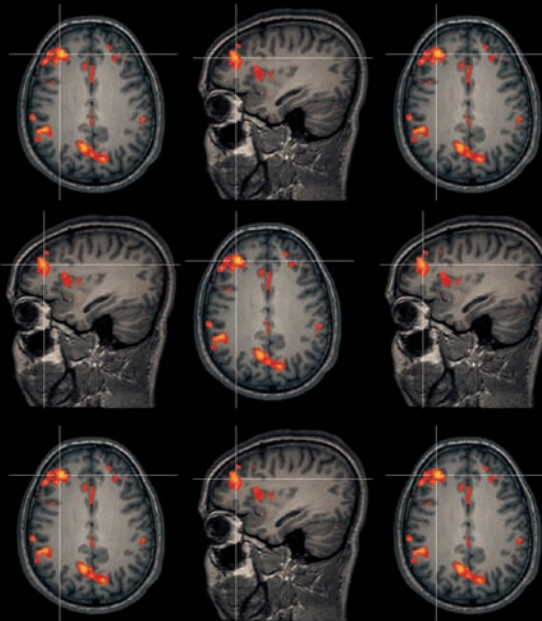
Lunch will be provided

Pre-register www.kc.vanderbilt.edu/pre-register

or contact (615) 322-8240

Tuesday 12 Noon, Room 241

Vanderbilt Kennedy Center/MRL Building



CALUM AVISON, VANDERBILT INSTITUTE OF IMAGING SCIENCE

Functional MRI brain activation maps such as these are being used by investigators at the Vanderbilt Kennedy Center and the Vanderbilt Institute of Imaging Science to study the long-term effects of fetal cocaine and alcohol exposure on brain function later in life.

NOVEMBER 29**Neuroscience Graduate Seminar Series
Construction and Plasticity of GABAergic
Circuits in the Mammalian Brain**

Z. Josh Huang, Ph.D., Associate Professor of
Neuroscience, Brandeis University

Co-Sponsor Vanderbilt Brain Institute

Wednesday 4:10 p.m.

Room 1220 MRB III Lecture Hall

December

DECEMBER 1**Community Advisory Council Meeting
University Center for Excellence**

Friday 9 a.m.-1 p.m., Fireside Room

Peabody Education Library

Contact (615) 936-5118

DECEMBER 6**Developmental Disabilities Grand Rounds
Blindness, Brain Plasticity, and Spatial
Orientation**

John Rieser, Ph.D., Professor of Psychology

Co-Sponsor Center for Child Development

Light breakfast provided

Wednesday 8 a.m., Room 241

Vanderbilt Kennedy Center/MRL Building

DECEMBER 7-8**Conference on Critical Issues for Siblings of
Individuals with Disabilities: Setting a National
Research and Policy Agenda**

Co-sponsors National Sibling Research

Consortium and The Arc U.S.

Thursday-Friday, Room 241

Vanderbilt Kennedy Center/MRL Building

Pre-register www.kc.vanderbilt.edu/pre-register

or contact (615) 322-8240

DECEMBER 13**Neuroscience Graduate Seminar Series
Autism Genetics: Finding Genes in Spite of
Heterogeneity**

Daniel Geschwind, M.D., Ph.D., Assistant

Professor of Neurology; Principal Investigator,

The Gonda (Goldschmied) Neuroscience and

Genetics Research Center, University of

California-Los Angeles

Co-Sponsor Vanderbilt Brain Institute

Wednesday 4:10 p.m.

Room 1220 MRB III Lecture Hall

January

JANUARY 10**Developmental Disabilities Grand Rounds
Synaptic Mechanisms in Anxiety and Addiction**

Danny Winder, Ph.D., Associate Professor of
Molecular Physiology & Biophysics

Co-Sponsor Center for Child Development

Light breakfast provided

Wednesday 8 a.m., Room 241

Vanderbilt Kennedy Center/MRL Building

JANUARY 15**Martin Luther King Jr. Commemorative Lecture
Lectures on Development and Developmental
Disabilities**

**Acts of Conscience: World War II Conscientious
Objectors and Institutional Exposés**

Steven Taylor, Ph.D., Co-Director, Center on

Human Policy, Law and Disability Studies

Professor, Syracuse University, School of

Education

Monday 4:10 p.m., Room 241

Vanderbilt Kennedy Center/MRL Building



Vanderbilt Kennedy Center for Research on Human Development

February

FEBRUARY 7

Developmental Disabilities Grand Rounds School-Based Positive Behavior Supports: Identifying and Supporting Students Who Require Secondary Prevention Efforts

Kathleen Lane, Ph.D., Assistant Professor of Special Education

Co-Sponsor Center for Child Development

Light breakfast provided

Wednesday 8 a.m., Room 241

Vanderbilt Kennedy Center/MRL Building

FEBRUARY 7

Neuroscience Graduate Seminar Series Development of the Intestinal Innervation: Translational Implications

Michael D. Gershon, M.D., Ph.D., Professor and Chairman, Anatomy & Cell Biology, Columbia University

Co-Sponsor Vanderbilt Brain Institute

Wednesday 4:10 p.m.

Room 1220 MRB III Lecture Hall

FEBRUARY 12

Lectures on Development and Developmental Disabilities

Accounting for the Uneven Linguistic Profiles Seen in Children with Specific Language Impairment

Larry Leonard, Ph.D., Rachel E. Stark

Distinguished Professor of Speech-Language Pathology, Purdue University

Monday 4:10 p.m., Room 241

Vanderbilt Kennedy Center/MRL Building

FEBRUARY 28

Neuroscience Graduate Seminar Series Regulating Fragile X Expression: Gene, Protein, and Axons

Justin Fallon, Ph.D., Professor of Neuroscience, Brown University

Co-Sponsor Vanderbilt Brain Institute

Wednesday 4:10 p.m.

Room 1220 MRB III Lecture Hall

March

MARCH 14

Developmental Disabilities Grand Rounds The Quest for a Cognitive Neuroscience of Schizophrenia: The Case of Working Memory and Prefrontal Cortex

Sohee Park, Ph.D., Associate Professor of Psychology

Co-Sponsor Center for Child Development

Light breakfast provided

Wednesday 8 a.m., Room 241

Vanderbilt Kennedy Center/MRL Building



MATTHEW DRUMWRIGHT

Callily Stem Spot, exhibited in Creative Expressions XII

MARCH 22-23

Vanderbilt Brainstorm Special Lecture Lectures on Development and Developmental Disabilities

Why Zebras Don't Get Ulcers: Stress, Disease and Coping (Thursday)

Stress and Where Stress-Related Diseases Come From (Friday)

Robert Sapolsky, Ph.D., Professor of Biological Sciences, Neurology & Neurological Sciences, and Neurosurgery, Stanford University

Co-Sponsor Vanderbilt Brain Institute

Thursday lecture, 4 p.m.; Friday lecture, 9 a.m.

Room 103 Wilson Hall

Sibshops

A Vanderbilt Kennedy Center for Excellence in Developmental Disabilities program for siblings of children with special needs, ages 6-12 years. Games, friends, discussion.

Advance registration required

Contact (615) 936-5118

Saturdays, Spring dates to be announced

Vanderbilt Kennedy Center/MRL Building

Arts & Disabilities

Vanderbilt Kennedy Center Exhibits

Monday-Friday 7:30 a.m.-5:30 p.m., Lobby

Vanderbilt Kennedy Center/MRL Building

October 23, 2006- January 31, 2007

Creative Expressions XII

Co-sponsor Mayor's Advisory Committee for People with Disabilities

Art also exhibited at Tennessee Performing Arts Center

Mayor's Advisory Committee 25th Awards Celebration

Thursday, November 30, 5:30-7 p.m.

Adventure Science Center

ASMT Events

Autism Society of Middle Tennessee

www.autismmid Tenn.org

ASMT event information (615) 385-2077

Registration is requested for all events

ASMT members free; nonmembers \$5/family

NOVEMBER 9

Autism Education Series

Genes and Autism: What Do We Know?

Presentation by researchers from Vanderbilt

Center for Human Genetics and Vanderbilt

Kennedy Center

Thursday 6:30-8:30 p.m., Room 241

Vanderbilt Kennedy Center/MRL Building

NOVEMBER 16, JANUARY 18, MARCH 15

Autism Orientation

Registration required. Child care available upon request.

Thursdays 6:30-8:30 p.m., Room 241

Vanderbilt Kennedy Center/MRL Building

DSAMT Events

Down Syndrome Association of Middle Tennessee

www.dsamt.org

DSAMT event information (615) 386-9002

Take Part in Research

Children and adults, with and without disabilities, are invited to take part in research.

See kc.vanderbilt.edu/studyfinder

Contact Lynnette Henderson (615) 936-0448;

toll-free (1-866) 936-VUKC [8852]

Disability Pathfinder

Phone, web, print resources

www.familypathfinder.org

English (615) 322-8529, (1-800) 640-INFO

[4636]

Español (615) 400-4422, (615) 322-7830

Disability Calendar

Internet calendar of training and other disability-related events

kc.vanderbilt.edu/tnpathfinder/calendar.html