

## PERIMETER LETTER 4.12.05

### AUTISM

*Amygdala and fusiform gyrus activation were directly related to time spent looking at faces, in autistic individuals undergoing fMRI. Figures 6 and 7 have the main results:*

Dalton KM, Nacewicz BM, Johnstone T, Schaefer HS, Gernsbacher MA, Goldsmith HH, Alexander AL, Davidson RJ.

#### **Gaze fixation and the neural circuitry of face processing in autism.**

[Nat Neurosci. 2005 Apr;8:519-26.](#)

- Related article: [Neuroimage. 2004 Jul;22:1141-50.](#)

- Related textbook entry: [Moore & Jefferson: Handbook of Medical Psychiatry, pp38-41.](#)

### MEDICATION COST

*The initiation of a three-tier formulary led to a 46% increase in enrollee spending for ADHD medications and a 17% decrease in the use of those medications, when compared to a group without formulary changes. Table 3 summarizes the results:*

Huskamp HA, Deverka PA, Epstein AM, Epstein RS, McGuigan KA, Muriel AC, Frank RG.

#### **Impact of 3-tier formularies on drug treatment of attention-deficit/hyperactivity disorder in children.**

[Arch Gen Psychiatry. 2005 Apr;62:435-41.](#)

- Related article: [Pediatrics. 2000 Nov;106:1199-223.](#)

- Related textbook entry: [Health Services/Technology Assessment Text \(HSTAT\). 110: 5.](#)

### PHARMACOLOGY

*During chronic SSRI exposure in mouse brain, the dopamine transporter produces serotonin accumulation in striatal dopamine terminals, which then corelease dopamine and serotonin. Figures 6 and 8 show the main concepts:*

Zhou F-M, Liang Y, Salas R, Zhang L, De Biasi M, Dani JA.

#### **Corelease of Dopamine and Serotonin from Striatal Dopamine Terminals.**

[Neuron. 2005 Apr 7;46:65-74.](#)

- Related article: [Amino Acids. 2000;19:45-52.](#)

- Related textbook entry: [Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition. Part 6: 45.](#)

### SCHIZOPHRENIA

*This review discusses working memory dysfunction in schizophrenia in terms of decreased TrkB receptors in dorsolateral prefrontal cortical GABAergic neurons and resultant decreased synchrony of gamma-frequency oscillations. Figures 1 and 6 give summaries:*

Lewis DA, Hashimoto T, Volk DW.

#### **Cortical inhibitory neurons and schizophrenia.**

[Nat Rev Neurosci. 2005 Apr;6:312-24.](#)

- Related article: [Brain Res Brain Res Rev. 2000 Mar;31:270-6.](#)

- Related textbook entry: [Basic Neurochemistry: Molecular, Cellular and Medical Aspects, Sixth Edition. Part 7: 51.](#)

*The left hippocampus decreased activity in the right dorsolateral prefrontal cortex during a working memory task in schizophrenic patients but not in healthy controls, in this fMRI study. Figure 3 has the main results:*

Meyer-Lindenberg AS, Olsen RK, Kohn PD, Brown T, Egan MF, Weinberger DR, Berman KF.

**Regionally specific disturbance of dorsolateral prefrontal-hippocampal functional connectivity in schizophrenia.**

[Arch Gen Psychiatry. 2005 Apr;62:379-86.](#)

- Related article: [Hippocampus. 2001;11:508-19.](#)

- Related textbook entry: [Basic Neurochemistry: Molecular, Cellular and Medical Aspects, Sixth Edition. Part 7: 51.](#)

## ANXIETY

*Central amygdala signals to the brainstem are decreased by cortical oxytocinergic afferents and increased by basolateral amygdala vasopressinergic afferents in rat brain, perhaps thereby modulating the autonomic fear response. Figure 4 has the main results:*

Huber D, Veinante P, Stoop R.

**Vasopressin and Oxytocin Excite Distinct Neuronal Populations in the Central Amygdala.**

[Science. 2005 Apr 8;308:245-8.](#)

- Related article: [Eur J Neurosci. 2000 Nov;12:3975-84.](#)

- Related textbook entry: [Neuroscience. V:29.](#)

## BEHAVIORAL CONTROL

*When Drosophila giant fiber or dopaminergic neurons were genetically targeted to express ion channels that respond to light, exposing flies to light caused wing flapping or changes in locomotor activity, respectively. Figures 3 and 5 have the main results:*

Lima SQ, Miesenbock G.

**Remote Control of Behavior through Genetically Targeted Photostimulation of Neurons.**

[Cell. 2005 Apr 8;121:141-52.](#)

- Related article: [Proc Natl Acad Sci U S A. 2003 Feb 4;100:1352-7.](#)

- Related textbook entry: [Molecular Biology of the Cell. III: 8.](#)

## RNA INTERFERENCE

*Superoxide dismutase 1<sup>G93A</sup> transgenic mice, a model of amyotrophic lateral sclerosis, showed delayed disease onset and progression after intraspinal injection of lentiviral vectors containing small interfering RNA. Figure 2 has the main results:*

Raoul C, Abbas-Terki T, Bensadoun JC, Guillot S, Haase G, Szulc J, Henderson CE, Aebischer P.

**Lentiviral-mediated silencing of SOD1 through RNA interference retards disease onset and progression in a mouse model of ALS.**

[Nat Med. 2005 Apr;11:423-8.](#)

- Related article: [Curr Gene Ther. 2002 Dec;2:451-83.](#)

- Related textbook entry: [Neuroscience. III: 16.](#)

## PSYCHOLOGY

*Based on increased looking times, 15-month-old infants appeared to understand another person's true and false beliefs about an object's location. Figure 4 has the main results:*

Onishi KH, Baillargeon R.

**Do 15-Month-Old Infants Understand False Beliefs?**

[Science. 2005 Apr 8;308:255-8.](#)

- Related article: [Trends Cogn Sci. 2000 Jan;4:22-28.](#)

- Related textbook entry: [Behrman: Nelson Textbook of Pediatrics, pp 67-68.](#)

## DUKE RESEARCH

### MED-PSYCH

Blumenthal JA, Sherwood A, Babyak MA, Watkins LL, Waugh R, Georgiades A, Bacon SL, Hayano J, Coleman RE, Hinderliter A.

**Effects of exercise and stress management training on markers of cardiovascular risk in patients with ischemic heart disease: a randomized controlled trial.**

JAMA. 2005 Apr 6;293:1626-34.

Blumenthal JA, Lett HS.

**Depression and cardiac risk.**

J Cardiopulm Rehabil. 2005 Mar-Apr;25:78-9.

Schanberg LE, Gil KM, Anthony KK, Yow E, Rochon J.

**Pain, stiffness, and fatigue in juvenile polyarticular arthritis: Contemporaneous stressful events and mood as predictors.**

Arthritis Rheum. 2005 Apr 7;52:1196-1204

Demark-Wahnefried W, Werner C, Clipp EC, Guill AB, Bonner M, Jones LW, Rosoff PM.

**Survivors of childhood cancer and their guardians.**

Cancer. 2005 Apr 5

### CHILD

Curtis LH, Masselink LE, Ostbye T, Hutchison S, Dans PE, Wright A, Krishnan RR, Schulman KA.

**Prevalence of atypical antipsychotic drug use among commercially insured youths in the United States.**

Arch Pediatr Adolesc Med. 2005 Apr;159:362-6.

## SOCIOLOGY

Homaifar N, Wasik S.

**Interviews with senegalese commercial sex trade workers and implications for social programming.**

Health Care Women Int. 2005 Feb;26:118-33.

## RELIGION

Johnson KS, Elbert-Avila KI, Tulsy JA.

**The influence of spiritual beliefs and practices on the treatment preferences of african americans: a review of the literature.**

J Am Geriatr Soc. 2005 Apr;53:711-9.

Harrison MO, Edwards CL, Koenig HG, Bosworth HB, Decastro L, Wood M.

**Religiosity/Spirituality and pain in patients with sickle cell disease.**

J Nerv Ment Dis. 2005 Apr;193:250-7.

## IMAGING

Lascola CD.

**Diffusion Tensor Tractography: Exploring the Cost-Benefit Ratio of Incorporating CSF Suppression into Fiber Tracing Algorithms.**

AJNR Am J Neuroradiol. 2005 Apr;26:693-4.

## PHARMACOLOGY

Kreider ML, Levin ED, Seidler FJ, Slotkin TA.

**Gestational Dexamethasone Treatment Elicits Sex-Dependent Alterations in Locomotor Activity, Reward-Based Memory and Hippocampal Cholinergic Function in Adolescent and Adult Rats.**

Neuropsychopharmacology. 2005 Apr 6

## PSYCHOLOGY

Talarico JM, LaBar KS, Rubin DC.

**Emotional intensity predicts autobiographical memory experience.**

Mem Cognit. 2004 Oct;32:1118-32.

Wilson KD, Woldorff MG, Mangun GR.

**Control networks and hemispheric asymmetries in parietal cortex during attentional orienting in different spatial reference frames.**

Neuroimage. 2005 Apr 15;25:668-83.