

#### SUBSTANCE ABUSE

##### **Smoking cessation, lung function, and weight gain: a follow-up study.**

Chinn S, Jarvis D, Melotti R, Luczynska C, Ackermann-Liebrich U, Anto JM, Cerveri I, de Marco R, Gislason T, Heinrich J, Janson C, Kunzli N, Leynaert B, Neukirch F, Schouten J, Sunyer J, Svanes C, Vermeire P, Wjst M, Burney P.

*Lancet*. 2005 May;365:1629-35

*There was less decline in FEV1, compared to nonsmokers, among those who quit smoking versus those who continued smoking during 8 years of follow-up, but the effect was reduced by weight gain, especially in men, in this population-based study of 6654 individuals. See Figure 2.*

*Smoking cessation may be responsible for some of the rise in overweight in the United States (N Engl J Med. 1995 Nov 2;333:1165-70). Bupropion and nortriptyline help maintain long-term smoking cessation (Cochrane Database Syst Rev. 2004 Oct 18;(4):CD000031).*

#### GENETICS

##### **The dopamine D4 receptor gene 48-base-pair-repeat polymorphism and mood disorders: a meta-analysis.**

Lopez Leon S, Croes EA, Sayed-Tabatabaei FA, Claes S, Van Broeckhoven C, van Duijn CM.

*Biol Psychiatry*. 2005 May 1;57:999-1003.

*The dopamine D4 receptor gene polymorphism with 2 48-base-pair repeats was associated with unipolar depression (odds ratio 1.73,  $p < .0003$ ) and combined unipolar depression and bipolar disorder (OR 1.41,  $p < .0002$ ), in this meta-analysis of 12 studies including 917 patients and 1164 control subjects. See Table 3.*

*This extends previous results showing an association between the dopamine D4 receptor gene and unipolar depression (J Affect Disord. 1996 Sep 9;40:7-13). Several lines of evidence implicate dopamine in the mechanism of depression (Basic Neurochemistry, 6 ed.).*

#### GERIATRICS

##### **Inhibition of glycogen synthase kinase-3 by lithium correlates with reduced tauopathy and degeneration in vivo.**

Noble W, Planel E, Zehr C, Olm V, Meyerson J, Suleman F, Gaynor K, Wang L, Lafrancois J, Feinstein B, Burns M, Krishnamurthy P, Wen Y, Bhat R, Lewis J, Dickson D, Duff K.

*Proc Natl Acad Sci U S A*. 2005 May 10; 102:6990-5.

*Lower levels of aggregated tau protein, resembling Alzheimer's disease tangles, were evident after transgenic mice overexpressing tau were administered chronic lithium chloride or another glycogen synthase kinase-3 inhibitor; and decreased aggregated tau correlated with decreased axonal degeneration. See Figures 3 and 5.*

*Glycogen synthase kinase-3 beta, which is selectively inhibited by lithium, is associated with Alzheimer's plaques, tangles, and presenilins (Prog Neurobiol. 2001 Nov;65:391-426), as well as with neuronal apoptosis (Eurekah Bioscience Collection).*

#### PALLIATIVE CARE

##### **Palliative care in the final days of life: "they were expecting it at any time".**

Hallenbeck J.

*JAMA*. 2005 May 11;293:2265-71.

*Suggestions for the care of actively dying patients and their families, including the discussion of autopsy, are outlined in this case-based review. See Box 2.*

*Physical symptoms may be predicted by particular characteristics of terminally ill patients (J Pain Symptom Manage. 1999 Nov; 18:338-46); but for terminally ill patients with delirium, there is little evidence to guide pharmacotherapy (Cochrane Database Syst Rev. 2004;(2):CD004770).*

#### BIOLOGY

##### **Developmental neurobiology and clinical disorders: lost in translation?**

Levitt P.

*Neuron*. 2005 May 5;46:407-12.

*Mental retardation, autism, and schizophrenia are discussed in terms of alterations in neurodevelopment, with an emphasis on the interaction between multiple genes and the environment.*

*NMDA glutamate receptor hypofunction is one theory linking aberrant neurodevelopment to schizophrenia (Arch Gen Psychiatry. 1995 Dec; 52:998-1007); another developmental hypothesis*

is based on enlarged cerebral ventricles (*Basic Neurochemistry, 6 ed.*).

#### MED-PSYCH

##### **Positive affect and health-related neuroendocrine, cardiovascular, and inflammatory processes.**

Steptoe A, Wardle J, Marmot M.

*Proc Natl Acad Sci U S A.* 2005 May 3; 102:6508-12.

*Higher rates of happiness during a work day or leisure day were associated with decreased salivary cortisol, decreased heart rate in men, and, after induced mental stress, less increase in plasma fibrinogen, in this study of 116 male and 100 female healthy middle-aged volunteers. See Figure 1.*

*Elevated cortisol and heart rate responses to stress have been seen in women with depression or a history of childhood abuse (JAMA. 2000 Aug 2;284:592-7). Although the apparent health benefits of happiness are reminiscent of the placebo effect, there is no evidence of clinically significant outcomes from placebo versus no treatment (Cochrane Database Syst Rev. 2004;(3):CD003974).*

#### FORENSICS

##### **Physician as serial killer--the Shipman case.**

Esmail A.

*N Engl J Med.* 2005 May 5;352:1843-4.

*The regulatory implications of the case of Harold Shipman, a British physician who killed at least 218 people from 1970 to 1998, are discussed by the medical advisor for the case.*

*Since Shipman, methods have been developed to assess death rates in primary care (Lancet. 2003 Aug 9;362:485-91). In a related issue, there are widely disparate opinions regarding euthanasia (Cancer Medicine, 6 ed.).*

#### COMPLEMENTARY MEDICINE

##### **Acupuncture for patients with migraine: a randomized controlled trial.**

Linde K, Streng A, Jurgens S, Hoppe A, Brinkhaus B, Witt C, Wagenpfeil S, Pfaffenrath V, Hammes MG, Weidenhammer W, Willich SN, Melchart D.

*JAMA.* 2005 May 4;293:2118-25.

*No difference was seen in migraine severity after 8 weeks of acupuncture in 145 patients versus sham acupuncture (which involved needling) in 81 patients, but the intention-to-treat analysis showed a difference in migraine severity between either condition and 76 waiting*

*list control patients, in this randomized trial. See Figure 2.*

*Previous randomized controlled trials of true acupuncture for headaches have generally been of poor quality and often shown little benefit (Cephalalgia. 1999 Nov;19:779-86), with only half of trials versus sham acupuncture showing statistical benefit (Cochrane Database Syst Rev. 2001;(1):CD001218).*



DUKE RESEARCH

#### CHILD

##### **Acute service delivery in a police-mental health program for children exposed to violence and trauma.**

Murphy RA, Rosenheck RA, Berkowitz SJ, Marans SR.

*Psychiatr Q.* 2005 Summer;76:107-21.

#### GERIATRICS

##### **Variable foreperiod deficits in Parkinson's disease: Dissociation across reflexive and voluntary behaviors.**

Jurkowski AJ, Stepp E, Hackley SA.

*Brain Cogn.* 2005 Jun;58:49-61.

#### GENETICS

##### **SNPs in the neural cell adhesion molecule 1 gene (NCAM1) may be associated with human neural tube defects.**

Deak KL, Boyles AL, Etchevers HC, Melvin EC, Siegel DG, Graham FL, Slifer SH, Enterline DS, George TM, Vekemans M, McClay D, Bassuk AG, Kessler JA, Linney E, Gilbert JR, Speer MC; NTD Collaborative Group.

*Hum Genet.* 2005 May 10

#### PSYCHOLOGY

##### **Cortical ensemble adaptation to represent velocity of an artificial actuator controlled by a brain-machine interface.**

Lebedev MA, Carmena JM, O'Doherty JE, Zacksenhouse M, Henriquez CS, Principe JC, Nicolelis MA.

*J Neurosci.* 2005 May 11;25:4681-93.

**The Poggendorff illusion explained by natural scene geometry.**

Howe CQ, Yang Z, Purves D.

Proc Natl Acad Sci U S A. 2005 May 11

**Neuropsychology of timing and time perception.**

Meck WH.

Brain Cogn. 2005 Jun;58:1-8.

**BIOLOGY**

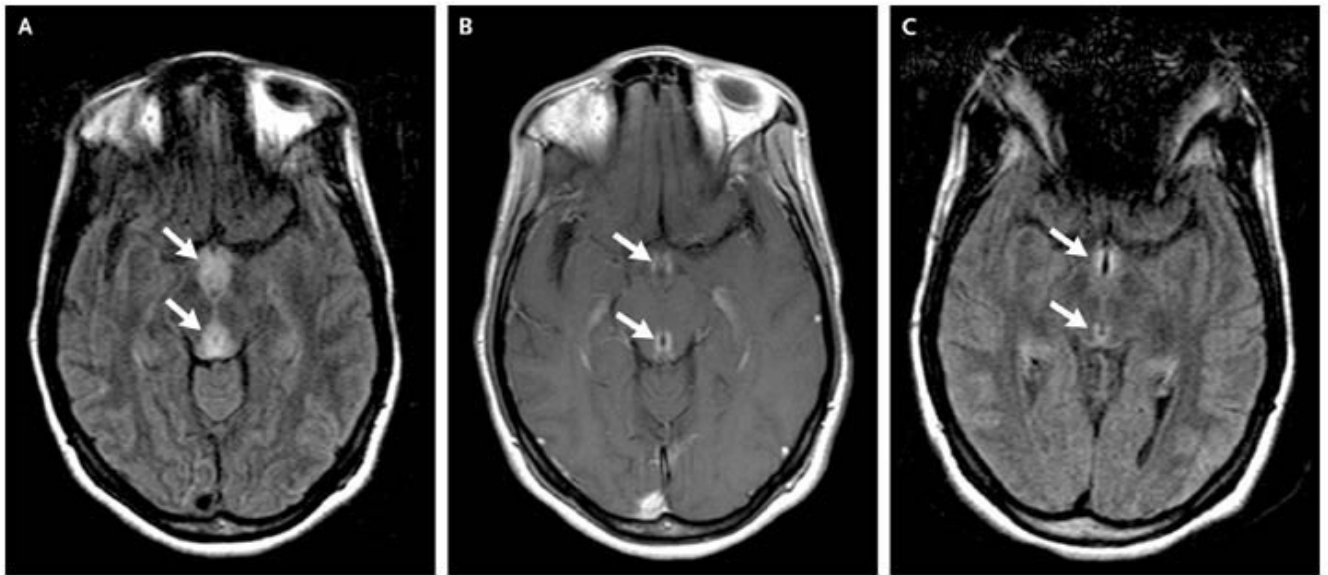
**Computing with Thalamocortical Ensembles during Different Behavioral States.**

Nicolelis M.

J Physiol. 2005 May 5



FIGURE OF THE WEEK



N Engl J Med. 2005 May 12;352:e18.