



# ImPrints



## “Image is Everything” In New Faculty’s Brain Research

**Ask** Dr. Moriah Thomason to talk about her work and she lights up like the colorful brain scans dotting her computer monitor. “I get passionate about what I do,” she says with a smile. “I can’t help it.”

Dr. Thomason joined Wayne State University from Stanford University in March as an assistant professor jointly appointed at MPSI and the Department of Pediatrics at the School of Medicine. She doesn’t like to waste time, so back in October, months before crossing the border into Michigan, she teamed with new WSU colleagues to submit a grant proposal to the NIH on neural and genetic contributions to pediatric anxiety disorder. “I wanted to hit the ground running,” she says. The proposal garnered positive feedback but fell just short of a fundable score. An undaunted Dr. Thomason shrugs her shoulders. “So we revise and re-submit. That’s how these things work.”

It’s hard not to like an award-winning doctor of neuroscience, with an impeccable research track record at MIT, UCLA and Stanford, who refers to her new projects at WSU

as “fun and scientifically worthwhile.” She describes complex cognitive research with the enthusiasm of a New World explorer, which is appropriate since many consider the brain the final frontier. Put simply, Dr. Thomason studies how children develop inside and out, the ties between social behavior and the brain’s chemistry, function and structure. How does the brain of a 13-year-old with anxiety disorder differ from the brain of 13-year-old who rarely feels anxious? Do changes in brain chemistry alter brain structure? Does altered brain structure predict emotional changes?

For more than a decade, she has collected brain scans of children, accumulating a priceless database of brain development over time. “Imaging technology continues to improve,” she explains, “so it’s important

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AWARDS & HONORS

MPSI Deputy Director **John Hannigan, Ph.D.**, was invited to train the trainers at the Fetal Alcohol Spectrum Disorders (FASD) Clinical Certificate Program in Wisconsin this March. He discussed maternal alcohol screening and the use of the American College of Obstetrics and Gynecology toolkit to prevent FASD.

MPSI graduate trainee **Sarah Shair** and affiliate faculty member **Chris Trentacosta** received travel awards to present at the Society for Research in Child Development meeting in Montreal at the Biennial Conference.

The journal *Child Maltreatment* appointed MPSI assistant professor **Valerie Simon, Ph.D.**, to their editorial board in January. This winter, Dr. Simon was also named a National Science Foundation reviewer and a member of the advisory board of Detroit's Child Advocacy Center. For several years, Dr. Simon has been committed personally and professionally to strengthening child advocacy. In early 2011 Wayne County honored Dr. Simon with a Recognition

Plaque for her outstanding service to its Child Advocacy Task Force.

MPSI graduate student **Jana Ranson** won Honorable Mention from the prestigious National Science Foundation Graduate Research Fellowship Program for her proposal *Security Priming Attenuates Deleterious Attachment-Modulated Stress Responses*.



Former MPSI pre-doctoral trainee, **Golfo Tzilos**, won First Prize from Brown University's Department of Psychiatry and Human Behavior Research Symposium on Mental Health Science for her research poster entitled *A Randomized Phase I Trial of a Brief Computer-Delivered Intervention for Alcohol Use during Pregnancy*. Golfo trained at MPSI in 2009 under the mentorship of Dr. Steven Ondersma who is a co-author of the poster. She is now a postdoctoral fellow at Brown's Center for Alcohol & Addiction Studies.

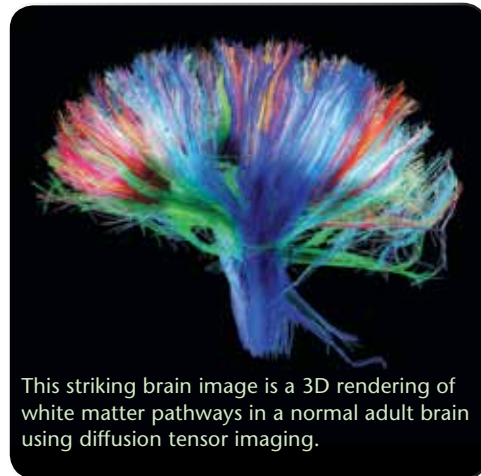


Image from p.1

to save these images so they can be looked at anew." One emergent development in imaging science is analysis of temporal dynamics, a technique that captures the relationship between areas of the brain as they change over time. "Static to dynamic," she says. "Very technically and conceptually complex."

Dr. Thomason is well-versed in all types of brain imaging, but she may be best known for her resting state MRIs, a newer technology that literally makes something out of nothing. While functional MRI requires subjects to perform a task in order to chart brain activity, resting state MRI is simply that: the brain at rest. Subjects do nothing, just relax without falling asleep. Resting state allows researchers to scan the brains of infants, even fetuses.

So it is no surprise that one of Dr. Thomason's new projects is helping the Perinatology Research Branch, a division of the National Institute of Child Health and Human Development, conduct large-scale fetal imaging to study brain connectivity networks *in utero*. "With resting state MRIs, we can map neural networks, determine normal versus at-risk development and find prognostic markers over time," she explains. One day diagnosis and treatment could occur



This striking brain image is a 3D rendering of white matter pathways in a normal adult brain using diffusion tensor imaging.

before symptoms appear. "This is an amazing opportunity to make a large difference in a lot of lives."

Childhood stress and anxiety is another research focus for Dr. Thomason, for which she received a National Research Service Award NIH Fellowship. Her 2010 article "Neural and behavioral responses to threatening emotion faces in children as a function of the short allele of the serotonin transporter gene" compares the brains of children with and without a gene variation that decreases serotonin. Serotonin helps to modulate emotion and produce a sense of calm, so children with low levels of serotonin feel more fear and anxiety. Neural networks were clearly altered by the gene variation that causes less serotonin to circulate,

changes that may predispose these children to react more fearfully to what they see. Genetics alters brain structure, which changes behavior. The foundation for chronic anxiety might be laid at conception.

Dr. Thomason says her decision to leave Stanford for WSU was simple and she is "very, very happy" she made it. She praises Wayne as a uniquely collegial and supportive research environment. Its camaraderie, teamwork and open access to research populations are unrivalled in her experience at the elite universities of MIT, UCLA, Berkeley, and Stanford. "Wayne is invested, interested and dedicated to my being successful," she says. "And it has a deep interest in helping others, especially Detroit. Teamwork and service are important to me. They move the science forward more quickly."

The legacy Dr. Thomason hopes to build includes extensive mentoring of junior faculty, changing the way at-risk pregnancies are diagnosed and treated, significantly improving the lives of many people, and playing a pivotal role in the university. As a teen in Arizona, she helped her parents build their successful Princeton Review franchise by visiting colleges across the state to proctor exams, her first introduction to the academic life. "I started working on university campuses early," she says with a laugh, "and I doubt I will ever be leaving."

Growth Spurt Doubles Impact of Healthier Urban Families

Demand for trainings through MPSI's Healthier Urban Families program soared this past year as parents, grandparents and professionals requested quality programs for their organizations. "The need has always been there," says Beverly Weathington, M.S.W., HUF's program coordinator. "Calls to us have soared lately, because of our reputation for meaningful seminars on topics of importance to our audience. The information we provide makes a difference."

Before creating a presentation, Bev pinpoints the organization's purpose and strengths. "I respect these groups and the difficulties they face. I'm not there to criticize. I'm there to focus

on what's right and strengthen it."

HUF trained 997 teachers, paraprofessionals, social workers, and classroom aides this year, more than double the 418 trained last year. Parent trainings have risen, too, and trainings to help grandparents raising grandchildren have doubled to 209. A popu-

To host a Healthier Urban Families seminar, contact Bev Weathington at 313-872-1411 or ac8787@wayne.edu. Professional development seminars and registration information are listed at www.mpsi.wayne.edu/outreach/urban-families.php. HUF also provides youth trainings to students from kindergarten through 12th grade.



Parents enjoy crafting as they learn the value of play. Free massages were provided at a stress reduction workshop.

"Even when the situation and the subject is serious, we make it interesting."



lar parent topic is *Recession Proof Parenting*, with ideas like Family Film Festival where members take turns picking the movie, choosing and preparing the snack, and leading a follow-on discussion. "Everyone gets to showcase their film," Bev says. *Stress Management* ranks high for both parents and professionals. Other often-requested topics for professionals are *School and Cyberbullying* and *Home Visitor Safety* in which teachers and paraprofessionals learn situational awareness and self-protection as they make mandatory visits to families.

Interim House Domestic Violence Shelter held three trainings recently to help moms reduce stress and learn how to share joy and playfulness with their children. Each mom at the stress reduction workshop received a free massage. While all expressed thanks, one woman was moved to put her gratitude into writing:

Hello Ms. Weathington,

First I wanted to thank you for taking time to provide the workshop yesterday. The information shared in this workshop, just like the previous one, was informative and things that I can actually apply to my own life.

It was not only a treat but a blessing to my soul to receive a massage yesterday as well. Thank you so very much for providing that wonderful experience. I felt special and refreshed.

Thanks again,  
Name Withheld

"Even when the situation and the subject is serious, we make it interesting," Bev explains. "The majority of our evaluations say the information is meaningful, useful and that they had fun."





# Freer House Pulses with Music, Art and Drama

- by William Colburn  
*Director, Freer House Project*

Art, music and song filled the Exhibition Gallery (also known as Hoobler Lounge) of Charles Lang Freer's historic home as friends gathered in support of plans to restore the adjacent former Whistler Gallery. A consummate art collector, Freer built his first private gallery in a major addition to his home in 1906, filling it with natural light and dozens of his prized Whistler paintings. Since the 1950s however, the gallery has suffered several alterations to convert it into office space, changes that negatively affected its historic design and character. At one time, it was home to the Kresge Historical Library with dozens of book stacks lining the floor.

The Friends of the Freer House and MPSI have launched a fund-raising campaign to restore this room to its original design. The cubicle offices and drop ceilings would be removed and the room returned to its open plan as a space for meetings, conferences and exhibits. The Friends announced this exciting project with the March benefit,



Clockwise from bottom left: Students from the WSU Theater Department, Alexandre Bleau (l) and George Abud, read letters between Freer and Whistler. The talented Scarab Club Music Ensemble sets the mood for the restoration benefit. Chris Felcyn (l), host of Detroit Public Television's WRCT FM joins new Friends of the Freer House member Louise Papista and her guest Thea Kavadas (seated). WSU Interior Design students appreciate the restoration's challenges.



drawing a capacity crowd for a creative multi-sensory immersion into Freer's life and the former glory of the Whistler Gallery.

*Whistler and Freer through Art, Music and*

*Letters* highlighted the remarkable friendship between these two men and the priceless Whistler works that Freer once displayed in his gallery. Guests viewed projected images of select paintings from Freer's collection,

while Detroit's Scarab Club Ensemble played music carefully selected to accompany each work of art. Special guest tenor Damien Top from Paris sang. Personal letters between Freer and Whistler were dramatized by two talented actors from the WSU Theater Department. The blending of art, music and theater won rave reviews from the rapt audience and raised more than \$2,000 toward the cost of a professional plan needed to guide future restoration and fund-raising.

2011



Whistler Gallery as it currently exists as office space divided into small rooms and cubicles.

1906



Whistler Gallery circa 1906 with original art hanging.

*If you would like to donate to this important project, please make out your check to FOFH/WSU and mail to Rose Foster, Freer House Restoration, 71 E. Ferry Street, Detroit, MI 48202. We appreciate all levels of support. To learn about other ways to donate or to be notified about future Friends of the Freer House events, please email Rose at [rmfoster@wayne.edu](mailto:rmfoster@wayne.edu).*



Happy to lend a hand; MPSI faculty members show their support of Detroit's new Child Advocacy Center at a special open house this winter. Left to right: MPSI Director Peter Lichtenberg, Shawna Lee, Jessica Beatty, Vice President of Research Hilary Ratner (holding a special thank you), Stella Resko, Valerie Simon, Steve Ondersma and Ann Stacks.

## Helping Children Find Their Voice

MPSI welcomed a new neighbor to Ferry Street with the arrival of the Kids-TALK Child Advocacy Center in February. Kids-TALK is a child-friendly environment where children in suspected cases of sexual abuse can be interviewed by highly-trained, experienced and caring professionals. The center also offers trauma-focused treatment at no cost to these children. Dr. Valerie Simon, a MPSI faculty member, belonged to the Wayne County Task Force that spearheaded the expansion of the

center and its new location in Detroit. In January she received special recognition from Wayne County for her outstanding service to the task force.

Dr. Simon is partnering with Kids-TALK on two lines of research: one that seeks to understand the emergence of sexual risk behavior in adolescent girls with histories of child sexual abuse, and another that seeks to enhance the use of mental health services by youth and families attending the center.

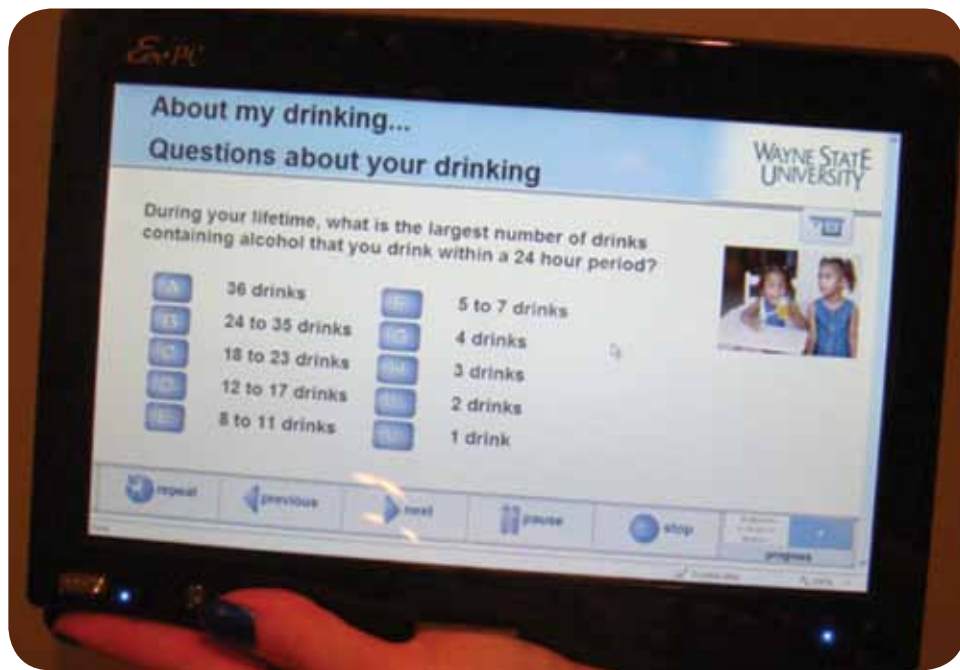


# Treatment for Alcohol Abuse at the Tips of Your Fingers

Pregnant women who drink alcohol risk the health and development of their babies, but identifying these mothers and motivating them to change has been a major health-care challenge. MPSI faculty member Dr. Steven Ondersma is taking a new approach to the problem, using handheld devices and tablet PC's (small, touch-screen computers) to change behavior. He won a \$655,500 grant this April to pilot the clinical trial of a computerized intervention to help pregnant women decrease their alcohol use. "Technology is going to be huge in facilitating interventions that can really have an impact on the population," he said.

For several years, Dr. Ondersma has researched cost-effective and broad-based methods of decreasing or eliminating illegal drug use during and after pregnancy. Now he is testing similar computerized methods to reduce prenatal exposure to alcohol, particularly binge drinking. The three-year grant from the National Institute on Alcoholism and Alcohol Abuse will fund the development of intervention, procedure and measures, as well as a 50-person pilot clinical trial. If all goes as planned, data from the pilot program will inform a larger clinical trial of 200 to 500 women. Dr. Ondersma prefers computerized interventions because they are "replicable in the community, highly personalized, and relatively inexpensive."

Dr. Ondersma's research hinges on the SBIRT approach to change behavior while using computer technology as the delivery method. SBIRT stands for screening, brief intervention, and referral for treatment



*"Rather than reaching only the few people who attend treatment for alcohol abuse, we can access large portions of at-risk women ..."*

– Dr. Steven Ondersma

and – unlike traditional rehab, therapy and support group sessions – is designed to impact behavior quickly, often after only one intervention. "Rather than reaching only the few people who attend treatment for alcohol abuse, we can access large portions of at-risk women who visit a prenatal clinic," he said. The study will:

1. Evaluate how hand-held devices such as the Android smart phone can be used to screen pregnant women for at-risk drinking.
2. Tailor existing motivational and intervention software to better serve this population.
3. Use current knowledge, and feedback from participants, to refine three follow-on messages tailored to individual character traits. The goal of these messages is to extend the impact of the original computerized intervention.

4. Evaluate the validity of Ethyl Glucuronide (EtG) as a urine test for alcohol use. EtG is highly sensitive and has been known to detect alcohol in persons who have merely inhaled the fumes of alcohol hand sanitizers, but also shows great promise as an objective measure of alcohol use.

Prenatal exposure to alcohol can have negative effects on cognition, socialization, and behavior and is a major cause of mental retardation. Because this damage can occur early in gestation, the computerized screenings and interventions will take place in the first trimester, with an EtG test of alcohol use at the time of delivery. Dr. Ondersma believes strongly in the value of brief, low-cost computerized interventions to slow or stop the effects of alcohol on the unborn child.

"Our goal is to motivate self-change in parents, and to have a meaningful impact on the health of large numbers of children," he said. "This approach allows us to do both."

# Wayne Graduate Thankful for Early Childhood Center

As a teen, Madelyn Tucker didn't think much about college. High school was hard enough; so hard she dropped out. Eventually she got her GED and took a run at college a few times but with no success. "I had a long checkered history of starting school and leaving," she says. "We moved. I got married. We had a son." Life offered plenty of solid reasons to give up.

Until she enrolled at Wayne State and discovered MPSI's Early Childhood Center in 2006. Her son Julius had just turned three. She and her husband were doing the childcare "shuffle" as she calls it. "Today is my day. Tomorrow is your day. This is the day to call mom," Madelyn says. Without dependable childcare, life was "chaotic. It's hard on parents and hard on the kids, but mainly hard on the kids."

Madelyn got an email explaining CCAMPIS and Wayne's on-site childcare centers and soon enrolled Julius at the Early Childcare



Lorelei speeds through a puzzle a mom Madelyn looks on.

Center – for free. CCAMPIS stands for Childcare Access Means Parents in School, a federal grant program that pays basic preschool tuition for children of low-income parents while they pursue college degrees. CCAMPIS requires at least half-time enrollment and a minimum grade point average of 2.0. Madelyn is full-time with a 3.9 GPA.

*"Once you have kids, you get a lot more serious about education."*

Julius thrived in the program, improving his social development and honing already excellent problem-solving skills. He's in first grade now where his teacher praises his helpfulness and good ideas. Daughter Lorelei, 3, started at the ECC in September. She "loves Miss Lisa, loves school and loves all her friends," Madelyn says. Madelyn has excelled in school, too. She graduates on May 5 with a bachelor's degree in environmental sciences and a minor in geology. "Can you believe it?" she laughs.

That's just the beginning. Madelyn won fellowships from both Wayne and the University of Michigan to pursue her master's degree in biology. She's chosen to stay at Wayne for now, but she'll have to go elsewhere for the doctorate she plans to earn. "I want to teach and research, hopefully at a university," says the woman who once couldn't stay in school. "Once you have kids, you get a lot more serious about education. I think about all the hours I spend away from them. I need to show something for it." In addition to discipline, Madelyn's success in the classroom required free, high-quality childcare. "The CCAMPIS help meant a lot to our whole family. We tell everyone about it. It's been huge for us."

**CCAMPIS pays basic tuition but does not cover all the costs of an ECC education. A gap of about \$800 per child per year remains. We rely on the generosity of donors like you to help fill that gap and keep this important program alive. If you would like to help a CCAMPIS family attend our Early Childhood Center for free, please make a donation on the form below. Remember that for our Wayne State students and their young children,**

**College Begins at Preschool**

BE A SUPPORTER OF CHILDREN AND FAMILIES GIVE TO THE MERRILL PALMER SKILLMAN INSTITUTE

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**MAKE CHECK PAYABLE TO: WSU - MPSI** Check # \_\_\_\_\_

Designate to Early Childhood Center

**CREDIT:**  Visa  Mastercard Amount \_\_\_\_\_

Card# \_\_\_\_\_ Exp. Date \_\_\_\_\_

Signature \_\_\_\_\_

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c/o Fund Office  
5475 Woodward Avenue  
Detroit, MI 48202

PRINT 4/2011



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## SAVE THE DATE

### PROFESSIONAL DEVELOPMENT SERIES

All programs held from 9:00 am – 12:15 pm at 71 East Ferry Street, Detroit 48202

Registration fee: Professionals \$50; students \$15

Details and registration at <http://www.mpsi.wayne.edu/outreach/urban-families.php>

**Embracing Families and Honoring Differences** (3 CE, .3 SB-CEU)

Wednesday, May 25

**Child Sexual Abuse: Interviewing, Interventions and Research** (3 CE, SB-CEU pending)

Wednesday, June 22

**Explorations in Development Professional Conference** Oct. 14 -15

For social workers, nurses, educators, and therapists

8:30 am – 4:00 pm at WSU Oakland Center

Explore issues affecting infants, youth and families. Contact hours, CEs and SB-CEUs available.

Speakers and topics posted on [www.mpsi.wayne.edu](http://www.mpsi.wayne.edu) after June 1.

**CALL FOR VOLUNTEERS:** If you enjoy working with young teens and have spare time, please consider helping with this year's **Giant Step Teen Conference, "Inclusion, Harmony, Acceptance."** Giant Step takes place on Thursday, November 3, 8:30 am – 2 pm on Wayne State's campus. Volunteers needed for set-up, conference duties and with experience facilitating discussions. Please call LeShone Hall at 313-574-1960 or [canihelpu05@yahoo.com](mailto:canihelpu05@yahoo.com) for more information.

## FREE

Workshops Available  
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Raising Grandchildren



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CONTACT:

LISA FICKER at 313-872-7103 or  
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