



March 2011

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## Awareness Spotlight

- National Alcohol Awareness Month

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- The Society for Prevention Research (SPR) 19th Annual Meeting, "Prevention Scientists Promoting Global Health: Emerging Visions for Today and Tomorrow"
- American Psychiatric Association Annual Meeting 2011, "Transforming Mental Health Through Leadership, Discovery and Collaboration"
- National Association of Addiction Treatment Providers Leadership Conference
- The Society for Prevention Research (SPR) 19th Annual Meeting, "Prevention Scientists Promoting Global Health: Emerging Visions for Today and Tomorrow"
- American Association on Intellectual and Developmental Disabilities Annual Meeting, 135th Annual Meeting Inclusive Communities: Pathways to Realizing the Vision
- National Coalition for Homeless Veterans Annual Meeting
- Academy Health's Annual Research Policy Meeting
- 27th Annual National Rural Institute on Alcohol and Drug Abuse
- National Association of State Mental Health Program Directors Annual 2011 Meeting

- Association of Women's Health, Obstetric and Neonatal Nurses Annual Convention: "Promoting the Health of Women and Newborns"



## FASD CENTER NEWS

### **SAMHSA FASD Center Expert Panel Member Named Parent of the Year**

The Special Parent Information Network of Hawaii has chosen Ginny M. Wright as Parent of the Year. Mrs. Wright is co-chair of the Hawaii FASD Task Force and is a member of the SAMHSA FASD Center for Excellence American Indian/Alaska Native/Native Hawaiian Expert Panel.

Mrs. Wright, who was instrumental in having the Hawaii legislature authorize a State FASD Coordinator, works to raise awareness of the issues of FASD in Hawaii. She and her husband, Gene, have five adopted children. Their two youngest daughters, Michelle and Hannah, have an FASD and inspire Mrs. Wright's efforts.

Gene Wright will participate on a panel of fathers of children with FASD next month at the Building FASD State Systems Conference in Phoenix, Arizona.

### **FASD Center Learning Communities Support Successful Service Delivery, Program Sustainability**

To facilitate knowledge sharing among the people and organizations involved in its fetal alcohol spectrum disorders (FASD) prevention, diagnosis, and intervention programs, the Substance Abuse and Mental Health Services (SAMHSA) FASD Center for Excellence last year started "learning communities" in two key areas: FASD diagnostic issues and implementing programs within state systems.



The bimonthly teleconference meetings are low cost and designed to facilitate peer-to-peer sharing and guidance around information gleaned from the groups' respective diagnostic and implementation experiences resulting from their participation in the FASD initiative. In addition to sharing among the subcontractors, some of the meetings have an educational webinar format and feature experts who speak on FASD-related topics.

The groups are created by their common focus and interest, and the participants drive meeting intervals and topics. The learning communities have been well received by the subcontractors and have already generated strategies for improving processes and outcomes, as well as how to sustain the efforts begun through these federally funded initiatives.

The State Systems Learning Community (SSLC) facilitates learning and information sharing among the project directors and other key staff across the State funded initiatives, including FASD prevention and diagnosis and intervention projects. FASD Center staff work with this community to facilitate identification of key strategies for integrating programs and services within their State systems. The SSLC includes representatives from seven State agencies and the Navajo Nation who are responsible for the integration of programs into their State and Tribal health systems.

"We realized, early on, the opportunity before us for rich dialogue—in spite of a variety of different service settings and approaches," said Jill Hensley, program manager of the coordinating center at the FASD Center. "As soon as we started talking, we all understood that there are a lot of common goals."

During the first session, participants provided overviews of their implementation approaches. They learned that all of the subcontractors had started with a limited number of sites with plans to expand to statewide implementation over time (although one State began with a statewide approach). Along with the different program types, there also were differences in the:

- Overall number of targeted service delivery sites within each State
- Methods of selection of sites (geography, population, economics)
- Types of service settings (e.g. mental health or substance abuse programs, Women, Infants and Children (WIC), Healthy Start, etc.)
- Process for expansion over time

However, the differences proved to be instructional, offering participants the opportunity to capitalize on one another's ideas and experiences.

During the second learning community call, held in December 2010, the group discussed modifications to their original expansion plans and reasons for reevaluating and revising those plans. Almost across the board, the representatives had learned that their plans for expanding the programs to more sites were too aggressive.

“Illinois originally planned to integrate Screening and Brief Intervention (SBI) into its 100 WIC program sites during the four-year subcontract,” said Debrah Lewis-Muhammad, FASD Center technical liaison. “But after the first year, representatives realized they would need to change or modify State policies and procedures and likely modify their data-collection process, so they revised their plan.”

By this time, the subcontractors had observed and shared that knowledge of FASD is minimal in the general population and among most health care professionals. They agreed that they needed to be proactive about continuing education, training, and technical assistance for health care professionals at their sites in order to maintain the awareness and knowledge needed to sustain the initiative.

Finally, in the first call of 2011, they discussed the critical connection between data collection, reporting integrity, and sustainability. Many learning community members reported data collection and integrity as challenging, due to factors including the distance between the State agency and some local sites or inadequate training on data collection and systems. State budget constraints are an ongoing challenge to staffing, sometimes hindering the subcontractors’ ability to dedicate staff to data collection—which would enable delivery of high-quality and timely data.

Learning community dialogues have led the FASD Center to make changes in data collection processes and provide additional training and technical assistance at some sites. Data have verified increases in the number of women screened for alcohol-exposed pregnancy (AEP) as well as increases in the number of women who screen positive for AEP (*See FASD Center Monthly Update – December 2010*). As the subcontractors enter their final grant year, they know that accurate data are invaluable for increasing program effectiveness, positive outcomes, and sustaining implementation beyond the grant cycle.

The scope and focus of FASD Center learning communities continues to evolve, based on issues discovered through the existing groups’ discussions. For instance, this month, FASD Center staff initiated a new learning community, “FASD Prevention and Treatment: Addressing Race, Ethnicity, and Culture in Service Delivery.” This learning community developed in response to subcontract project directors’ feedback about how these factors impact effective implementation and integration of programs into existing systems. For more information on the FASD Center prevention interventions underway in these States, link to [FASD Center for Excellence - Assessment and Prevention Programs](#).

*Editor’s Note: Read future issues of the Monthly Update for reports on the work of other SAMHSA FASD Center learning communities. Currently under formation: Service-to-Science Learning Community and Youth Residential Treatment Center Learning Community.*



## FASD SCIENTIFIC ARTICLES

### Characteristics

**Neuropsychological Comparison of Children with Heavy Prenatal Alcohol Exposure and an IQ-Matched Comparison Group**, Vaurio L, Riley EP, Mattson SN.

- Neurobehavioral deficits
- IQ differences

An objective in current research on children with fetal alcohol spectrum disorders (FASD) is to determine neurobehavioral profiles to identify affected individuals. Deficits observed when children with FASD are compared to typically developing controls may be confounded by lower IQ scores in the subjects with FASD. To determine if prenatal alcohol exposure is associated with neurobehavioral deficits after controlling for IQ differences, multivariate analyses were conducted to compare alcohol-exposed (ALC) subjects to a comparison group closely matched on IQ (IQC). Group differences (ALC < IQC) were found on verbal learning and parent-rated behavior problems. Group differences were marginally significant (measures within the broad neuropsychological comparison) or not significant (visual attention, retention of verbal material) on the remaining comparisons. Therefore, some deficits (e.g., verbal learning and behavior problems) in children with heavy prenatal alcohol exposure cannot be explained by the lower FSIQ observed in the population. These areas of relative weakness could be useful in distinguishing children with FASD from other children with lowered IQ.

*Journal of the International Neuropsychological Society*  
February 25, 2011 [E-pub ahead of print]

### Characteristics

**What Does Diffusion Tensor Imaging Reveal About the Brain and Cognition in Fetal Alcohol Spectrum Disorders?**

Wozniak JR, Muetzel RL.

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- Diffusion Tensor Imaging
- White matter abnormalities
- Intervention

Over the past 5 years, Diffusion Tensor Imaging (DTI) has begun to provide new evidence about the effects of prenatal alcohol exposure on white matter development. DTI, which examines microstructural tissue integrity, is sensitive to more subtle white matter abnormalities than traditional volumetric MRI methods. Thus far, the available DTI data suggest that white matter microstructural abnormalities fall on a continuum of severity in Fetal Alcohol Spectrum Disorder (FASD). Abnormalities are prominent in the corpus callosum, but also evident in major anterior-posterior fiber bundles, corticospinal tracts, and cerebellum. These subtle abnormalities are correlated with neurocognitive deficits, especially in processing speed, non-verbal ability, and executive functioning. Future studies using larger samples, increasingly sophisticated DTI methods, and additional functional MRI connectivity measures will better characterize the full range of abnormalities in FASD. Ultimately, these measures may serve as indices of change in future longitudinal studies and in studies of interventions for FASD.

*Neuropsychology Review*  
February 25, 2011 [E-pub ahead of print]

### Characteristics

#### **Combined Transcriptome Analysis of Fetal Human and Mouse Cerebral Cortex Exposed to Alcohol**

Hashimoto-Torii K, Kawasaki YI, Kuhn A, Rakic P.

- Transcriptome analysis
- Human and mouse comparison
- Gene expression changes
- Brain disorders

Fetal exposure to environmental insults increases the susceptibility to late-onset neuropsychiatric disorders. Alcohol is listed as one of such prenatal environmental risk factors and known to exert devastating teratogenic effects on the developing brain, leading to complex neurological and psychiatric symptoms observed in fetal alcohol spectrum disorder (FASD). Here, we performed a coordinated transcriptome analysis of human and mouse fetal cerebral cortices exposed to ethanol *in vitro* and *in vivo*, respectively. Up- and down-regulated genes conserved in the human and mouse models and the biological annotation of their expression profiles included many genes/terms related to neural development, such as cell proliferation, neuronal migration and differentiation, providing a reliable connection between the two species. Our data indicate that use of the combined rodent and human model systems provides an effective strategy to reveal and analyze gene expression changes inflicted by various physical and chemical environmental exposures during prenatal development. It also can potentially provide insight into the pathogenesis of environmentally caused brain disorders in humans.

*Proceedings of the National Academy of Sciences USA*  
February 22, 2011 [E-pub ahead of print]

### Prevention

#### **Ethanol Influences on Bax Translocation, Mitochondrial Membrane Potential, and Reactive Oxygen Species Generation Are Modulated by Vitamin E and Brain-Derived Neurotrophic Factor**

Heaton MB, Paiva M, Siler-Marsiglio K.

- Apoptosis of developing neurons
- Vitamin E
- Brain-derived neurotrophic factor (BDNF)
- Potential to ameliorate ethanol neurotoxicity

This study investigated ethanol influences on intracellular events that predispose developing neurons toward apoptosis and the capacity of the antioxidant  $\alpha$ -tocopherol (vitamin E) and the neurotrophin brain-derived neurotrophic factor (BDNF) to modulate these effects. Assessments were made of the following: (i) ethanol-induced translocation of the pro-apoptotic Bax protein to the mitochondrial membrane, a key upstream event in the initiation of apoptotic cell death; (ii) disruption of the mitochondrial membrane potential (MMP) as a result of ethanol exposure, an important process in triggering the apoptotic cascade; and (iii) generation of damaging reactive oxygen species (ROS) as a function of ethanol exposure. Brief ethanol exposure in these preparations precipitated Bax translocation, but both vitamin E and BDNF reduced this effect to control levels. Ethanol treatment also resulted in a disturbance of the MMP, and this effect was blunted by the antioxidant and the neurotrophin. ROS generation was enhanced by a short ethanol exposure in these cells, but the production of these harmful free radicals was diminished to control levels by cotreatment with either vitamin E or BDNF. These results indicate that both antioxidants and neurotrophic factors have the potential to ameliorate ethanol neurotoxicity and suggest possible interventions that could be implemented in preventing or lessening the severity of the damaging effects of ethanol in the developing central nervous system seen in the fetal alcohol syndrome (FAS).

*Alcoholism: Clinical and Experimental Research*  
February 17, 2011; doi: 10.1111/j.1530-0277.2011.01445.x. [E-pub ahead of print]

### Characteristics

#### **Fetal Alcohol Spectrum Disorders—A Case-Control Study from India**

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Nayak R, Murthy P, Girimaji S, Navaneetham J.

- Comparison of prenatal alcohol exposed children to controls
- Neurobehavioral problems
- Malnutrition

Maternal alcohol abuse during pregnancy can lead to fetal neurotoxicity and fetal alcohol spectrum disorder (FASD). The study aimed to compare the clinical features and neurobehavioral profiles of children exposed to alcohol during pregnancy with controls. Children exposed to alcohol in utero (n = 26) and 27-years age- and sex-matched controls were compared on FAS facial features, minor physical anomalies (MPAs), anthropometric measures, behavioral problems and intellectual functioning. MPAs were more common in cases (p = 0.001). Among FAS facial features, only philtrum smoothness varied significantly between the groups (p = 0.001). Behavioral problems (on Childhood Behavior Check List) were more pronounced (p = 0.001) and intellectual functioning significantly poorer in cases (p = 0.001) compared to controls. Researchers concluded that children prenatally exposed to alcohol manifested several neurobehavioral problems compared to controls. Underlying malnutrition may have altered some of the clinical findings.

*Journal of Tropical Pediatrics*  
February 14, 2011 [E-pub ahead of print]

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### Prevention

#### **The Role of Oxidative Stress in Fetal Alcohol Spectrum Disorders**

Brocardo PS, Gil-Mohapel J, Christie BR.

- Dysregulation of intracellular pathways
- Oxidative stress
- Imbalance of intracellular redox state
- Antioxidants as treatment

The ingestion of alcohol/ethanol during pregnancy can result in abnormal fetal development in both humans and a variety of experimental animal models. Depending on the pattern of consumption, the dose, and the period of exposure to ethanol, a myriad of structural and functional deficits can be observed. These teratogenic effects are thought to result from the ethanol-induced dysregulation of a variety of intracellular pathways ultimately culminating in toxicity and cell death. For instance, ethanol exposure can lead to the generation of reactive oxygen species (ROS) and produce an imbalance in the intracellular redox state, leading to an overall increase in oxidative stress. This review provides an up-to-date summary on the effects of prenatal/neonatal ethanol exposure on the levels of oxidative stress in the central nervous system (CNS) of experimental models of fetal alcohol spectrum disorders (FASD). It also reviews the evidence for the use of antioxidants as potential therapeutic strategies for the treatment of some of the neuropathological deficits characteristic of both rodent models of FASD and children afflicted with these disorders. We conclude that an imbalance in the intracellular redox state contributes to the deficits seen in FASD and suggest that antioxidants are potential candidates for the development of novel therapeutic strategies for the treatment of these developmental disorders.

*Brain Research Reviews*  
February 9, 2011 [E-pub ahead of print]

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### Characteristics

#### **Inter-Hemispheric Functional Connectivity Disruption in Children with Prenatal Alcohol Exposure**

Wozniak JR, Mueller BA, Muetzel RL, Bell CJ, Hoecker HL, Nelson ML, Chang PN, Lim KO.

- Corpus callosum abnormalities
- Inter-hemispheric structural and functional connectivity
- Cognitive functioning

MRI studies, including recent diffusion tensor imaging (DTI) studies, have shown corpus callosum abnormalities in children prenatally exposed to alcohol, especially in the posterior regions. These abnormalities appear across the range of fetal alcohol spectrum disorders (FASD). Several studies have demonstrated cognitive correlates of callosal abnormalities in FASD including deficits in visual-motor skill, verbal learning, and executive functioning. The goal of this study was to determine whether inter-hemispheric structural connectivity abnormalities in FASD are associated with disrupted inter-hemispheric functional connectivity and disrupted cognition. Inter-hemispheric functional connectivity disturbances were observed in children with FASD relative to controls. The disruption was measured in medial parietal regions (para-central) that are connected by posterior callosal fiber projections. Microstructural abnormalities previously shown in these same posterior callosal regions, and the current study suggests a possible relationship between the two. These measures have clinical relevance as they are associated with cognitive functioning.

*Alcoholism: Clinical and Experimental Research*  
February 8, 2011; doi: 10.1111/j.1530-0277.2010.01415.x. [E-pub ahead of print]

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### Screening and Diagnostic

#### **Under-Reporting of Foetal Alcohol Spectrum Disorders: An Analysis of Hospital Episode Statistics**

Morleo M, Woolfall K, Dedman D, Mukherjee R, Bellis MA, Cook PA.

- Hospital admission data

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- Potential under-reporting of alcohol harm

Internationally, 0.97 per 1,000 live births are affected by foetal alcohol syndrome (FAS). However, prevalence intelligence has been limited in the UK, hindering the development of appropriate services. This analysis compares hospital admissions over time, between regions and with alcohol-related admissions for adult females to assess whether established patterns (such as the North experiencing elevated harms) can be identified. A retrospective analysis of hospital admissions data (April 2002 to March 2008) for foetal alcohol spectrum disorder (FASD)-related conditions: foetal alcohol syndrome (dysmorphic) (n = 457); foetus and newborn affected by maternal use of alcohol (n = 157); maternal care for (suspected) damage to foetus from alcohol (n = 285); and 322,161 women admitted due to alcohol-related conditions. Whilst the rate of admission for alcohol-related conditions in women aged 15-44 years increased significantly by 41 percent between 2002/03 and 2007/08 ( $p < 0.0001$ ), no such increases were seen in the numbers of FASD-related conditions (all  $p < 0.05$ ). Established regional rates of admission for alcohol-related conditions in women aged 15-44 years old were not associated with admission for FASD-related conditions.

It would be expected that the North West and North East regions, known to have higher levels of alcohol harm would have higher levels of FASD-related conditions. However, this was not reflected in the incidence of such conditions, suggesting under-reporting. With incomplete datasets, intelligence systems are severely limited, hampering efforts to develop targeted interventions. Improvements to intelligence systems, practitioner awareness, and screening are essential in tackling this.

BMC Pediatrics  
February 8, 2011; 8;11:14

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### Etiology

#### **A Drosophila Model for Fetal Alcohol Syndrome Disorders: Role for the Insulin Pathway**

McClure KD, French RL, Heberlein U.

- Drosophila as model
- Etiology of FAS

Prenatal exposure to ethanol in humans results in a wide range of developmental abnormalities, including growth deficiency, developmental delay, reduced brain size, permanent neurobehavioral abnormalities and fetal death. This study describes the use of *Drosophila melanogaster* as a model for exploring the effects of ethanol exposure on development and behavior. It shows that developmental ethanol exposure causes reduced viability, developmental delay and reduced adult body size. Flies reared on ethanol-containing food have smaller brains and imaginal discs, which is due to reduced cell division rather than increased apoptosis. Additionally, it showed that, as in mammals, flies reared on ethanol have altered responses to ethanol vapor exposure as adults, including increased locomotor activation, resistance to the sedating effects of the drug and reduced tolerance development upon repeated ethanol exposure. Results thus establish *Drosophila* as a useful model system to uncover the complex etiology of fetal alcohol syndrome.

*Disease Models & Mechanisms*  
February 8, 2011 [E-pub ahead of print]

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### Etiology

#### **Altered Adult Hippocampal Neuronal Maturation in a Rat Model of Fetal Alcohol Syndrome**

Gil-Mohapel J, Boehme F, Patten A, Cox A, Kainer L, Giles E, Brocardo PS, Christie BR.

- Central nervous system dysfunction
- Cell proliferation and survival
- New immature neuron production

Exposure to ethanol during pregnancy can be devastating to the developing nervous system, leading to significant central nervous system dysfunction. The hippocampus, one of the two brain regions where neurogenesis persists into adulthood, is particularly sensitive to the teratogenic effects of ethanol. This study tested a rat model of Fetal Alcohol Syndrome (FAS) with ethanol administered via gavage throughout all three trimester-equivalents. Subsequently, it assessed cell proliferation, as well as neuronal survival, and differentiation in the dentate gyrus of the hippocampus of adolescent (35 days-old), young adult (60 days-old) and adult (90 days-old) Sprague-Dawley rats. Using both extrinsic (bromodeoxyuridine) and intrinsic (Ki-67) markers, researchers observed no significant alterations in cell proliferation and survival in ethanol-exposed animals when compared with their pair-fed and ad libitum controls. However, they detected a significant increase in the number of new immature neurons in animals that were exposed to ethanol throughout all three trimester equivalents. This result might reflect a compensatory mechanism to counteract the deleterious effects of prenatal ethanol exposure or an ethanol-induced arrest of the neurogenic process at the early neuronal differentiation stages. Taken together these results indicate that exposure to ethanol during the period of brain development causes a long-lasting dysregulation of the neurogenic process, a mechanism that might contribute, at least in part, to the hippocampal deficits that have been reported in rodent models of FAS.

*Brain Research*  
February 5, 2011 [E-pub ahead of print]

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### Characteristics

#### **Memory and Brain Volume in Adults Prenatally Exposed to Alcohol**

Coles CD, Goldstein FC, Lynch ME, Chen X, Kable JA, Johnson KC, Hu X.

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- African-American young adults
- Physical effects of prenatal alcohol exposure
- Memory deficits
- Brain region volume

The impact of prenatal alcohol exposure on memory and brain development was investigated in 92 African-American, young adults who were first identified in the prenatal period. Three groups (Control, n=26; Alcohol-related Neurodevelopmental Disorder, n=36; and Dysmorphic, n=30) were imaged using structural MRI with brain volume calculated for multiple regions of interest. Memory was measured using the Verbal Selective Reminding Memory Test and its nonverbal counterpart, the Nonverbal Selective Reminding Memory Test, which each yielding measures of learning and recall. For both Verbal and Nonverbal Recall and Slope, linear trends were observed demonstrating a spectrum of deficits associated with prenatal alcohol exposure. Dysmorphic individuals performed significantly poorer than unexposed controls on 5 of 6 memory outcomes. Alcohol-exposed individuals demonstrated significantly lower total brain volume than controls, as well as lower volume in a number of specific regions including hippocampus. Mediation analyses indicated that memory performance associated with effects of prenatal alcohol exposure was mediated from dysmorphic severity through hippocampal volume, particularly right hippocampus. These results indicate that the association between the physical effects of prenatal alcohol exposure and deficits in memory are mediated by volumetric reduction in specific brain regions.

*Brain Cognition*  
February 2011;75(1):67-77.[E-pub Nov. 9, 2010]

### Characteristics

#### **Goal-directed Arm Movements in Children with Fetal Alcohol Syndrome: A Kinematic Approach**

Domellöf E, Fagard J, Jacquet AY, Rönqvist L.

- Motor control processes
- Arm and head movement tracking
- Neuromotor deficits
- 3D kinematic analysis

This pilot study explores whether three-dimensional (3D) kinematic analysis may generate increased knowledge of the effect of intrauterine alcohol exposure on motor control processes by detecting atypical upper-limb movement pattern specificity in children with FAS relative to typically developing (TD) children. Left and right arm and head movements during a sequential unimanual goal-directed precision task in a sample of children with FAS and in TD children were registered by an optoelectronic tracking system (ProReflex, Qualisys Inc.). Children with FAS demonstrated evidently poorer task performance compared with TD children. Additionally, analyses of arm movement kinematics revealed atypical spatio-temporal organization in the children with FAS. Children with FAS also showed atypically augmented and fast head movements during the task performance. Findings indicate neuromotor deficits and developmental delay in goal-directed arm movements because of prenatal alcohol exposure. It is suggested that 3D kinematic analysis is a valid technique for furthering the understanding of motor control processes in children with FAS/fetal alcohol spectrum disorders.

*European Journal of Neurology*  
February 2011;18(2):312-20. doi: 10.1111/j.1468-1331.2010.03142.x.



## FASD-RELATED LITERATURE

#### **Final Reports on Substance-Using Women with FASD Issued**, University of Victoria School of Social Work, February 21, 2011

The University of Victoria has published three final reports and a newsletter-style executive summary on their *Substance Using Women with FASD and FASD Prevention* project. The project involved researchers at the U of V School of Social Work, in partnership with the Vancouver Island Health Authority and several women's health and community organizations, including the Inter-Tribal Health Authority. The project ran from 2008-2011 and was funded by the Victoria Foundation's FASD Action Fund. Electronic versions of these three reports and the newsletter are available at <http://socialwork.uvic.ca/research/projects.htm>. To order printed copies of the reports, contact Deborah Rutman by e-mail, [drutman@uvic.ca](mailto:drutman@uvic.ca) or by phone, 250.721.8202.

#### **SAMHSA Sponsors text4baby™ Mobile Maternal Health Program**



The Substance Abuse and Mental Health Services Administration (SAMHSA) is supporting [text4baby](#), a free mobile information service designed to promote maternal and child health. An educational program of the National Healthy Mothers, Healthy Babies Coalition, text4baby provides pregnant women and new moms with information to help them care for their health. Women who sign up for the service will receive free SMS text messages each week (English or Spanish), timed to their due date or their baby's date of birth. Link to <http://www.text4baby.org/index.html> to read more or sign up for the program. A message on the hazards of drinking alcohol while pregnant will be among the text messages sent.

#### **Sleep Health Issues for Children with FASD: Clinical Considerations**, *International Journal of Pediatrics*, E-pub July 14, 2010

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This article describes the combined clinical experience of a multidisciplinary group of professionals on the sleep disturbances of children with fetal alcohol spectrum disorders (FASD) focusing on sleep hygiene interventions. Such practical and comprehensive information is not available in the literature. Severe, persistent sleep difficulties are frequently associated with this condition but few health professionals are familiar with both FASD and sleep disorders. The sleep promotion techniques used for typical children are less suitable for children with FASD who need individually designed interventions. The types, causes, and adverse effects of sleep disorders, the modification of environment, scheduling and preparation for sleep, and sleep health for their caregivers are discussed. Read the full text of the study at <http://www.ncbi.nlm.nih.gov/pmc/issues/184945>.



## FASD NEWS ARTICLES – GENERAL PRESS

### **U of M partners with Israeli University to Study FASD**, *Winnipeg Free Press*, February 28, 2011

Researchers at University of Manitoba and Hebrew University in Jerusalem are partners in a study of how FASD affects children. The province plans to allocate \$750,000 for the new FASD research partnership. Access the article at <http://www.winnipegfreepress.com/breakingnews/U-of-M-partners-with-Israeli-university-to-study-FASD-117075358.html>.

### **Psychology Professor Awarded Cattell Sabbatical Fellowship**, by Erin Zagursky, *William & Mary News and Events*, March 22, 2011

Dr. Pamela Hunt, a psychology professor at the College of William & Mary, has been awarded a highly competitive James McKeen Cattell Fund Fellowship. Beginning in July 2011, Hunt will use her one-year sabbatical to develop a zebrafish model of fetal alcohol spectrum disorders to better understand how prenatal alcohol exposure affects humans. The fellowship provides professors a supplemental sabbatical allowance, which allows them to extend their leave time and research efforts. Her story is available at <http://www.wm.edu/news/stories/2011/psychology-professor-awarded-cattell-sabbatical-fellowship-123.php>.



Dr. Pamela Hunt

### **Hospital too Busy to Accommodate Him, says Abernethy**, *Northern News Services*, February 18, 2011

A man with an FASD reportedly was denied a job at a hospital because they could not accommodate his disorder. The man requires minimal accommodation to do his job. Under the NWT Human Rights Act, an employer has the "duty to accommodate" unless the accommodation would cause undue hardship on the employer. To read more about this incident, link to [http://nnsi.com/northern-news-services/stories/papers/feb18\\_11fa.html](http://nnsi.com/northern-news-services/stories/papers/feb18_11fa.html).

### **Adoptions Could Require Testing for Fetal Alcohol Disorders**, *Unicameral Update*, February 18, 2011

Nebraska Senator Gwen Howard introduced LB 324, which proposes that wards of the State who are younger than 10 years old be evaluated for fetal alcohol spectrum disorders (FASD) upon filing for petition of adoption unless there is no indication of FASD. Supporters who testified in support of bill include Jessyca Vandercy, program director for Right Turn (38 percent of its families are parenting a child or children with an FASD), and Beth Conover, a genetic counselor and nurse practitioner. For more information, link to <http://update.legislature.ne.gov/?p=3471>.

### **Researchers Lauded For Indigenous Collaboration**, *ABC Radio*, February 17, 2011

An Australian medical research project was recognized for engaging and collaborating with Aboriginal communities. The researchers are focusing on FASD. Australia's Aboriginal and Torres Strait Islander Social Justice Commissioner, Mick Gooda, says the project is setting an example to the rest of Australia on how best to approach Indigenous affairs.

<http://www.radioaustralia.net.au/connectasia/stories/201102/s3141268.htm>

### **FASD Spending Announced**, *Portage Online*, February 11, 2011

Jim Rondeau, Minister of Health Living, Youth, and Seniors, announced the growth of the provincial budget for families affected by FASD to \$11.5 million. He reports that the government is taking a multifaceted approach in dealing with FASD.

*Editor's Note: the Web link to this article is no longer active.*

### **Professor Emma Whitelaw Recognized at International Meeting**, *My Sunshine Coast.com.au*, 2011

Professor Emma Whitelaw of the Queensland Institute of Medical Research (QIMR) was awarded the International Union of Biochemistry and Molecular Biology (IUBMB) Jubilee Medal during a scientific meeting in Miami. The Jubilee Medal honors exceptionally successful scientists in the field of biochemistry and molecular biology. Her laboratory has developed a model of fetal alcohol syndrome. Read more at

<http://www.mysunshinecoast.com.au/articles/article-display/professor-emma-whitelaw-recognised-at-international-meeting,20560>.

### **2012 Justification of Estimates for Appropriations Committees Substance Abuse and Mental Health Services Administration (SAMHSA FY 2012 Performance Budget)**, U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services, 2011

This is a link to the budget proposed by SAMHSA for fiscal year 2012. It focuses on the agency's strategic initiatives and improving the Nation's behavioral health. The budget totals \$3.6 billion. There is discussion about FASD and the SAMHSA FASD Center for Excellence throughout the document. View the document at <http://www.samhsa.gov/Budget/FY2012/SAMHSA-FY11CJ.pdf>.

#### **Local Doctors Disagree with Survey Suggesting Expectant Moms Can Drink Occasionally, *The Northwestern*, February 10, 2011**

An obstetrician and gynecologist at Women's Health Specialists of the Fox Valley spoke out against a British study supporting drinking alcohol during pregnancy. The doctor said that alcohol consumption is at the top of the list of don'ts for pregnant women in America since drinking alcohol puts a child at risk of being born with FASD. View the article at <http://www.thenorthwestern.com/article/20110210/OSH04/110208066/Local-doctors-disagree-survey-suggesting-expectant-moms-can-drink-occasionally?odyssey=mod%7Cnewswell%7Ctext%7CFRONTPAGE%7Cs>

#### **Rowan Engineering Prof Researches Fetal Alcohol Syndrome with Collaborators, *Courier Post*, February 10, 2011**

Dr. Mary Staehle, a Rowan University assistant professor of chemical engineering, is currently conducting research using planaria (flatworms) as a model system for studying developmental problems caused by alcohol in humans. Her goal is to learn what level of alcohol leads to developmental problems in the flatworms and establish planaria. Planaria are known for their regeneration process, which simulates the process of human development making the worms useful for this study.

*Editor's Note: the Web link to this article is no longer active.*



## **AWARENESS SPOTLIGHT**

### ***National Alcohol Awareness Month***

#### **Excessive Drinking Starts in Youth, Creates Early Dependence and Resistance to Treatment**

National Alcohol Awareness Month seeks to raise public awareness about the consequences of alcohol misuse. During this month, communities mobilize to discourage and prevent underage drinking, often a primary focus of spring break activities that occur across the United States.

According to the Substance Abuse and Mental Health Services Administration's (SAMHSA) 2009 National Survey on Drug Use and Health (NSDUH), about 10.4 million young people aged 12 to 20 reported drinking alcohol in the past month.<sup>1</sup> More than half engage in high-risk binge- and heavy-drinking behaviors. Binge drinking is defined as consuming four or more alcoholic beverages within a few hours.<sup>2</sup> Studies also show that more than 35 percent of adults with an alcohol problem developed symptoms—such as binge drinking—by age 19.

Tragically, a huge gap exists between those who have an alcohol use problem and those who recognize the problem and accept the need for treatment. This gap is particularly acute for underage drinkers. Because episodes of heavy drinking are more common among youth in general than among older adults, those who develop dependence early may be less likely to recognize that they have a problem for which they need to seek help.<sup>3</sup> The NSDUH estimates that, in 2009, 19.3 million individuals aged 12 or older needed treatment for an alcohol use problem.<sup>4</sup>

#### ***Web-based Alcohol Self-screening Tool***

To gain greater awareness of alcohol use and if alcohol may be having a negative impact on your life, take an alcohol-use self-screening at [How Do You Score?](#) This brief self-evaluation, designed by Screening for Mental Health, a national nonprofit organization dedicated to providing the public with education, screening and treatment resources, is quick and anonymous.

SAMHSA, along with the Centers for Disease Control and Prevention (CDC), are clear about alcohol use:

- Don't drink if you are under the legal drinking age.
- Only drink alcohol in moderation—no more than one drink per day for women, two drinks a day for men.
- If you are pregnant, or have the potential to become pregnant, don't drink alcohol. (There is no known safe amount or type of alcohol to drink during pregnancy.)

Excessive alcohol use is responsible for many adverse health and social consequences, which include liver cirrhosis, breast and colon cancer, unintentional injuries, violence, unintended pregnancy, and fetal alcohol spectrum disorder.<sup>5</sup>

<sup>1,4</sup>Substance Abuse and Mental Health Services Administration (SAMHSA) Blog, *Alcohol Use Problems: Who's at Risk?* 05 Apr 2011 <<http://blog.samhsa.gov/2011/04/05/alcohol-use-problems-who%E2%80%99s-at-risk/?from=carousel&position=2&date=04082011>>. 13 Apr 2011.

<sup>2</sup>U.S. Department of Health and Human Services and SAMHSA's National Clearinghouse for Alcohol & Drug Information. *April is alcohol awareness month.* <<http://ncadi.samhsa.gov/seasonal/aprilalcohol/>>. 4 Feb 2010.

<sup>3</sup>Hingson, R. W., Heeren, T., & Winter, M. R. (2006). Age of alcohol-dependence onset: Associations with severity of dependence and seeking treatment. *Pediatrics*, 118, e755--e763.

<sup>5</sup> Guide to Community Preventive Services. *Preventing excessive alcohol use.* 05 Jan 2010 <[www.thecommunityguide.org/alcohol.html](http://www.thecommunityguide.org/alcohol.html)>. 4 Feb 2010.

The views expressed in the studies, publications, or other materials summarized or reproduced in the FASD Center Monthly Update, do not necessarily reflect the official policies or positions of the Department of Health and Human Services (HHS); nor does mention of trade names, commercial practices, or organizations imply endorsement by HHS and the U.S. Government.

Visit the Web sites below to learn more about the negative effects of alcohol abuse and ways to prevent it, or to locate an alcohol treatment program in your community.

- [The Community Guide - Alcohol - Preventing Excessive Alcohol](#)
- [CDC Features - Fetal alcohol spectrum disorders are 100% preventable](#)
- <http://www.ncadd.org/programs/awareness/aamk2011new.html>
- <http://findtreatment.samhsa.gov/>



## FASD AND RELATED CONFERENCES & EVENTS

### May 2011

**International Society on Early Intervention & YAI National Institute for People with Disabilities**

**Date:** May 2–5, 2011

**Location:** New York, New York

**Description:** This conference is major forum for the exchange of ideas and the introduction of new models and strategies for a positive impact in the field of developmental and learning disabilities.

**Registration:** Register before April 9 to obtain hotel discount.

<http://www.yai.org/resources/conferences/yai-conference/hotel-information.html>.

**American Psychiatric Association Annual Meeting 2011, "Transforming Mental Health Through Leadership, Discovery and Collaboration"**

**Date:** May 14–18, 2011

**Location:** Honolulu, Hawaii

**Description:** This is one of the major American scientific gatherings. Most of the attendees are physicians from psychiatric and other mental health disciplines, including social workers and nurses. The meeting features hundreds of educational sessions and presentations on the latest research.

**Registration:** For information, please visit

<http://eventful.com/honolulu/events/american-psychiatric-association-annual-meeting-20-/E0-001-036265878-0>.

**National Association of Addiction Treatment Providers Leadership Conference**

**Date:** May 14–17, 2011

**Location:** Phoenix, Arizona

**Description:** Annual event. Leaders in addiction treatment provision discuss the important issues, showcase innovative resources and programs, and network with the decision makers in addiction treatment.

**Registration:** Preconference, full conference registration and CEUs available. More at

<http://www.naatp.org/pdf/2011-annual-conference/2011-registration-brochure.pdf>.

**The Society for Prevention Research (SPR) 19th Annual Meeting, "Prevention Scientists Promoting Global Health: Emerging Visions for Today and Tomorrow"**

**Date:** May 31–June 3, 2011

**Location:** Washington, District of Columbia

**Description:** The conference will emphasize prevention science from a global health perspective with the intent of fostering worldwide rapid development and/or diffusion of policies, strategies, and programs that have a scientific basis.

**Registration:** Early bird-April 25, full registration-May 27. For additional information, please visit:

[http://www.preventionresearch.org/SPR2011\\_Call\\_for\\_Papers\\_Final83010.pdf](http://www.preventionresearch.org/SPR2011_Call_for_Papers_Final83010.pdf).

### June 2011

**American Association on Intellectual and Developmental Disabilities Annual Meeting, 135th Annual Meeting Inclusive Communities: Pathways to Realizing the Vision**

**Date:** June 5–9, 2011

**Location:** Twins City, Minnesota

**Description:** The conference focuses on sharing expertise and ideas relevant to creating inclusive communities.

**Registration:** Onsite registration only after April 18, 2011. Link to

<http://www.childlife.org/Annual%20Conference/Registration.cfm>.

**National Coalition for Homeless Veterans Annual Meeting**

**Date:** June 6–8, 2011

**Location:** Washington, District of Columbia

**Description:** This conference focuses on the current Administration's Plan to end homelessness among Veterans.

**Registration:** \$35 late registration fee after May 1. More information at

<http://www.nchv.org/annualconference.cfm>.

<p><b>Academy Health's Annual Research Policy Meeting</b>  <b>Date:</b> June 12–14, 2011  <b>Location:</b> Seattle, Washington  <b>Description:</b> Academy Health Annual Research Meeting (ARM) focuses on opportunities for researchers to share important findings with policymakers and providers who can put the research into action.  <b>Registration:</b> For more information, please visit <a href="http://www.academyhealth.org/content.cfm?ItemNumber=857&amp;navItemNumber=1998">http://www.academyhealth.org/content.cfm?ItemNumber=857&amp;navItemNumber=1998</a>.</p>	<p><b>27th Annual National Rural Institute on Alcohol and Drug Abuse</b>  <b>Date:</b> June 12–16, 2011  <b>Location:</b> Menomonie, Wisconsin  <b>Description:</b> This is the annual meeting of professionals working in alcohol and drug addiction/treatment/adjudication fields in rural areas.  <b>Registration:</b> CEUs and graduate credit are available. Advance registration deadline: May 27, 2011. To register, please visit <a href="http://www3.uwstout.edu/profed/nri/index.cfm">http://www3.uwstout.edu/profed/nri/index.cfm</a>.</p>
<p><b>Association of Women's Health, Obstetric and Neonatal Nurses Annual Convention: "Promoting the Health of Women and Newborns"</b>  <b>Date:</b> June 25–29, 2011  <b>Location:</b> Denver, Colorado  <b>Description:</b> This convention focusing on new directions in the care of women and newborns.  <b>Registration:</b> <a href="http://www.awhonn.org/awhonn/convention/index.jsp">http://www.awhonn.org/awhonn/convention/index.jsp</a></p>	