

PERIMETER LETTER 3.29.05

GERIATRICS

- *Transgenic mice modeling Alzheimer's disease had less amyloid deposition when raised in an environment promoting physical activity. Figure 1 has key results:*

Lazarov O, Robinson J, Tang YP, Hairston IS, Korade-Mirnic Z, Lee VM, Hersh LB, Sapolsky RM, Mirnic K, Sisodia SS. Environmental enrichment reduces Abeta levels and amyloid deposition in transgenic mice. *Cell*. 2005 Mar 11;120:701-13.

<http://download.cell.com/pdfs/0092-8674/PIIS0092867405000899.pdf>

- *A related article:* *J Neural Transm*. 2003 Jun;110:641-9.

<http://www.springerlink.com/media/C96E78B4FK1TVJ5F2J4K/Contributions/9/V/1/0/9V10YVTG0R26D0F1.pdf>

- *A related textbook entry:* *Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition*. Part 6: 46.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Environmental+++Amyloid+++AND+161510%5Buid%5D&rid=bnchm.section.3282#3283>

- *This review discusses the amyloid processing genes associated with Alzheimer's disease. Figure 1 gives a summary:*

Tanzi RE, Bertram L. Twenty years of the Alzheimer's disease amyloid hypothesis: a genetic perspective. *Cell*. 2005 Feb 25;120:545-55.

<http://download.cell.com/pdfs/0092-8674/PIIS0092867405001522.pdf>

- *A related article:* *Trends Neurosci*. 1998 Jan;21:15-9.

http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6T0V-3TGMNDF-M-1&_cdi=4872&_user=38557&_orig=search&_coverDate=01%2F01%2F1998&_qd=1&_sk=999789998&_view=c&_wchp=dGLbVlb-zSkzV&_md5=55189b1888803e88459b8f9c1cdfc57&_ie=/sdarticle.pdf

- *A related textbook entry:* *Neuroscience*. Part V: 31.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Alzheimer's+Disease+Amyloid+Hypothesis+A+Genetic+AND+232320%5Buid%5D&rid=neurosci.box.2206>

- *This review discusses the future of therapies for aging. Figure 1 gives a summary:*

Hadley EC, Lakatta EG, Morrison-Bogorad M, Warner HR, Hodes RJ. The future of aging therapies. *Cell*. 2005 Feb 25;120:557-67.

<http://download.cell.com/pdfs/0092-8674/PIIS0092867405001042.pdf>

- *A related article:* *Psychiatr Serv*. 1999 Sep;50:1167-72.

<http://ps.psychiatryonline.org/cgi/reprint/50/9/1167>

- *A related textbook entry:* *Health Services/Technology Assessment Text (HSTAT)*. Number 86.

<http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat4.chapter.9981>

END OF LIFE

- *This review gives suggestions for handling conflict in end-of-life care. Table 4 summarizes suggestions:* Back AL, Arnold RM. Dealing with conflict in caring for the seriously ill: "it was just out of the question". *JAMA*. 2005 Mar 16;293:1374-81.

<http://jama.ama-assn.org/cgi/reprint/293/11/1374.pdf>

- *A related article:* *BMJ*. 2002 Dec 7;325:1342-5.

<http://bmj.bmjournals.com/cgi/reprint/325/7376/1342>

- *A related textbook entry:* *Cancer Medicine 6*. Section 22: 79.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Conflict+Ill+AND+353454%5Buid%5D&rid=cmed6.section.19132#19138>

PHARMACOLOGY

- *This review recommends how to do systematic meta-analyses for antidepressants. Table 2 lists the recommendations:*

Lieberman JA, Greenhouse J, Hamer RM, Krishnan KR, Nemeroff CB, Sheehan DV, Thase ME, Keller MB. Comparing the effects of antidepressants: consensus guidelines for evaluating quantitative reviews of antidepressant efficacy. *Neuropsychopharmacology*. 2005 Mar;30:445-60.

<http://www.nature.com/cgi-taf/DynaPage.taf?file=/npp/journal/v30/n3/full/1300571a.html&filetype=pdf>

- A related article: *Psychiatr Serv*. 2002 Nov;53:1419-31.

<http://ps.psychiatryonline.org/cgi/reprint/53/11/1419>

- A related textbook entry: *Health Services/Technology Assessment Text (HSTAT)*. 6: chapter 3.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Antidepressants+Reviews+of+Antidepressant+AND+hstat%5Bbook%5D+AND+277919%5Buid%5D&rid=hstat3.section.2030#2046>

- This review discusses serotonin syndrome. Figure 4 summarizes diagnosis:

Boyer EW, Shannon M. The serotonin syndrome. *N Engl J Med*. 2005 Mar 17;352:1112-20.

<http://content.nejm.org/cgi/reprint/352/11/1112.pdf>

- A related article: *J Psychopharmacol*. 1999;13:100-9.

<http://jop.sagepub.com/cgi/reprint/13/1/100>

- A related textbook entry: *Health Services/Technology Assessment Text (HSTAT)*. Number 7.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=The+Serotonin+Syndrome+AND+hstat%5Bbook%5D+AND+238547%5Buid%5D&rid=hstat1.section.9387#9565>

- This review discusses the potential of RNA interference for the treatment of neurologic and other diseases. The Table summarizes recent results:

Shankar P, Manjunath N, Lieberman J. The prospect of silencing disease using RNA interference. *JAMA*. 2005 Mar 16;293:1367-73.

<http://jama.ama-assn.org/cgi/reprint/293/11/1367.pdf>

- A related article: *Hum Mol Genet*. 2003 Oct 15;12 Spec No 2:R279-84.

http://hmg.oupjournals.org/cgi/reprint/12/suppl_2/R279

- A related textbook entry: *Eurekah Bioscience Collection*

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Silencing+Disease+RNA+Interference+AND+179620%5Buid%5D&rid=eurekah.section.14560>

DEEP BRAIN STIMULATION

- Chronic deep brain stimulation of the subgenual cingulate white matter led to clinical response in 4 out of 6 depressed subjects. Table 2 has the main results:

Mayberg HS, Lozano AM, Voon V, McNeely HE, Seminowicz D, Hamani C, Schwalb JM, Kennedy SH.

Deep brain stimulation for treatment-resistant depression. *Neuron*. 2005 Mar 3;45:651-60.

<http://download.neuron.org/pdfs/0896-6273/PIIS089662730500156X.pdf>

- A related article: *Biol Psychiatry*. 2000 Feb 15;47:287-95.

<http://pni.unibe.ch/George.pdf>

- A related textbook entry: *Neuroscience*. V: 29.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=brain+depression+AND+neurosci%5Bbook%5D+AND+232227%5Buid%5D&rid=neurosci.box.2059>

STRESS

- Delayed recall of emotionally arousing words is impaired after social stress in healthy adults. Figure 2 has the main results:

Kuhlmann S, Piel M, Wolf OT. Impaired memory retrieval after psychosocial stress in healthy young men. *J Neurosci*. 2005 Mar 16;25:2977-82.

<http://www.jneurosci.org/cgi/reprint/25/11/2977>

- A related article: *Psychoneuroendocrinology*. 2001 Oct;26:711-20.

http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6TBX-43NPTYM-6-5&_cdi=5154&_user=38557&_orig=search&_coverDate=10%2F31%2F2001&_qd=1&_sk=999739992&_view=c&_wchp=dGLbVzz-zSkWW&_md5=0d46d049c068b86aaf37bdb78d9f69c3&_ie=/sdarticle.pdf

- A related textbook entry: *Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition*. Part 7: 52.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=memory+stress+AND+bnchm%5Bbook%5D+AND+161718%5Buid%5D&rid=bnchm.section.3765#3766>

- *When a stressor is controllable, the rat medial prefrontal cortex inhibits brainstem serotonergic neurons that have been activated by the stress. Figure 4 has the main results:*

Amat J, Baratta MV, Paul E, Bland ST, Watkins LR, Maier SF. Medial prefrontal cortex determines how stressor controllability affects behavior and dorsal raphe nucleus. *Nat Neurosci*. 2005 Mar;8:365-71.

<http://www.nature.com/neuro/journal/v8/n3/pdf/nn1399.pdf>

- *A related article:* *Synapse*. 2003 Sep 1;49:206-8.

<http://www3.interscience.wiley.com/cgi-bin/fulltext/104534494/PDFSTART>

- *A related textbook entry:* *Basic Neurochemistry: Molecular, Cellular and Medical Aspects Sixth Edition*. Part 2: 13.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=+stress+raphe+AND+160446%5Buid%5D&rid=bnchm.section.969#971>

SUBSTANCE ABUSE

- *Family history, opioid use, and psychiatric illness are risk factors for substance use relapse among physicians, in this retrospective cohort study. Table 5 has the main results:*

Domino KB, Hornbein TF, Polissar NL, Renner G, Johnson J, Alberti S, Hankes L. Risk factors for relapse in health care professionals with substance use disorders. *JAMA*. 2005 Mar 23;293:1453-60.

<http://jama.ama-assn.org/cgi/reprint/293/12/1453.pdf>

- *A related article:* *JAMA*. 2000 Oct 4;284:1689-95.

<http://jama.ama-assn.org/cgi/reprint/284/13/1689.pdf>

- *A related textbook entry:* *Health Services/Technology Assessment Text (HSTAT)*. 42: Appendix F.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Risk+Factors+Relapse+Substance+Use+Disorders+AND+330691%5Buid%5D&rid=hstat5.section.76678#76679>

- *This review explains addiction in terms of altered G-protein signaling and increased synaptic transmission in the glutamate projection from the frontal cortex to the nucleus accumbens. Figure 1 summarizes the theory:*

Kalivas PW, Volkow N, Seamans J. Unmanageable motivation in addiction: a pathology in prefrontal-accumbens glutamate transmission. *Neuron*. 2005 Mar 3;45:647-50.

<http://download.neuron.org/pdfs/0896-6273/PIIS0896627305001212.pdf>

- *A related article:* *Ann N Y Acad Sci*. 1999 Jun 29;877:157-75.

<http://www.annalsnyas.org/cgi/reprint/877/1/157>

- *A related textbook entry:* *Health Services/Technology Assessment Text (HSTAT)*. 33: chapter 2.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=Addiction+++Accumbens+++AND+326767%5Buid%5D&rid=hstat5.section.57619#57622>

DEPRESSION

- *This review suggests the neural network hypothesis of depression is better than the monoamine hypothesis. The network hypothesis is summarized in Figure 3:*

Castren E. Is mood chemistry? *Nat Rev Neurosci*. 2005 Mar;6:241-6.

http://www.nature.com/cgi-taf/DynaPage.taf?file=/nrm/journal/v6/n3/full/nrm1629_fs.html&filetype=pdf

- *A related article:* *Ann N Y Acad Sci*. 1999 Jun 29;877:383-96.

<http://www.annalsnyas.org/cgi/reprint/877/1/383>

- *A related textbook entry:* *Neuroscience*. V: 29.

<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=depression+neural+network+AND+232240%5Buid%5D&rid=neurosci.section.2058>

PSYCHOLOGY

- *Hearing a song in your head activates different portions of auditory cortex, depending on whether or not there are lyrics. Figure 1 has the results:*

Kraemer DJ, Macrae CN, Green AE, Kelley WM. Musical imagery: sound of silence activates auditory cortex. *Nature*. 2005 Mar 10;434:158.

[http://www.nature.com/cgi-
taf/DynaPage.taf?file=/nature/journal/v434/n7030/full/434158a_fs.html&content_filetype=pdf](http://www.nature.com/cgi-
taf/DynaPage.taf?file=/nature/journal/v434/n7030/full/434158a_fs.html&content_filetype=pdf)
- A related article: Brain Res Brain Res Rev. 2003 Dec;43:231-46.
[http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6SYS-49KHB00-1-
K&_cdi=4842&_user=38557&_orig=search&_coverDate=12%2F31%2F2003&_qd=1&_sk=999569996&
view=c&wchp=dGLbVtz-zSkzk&md5=79c151e4973e088735f5647d295ddb01&ie=/sdarticle.pdf](http://www.sciencedirect.com/science?_ob=MIimg&_imagekey=B6SYS-49KHB00-1-
K&_cdi=4842&_user=38557&_orig=search&_coverDate=12%2F31%2F2003&_qd=1&_sk=999569996&
view=c&wchp=dGLbVtz-zSkzk&md5=79c151e4973e088735f5647d295ddb01&ie=/sdarticle.pdf)
- A related textbook entry: Neuroscience. II: 13.
[http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=s
ound++auditory+cortex++AND+231542%5Buid%5D&rid=neurosci.section.919](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Search&db=books&doptcmdl=GenBookHL&term=s
ound++auditory+cortex++AND+231542%5Buid%5D&rid=neurosci.section.919)

DUKE RESEARCH

SCHIZOPHRENIA

Keefe RS, Eesley CE, Poe MP. Defining a cognitive function decrement in schizophrenia. Biol Psychiatry. 2005 Mar 15;57:688-91.

DEPRESSION

Arean PA, Ayalon L, Hunkeler E, Lin EH, Tang L, Harpole L, Hendrie H, Williams JW Jr, Unutzer J. Improving Depression Care for Older, Minority Patients in Primary Care. Med Care. 2005 Apr;43:381-390.

SUBSTANCE ABUSE

White AM, Swartzwelder HS. Age-related effects of alcohol on memory and memory-related brain function in adolescents and adults. Recent Dev Alcohol. 2005;17:161-76.

CHILD

March JS. Authors of TADS study reply to letter raising concerns. BMJ. 2005 Mar 26;330:730-1.

END OF LIFE

Keefe FJ, Ahles TA, Sutton L, Dalton J, Baucom D, Pope MS, Knowles V, McKinstry E, Furstenberg C, Syrjala K, Waters SJ, McKee D, McBride C, Rumble M, Scipio C. Partner-Guided Cancer Pain Management at the End of Life: A Preliminary Study. J Pain Symptom Manage. 2005 Mar;29:263-272.

GERIATRICS

Taylor DH Jr. Alzheimer's disease and the family caregiver: the cost and who pays? N C Med J. 2005 Jan-Feb;66:16-23.

Jordan LE. Grieving the living! N C Med J. 2005 Jan-Feb;66:34-6.

Gwyther LP. Family care and Alzheimer's disease: what do we know? What can we do? N C Med J. 2005 Jan-Feb;66:37-40, 42.

PSYCHOLOGY

Shafritz KM, Kartheiser P, Belger A. Dissociation of neural systems mediating shifts in behavioral response and cognitive set. Neuroimage. 2005 Apr 1;25:600-6.