

PERIMETER LETTER 4.5.05

END OF LIFE

After the death of a child there was an increased risk of first psychiatric hospitalization in parents, especially mothers, in this population-based study. Table 1 has the main results:

- Li J, Laursen TM, Precht DH, Olsen J, Mortensen PB. **Hospitalization for mental illness among parents after the death of a child.** N Engl J Med. 2005 Mar 24;352:1190-6. [Link](#)
- Related article: Community Ment Health J. 1997 Oct;33(5):401-13. [Link](#)
 - Related textbook entry: Cancer Medicine 6. Part V: section 17: 70. [Link](#)

SUICIDE

Five percent of people with schizophrenia will eventually commit suicide, usually in the first years of their illness, according to this review of 61 studies. Figure 1 shows the main results:

- Palmer BA, Pankratz VS, Bostwick JM. **The lifetime risk of suicide in schizophrenia: a reexamination.** Arch Gen Psychiatry. 2005 Mar;62:247-53. [Link](#)
- Related article: Am J Psychiatry. 1999 Oct;156:1590-5. [Link](#)
 - Related textbook entry: Health Services/Technology Assessment Text (HSTAT) [Link](#)

PTSD increased the risk of suicide attempt in patients with major depression, and cluster B personality appeared to contribute to the effect, in this retrospective study. Tables 2 and 3 have the main results:

- Oquendo M, Brent DA, Birmaher B, Greenhill L, Kolko D, Stanley B, Zelazny J, Burke AK, Firinciogullari S, Ellis SP, Mann JJ. **Posttraumatic stress disorder comorbid with major depression: factors mediating the association with suicidal behavior.** Am J Psychiatry. 2005 Mar;162:560-6. [Link](#)
- Related article: Biol Psychiatry. 1999 May 15;45:1259-70. [Link](#)
 - Related textbook entry: Health Services/Technology Assessment Text (HSTAT). 36: chapter 2. [Link](#)

TRAUMA

Risk factors for PTSD in children after an earthquake in Greece included depression, particular earthquake experiences, and household difficulties, in this school-based study. Table 2 has the main results:

- Roussos A, Goenjian AK, Steinberg AM, Sotiropoulou C, Kakaki M, Kabakos C, Karagianni S, Manouras V. **Posttraumatic stress and depressive reactions among children and adolescents after the 1999 earthquake in ando liosia, Greece.** Am J Psychiatry. 2005 Mar;162:530-7. [Link](#)
- Related article: Am J Psychiatry. 2001 May;158(5):788-94. [Link](#)
 - Related textbook entry: Health Services/Technology Assessment Text (HSTAT) [Link](#)

The amygdala appears to be overresponsive and the medial frontal cortex underresponsive in people with PTSD, when shown fearful versus happy faces during fMRI. Figures 1 and 2 show the main results:

Shin LM, Wright CI, Cannistraro PA, Wedig MM, McMullin K, Martis B, Macklin ML, Lasko NB, Cavanagh SR, Krangel TS, Orr SP, Pitman RK, Whalen PJ, Rauch SL. **A functional magnetic resonance imaging study of amygdala and medial prefrontal cortex responses to overtly presented fearful faces in posttraumatic stress disorder.** Arch Gen Psychiatry. 2005 Mar;62:273-81. [Link](#)

- Related article: Brain Res Brain Res Rev. 2003 Jan;41:88-123. [Link](#)

- Related textbook entry: Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition. Part 7: 52. [Link](#)

SLEEP

Cardiac sudden death in patients with obstructive sleep apnea occurred most often between midnight and 6am, in contrast to those without apnea, in this retrospective study.

Figure 1 has the main results:

Gami AS, Howard DE, Olson EJ, Somers VK. **Day-night pattern of sudden death in obstructive sleep apnea.** N Engl J Med. 2005 Mar 24;352:1206-14.

[Link](#)

- Related article: Chest. 1997 Feb;111:387-93. [Link](#)

- Related textbook entry: Health Services/Technology Assessment Text (HSTAT) [Link](#)

PAIN

Morphine and gabapentin combined decrease neuropathic pain more than either agent alone, and at lower doses of each, in this crossover trial in patients. Figure 2 has the main results:

Gilron I, Bailey JM, Tu D, Holden RR, Weaver DF, Houlden RL. **Morphine, gabapentin, or their combination for neuropathic pain.** N Engl J Med. 2005 Mar 31;352:1324-34. [Link](#)

- Related article: Anesth Analg. 2000 Jul;91:185-91. [Link](#)

- Related textbook entry: Health Services/Technology Assessment Text (HSTAT). 35: volume 1: chapter 3. [Link](#)

HEALTH CARE REFORM

The authors argue for the benefits of a voucher system for universal health care over the current system. Table 1 summarizes their points:

Emanuel EJ, Fuchs VR. **Health care vouchers--a proposal for universal coverage.** N Engl J Med. 2005 Mar 24;352:1255-60. [Link](#)

- Related article: Health Aff (Millwood). 1998 Jan-Feb;17:52-68. [Link](#)

- Related textbook entry: Health Services/Technology Assessment Text (HSTAT). 101: chapter 3. [Link](#)

DEPRESSION

Low-field magnetic stimulation had an antidepressant effect in rats. Figure 4 has the main results:

- Carlezon WA Jr, Rohan ML, Mague SD, Meloni EG, Parsegian A, Cayetano K, Tomasiewicz HC, Rouse ED, Cohen BM, Renshaw PF. **Antidepressant-like effects of cranial stimulation within a low-energy magnetic field in rats.** *Biol Psychiatry*. 2005 Mar 15;57:571-6. [Link](#)
- *Related article:* *J Psychiatr Res*. 2001 Jul-Aug;35:193-215. [Link](#)
 - *Related textbook entry:* *Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition*. Part 7: 52. [Link](#)

SCHIZOPHRENIA

Clozapine activates the MEK/ERK signaling cascade in rat frontal cortex and thereby reduces conditioned avoidance response. Figure 4 has the main results:

- Browning JL, Patel T, Brandt PC, Young KA, Holcomb LA, Hicks PB. **Clozapine and the mitogen-activated protein kinase signal transduction pathway: Implications for antipsychotic actions.** *Biol Psychiatry*. 2005 Mar 15;57:617-623. [Link](#)
- *Related article:* *J Neurosci*. 1997 May 15;17:3455-66. [Link](#)
 - *Related textbook entry:* *Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition*. Part 3: 24. [Link](#)

PHARMACOLOGY

A silicon nanowire field-effect transistor detected dose-dependent inhibition of ATP binding to the protein Abl by the drug Gleevec. Figure 3 has the main results:

- Wang WU, Chen C, Lin KH, Fang Y, Lieber CM. **Label-free detection of small-molecule-protein interactions by using nanowire nanosensors.** *Proc Natl Acad Sci U S A*. 2005 Mar 1;102:3208-12. [Link](#)
- *Related article:* *Angew Chem Int Ed Engl*. 2001;40:4128-58. [Link](#)
 - *Related textbook entry:* *Essentials of Glycobiology*. Chapter 38. [Link](#)

MEMORY

GluR1 subunit-containing AMPA-type glutamate receptors are incorporated by postsynaptic neurons in the lateral amygdala during fear conditioning in rats. Figure 4 has key results:

- Rumpel S, LeDoux J, Zador A, Malinow R. **Postsynaptic receptor trafficking underlying a form of associative learning.** *Science*. 2005 Apr 1;308:83-8. [Link](#)
- *Related article:* *Science*. 1999 Sep 17;285(5435):1870-4. [Link](#)
 - *Related textbook entry:* *Molecular Cell Biology*. 21.7. [Link](#)

HIV

A patient in New York has a multidrug-resistant strain of HIV-1 that caused AIDS in under 20 months and that is tropic for the CCR5 and CXCR4 coreceptors. Figure 1 shows the course of illness:

- Markowitz M, Mohri H, Mehandru S, Shet A, Berry L, Kalyanaraman R, Kim A, Chung C, Jean-Pierre P, Horowitz A, La Mar M, Wrin T, Parkin N, Poles M, Petropoulos C, Mullen M, Boden D, Ho DD. **Infection with multidrug resistant, dual-tropic HIV-1 and rapid progression to AIDS: a case report.** *Lancet*. 2005 Mar 16;365:1031-8. [Link](#)

- *Related article*: J Antimicrob Chemother. 2003 Feb;51(2):229-40. [Link](#)
- *Related textbook entry*: Retroviruses. [Link](#)

DUKE RESEARCH

GERIATRICS

Blazer DG, Hybels CF, Fillenbaum GG, Pieper CF. **Predictors of antidepressant use among older adults: have they changed over time?** Am J Psychiatry. 2005 Apr;162:705-10.

SUBSTANCE ABUSE

Abdel-Rahman A, Dechkovskaia AM, Sutton JM, Chen WC, Guan X, Khan WA, Abou-Donia MB. **Maternal exposure of rats to nicotine via infusion during gestation produces neurobehavioral deficits and elevated expression of glial fibrillary acidic protein in the cerebellum and CA1 subfield in the offspring at puberty.** Toxicology. 2005 May 5;209:245-61.

McClernon FJ, Gilbert DG. **Human functional neuroimaging in nicotine and tobacco research: basics, background, and beyond.** Nicotine Tob Res. 2004 Dec;6:941-59.

CHILD

De Bellis MD. **The psychobiology of neglect.** Child Maltreat. 2005 May;10:150-72.

PHARMACOLOGY

Moorman PG, Berchuck A, Calingaert B, Halabi S, Schildkraut JM. **Antidepressant medication use for and risk of ovarian cancer.** Obstet Gynecol. 2005 Apr;105:725-30.

PSYCHOLOGY

Huettel SA, Song AW, McCarthy G. **Decisions under uncertainty: probabilistic context influences activation of prefrontal and parietal cortices.** J Neurosci. 2005 Mar 30;25:3304-11.

Deaner RO, Khera AV, Platt ML. **Monkeys pay per view: adaptive valuation of social images by rhesus macaques.** Curr Biol. 2005 Mar 29;15:543-8.