

10 Literatur

Adams JM, Cory S. The bcl-2 protein family: arbiters of cell survival. *Science* 1998; 281: 1322-1326.

Addington J, Addington D. Attentional vulnerability indicators in schizophrenia and bipolar disorder. *Schizophr Res* 1997; 23(3): 197-204.

Ahrens B, Berghofer A, Wolf T, Müller-Oerlinghausen B. Suicide attempts, age and duration of illness in recurrent affective disorders. *J Affect Disord* 1995; 36(1-2): 43-49.

Albus M, Hubmann W, Wahlheim C, Sobizack N, Franz U, Mohr F. Contrasts in neuropsychological test profile between patients with first-episode schizophrenia and first-episode affective disorder. *Acta Psychiatr Scand* 1996; 94(2): 87-93.

Alexopoulos GS, Meyers BS, Young RC, Mattis S, Kakuma T. The course of geriatric depression with "reversible dementia": a controlled study. *Am J Psychiatry* 1993; 150(11): 1693-1699.

Ali SO, Denicoff KD, Altshuler LL, et al. A preliminary study of the relation of neuropsychological performance to neuroanatomic structures in bipolar disorder. *Neuropsychiatry, Neuropsychol Behav Neurol* 2000; 13: 20-28.

Altamura CA, Mauri MC, Ferrara A, Moro AR, D'Andrea G, Zamberlan F. Plasma and platelet excitatory amino acids in psychiatric disorders. *Am J Psychiatry* 1993; 150(11):1731-3.

Altman J, Das GD. Postnatal neurogenesis in the guinea pig. *Nature* 1967; 214(93): 1098-1101.

Altshuler LL, Bartzokis G, Grieder T, et al. An MRI study of temporal lobe structures in men with bipolar disorder or schizophrenia. *Biol Psychiatry* 2000; 48(2): 147-162.

Altshuler LL, Conrad A, Hauser P, Li XM, Guze BH, Denikoff K. Reduction of temporal lobe volume in bipolar disorder: A preliminary report of magnetic resonance imaging. *Arch Gen Psychiatry* 1991; 48: 482-483.

Alvarez G, Munoz-Montano JR, Satrustegui J, Avila J, Bogonez E, Diaz-Nido J. Regulation of tau phosphorylation and protection against β -amyloid-induced neurodegeneration by lithium. Possible implications for Alzheimer's disease. *Bipolar Disord* 2002, 4: 153-165.

Alvarez G, Munoz-Montano JR, Satrustegui J, Avila J, et al. Lithium protects cultured neurons against beta-amyloid-induced neurodegeneration. *FEBS Lett* 1999; 453: 260-264.

Ashburner J, Friston K. Voxel-based morphometry- the methods. *Neuroimage* 2000; 11(6Pt1): 805-821.

Ashburner J, Friston K. Multimodal image coregistration and partitioning- a unified framework. *Neuroimage* 1997; 6(3): 209-217.

Atre-Vaidya N, Taylor MA, Seidenberg M, Reed R, Perrine A, Glick-Oberwise F. Cognitive deficits, psychopathology and psychosocial functioning in bipolar mood disorder. *Neuropsychiatry, Neuropsychol Behav Neurol* 1998; 11: 120-126.

Auer DP, Putz B, Kraft E, Lipinski B, Schill J, Holsboer F. Reduced glutamate in the anterior cingulate cortex in depression: an in vivo proton magnetic resonance spectroscopy study. *Biol Psychiatry* 2000; 47(4): 305-13.

Baastrup PC, Poulsen JC, Schou M, Thomson K, Amdisen A. Prophylactic lithium: double blind discontinuation in manic-depressive and recurrent- depressive disorder. *Lancet* 1970; 2(7668): 326-330.

Baastrup, PC. The use of lithium salts in manic-depressive disorder. *Compr Psychiatry* 1964; 10: 396-408.

Baldessarini RJ, Tondo T, Viguera AC. Discontinuing lithium maintenance treatment in bipolar disorders: risks and implications. *Bipolar Disord* 1999; 1(1): 17-24.

Barden N, Reul JM, Holsboer F. Do antidepressants stabilize mood through actions on the hypothalamic-pituitary-adrenocortical system? *Trends Neurosci* 1995; 18(1): 6-11.

Baslow MH. N-acetylaspartate in the vertebrate brain: metabolism and function. *Neurochem Res* 2003; 28(6): 941-53.

Belanoff JK, Kalehzan M, Suind B, Fleming Ficek SK, Schatzberg AF. Cortisol activity and cognitive changes in psychotic major depression. *Am J Psychiatry* 2001; 158(10): 1612-1616.

Belsham B. Role of glutamate in psychiatric illness. *Hum Psychopharmacol Clin* 2001; Exp 16: 139-146.

Benedict RHB. Brief visuospatial memory test-Revised. Psychological assesment resources, Inc., 1988.

Benes FM, Kwok EW, Vincent SL, Todtenkopf MS. A reduction of nonpyramidal cells in sector CA2 of schizophrenics and manic depressives. *Biol Psychiatry* 1998; 44(2):88-97.

Berman RM, Cappiello A, Anand A, Oren DA, Heninger GR, Charney DS, Krystal JH. Antidepressant effects of ketamine in depressed patients. *Biol Psychiatry* 2000; 47(4): 351-354.

Bertolino A, Frye M, Callicott JH, et al. Neuronal pathology in the hippocampal area of patients with bipolar disorder: a study with proton magnetic resonance spectroscopic imaging. *Biol Psychiatry* 2003; 53: 906-913.

Birbaumer N, Schmidt RF. Lernen und Gedächtnis. In: Schmidt RF, Thews G (Hrsg.). *Physiologie des Menschen*. 28. Aufl., Berlin, Heidelberg, New York: Springer-Verlag, 2000: 154-166.

Blaha L, Pater W. Zur Stabilität und Wiederholbarkeit (Reliabilität) des Intelligenz-Kurztestes MWT-B bei Langzeithospitalisierung. *Nervenarzt* 1979; 50: 196-198.

Blasi G, Bertolino A, Brudaglio F, et al. Hippocampal neurochemical pathology in patients at first episode of affective psychosis: a proton magnetic resonance spectroscopic imaging study. *Psychiatry Res* 2004; 131: 95-105.

Board F, Wadeson R, Persky H. Depressive affect and endocrine functions; blood levels of adrenal cortex and thyroid hormones in patients suffering from depressive reactions. *AMA Arch Neurol Psychiatry* 1957; 78(6): 612-620.

Bowden CL, Calabrese JR, Sachs G, et al. A placebo-controlled 18-month trial of lamotrigine and lithium maintenance treatment in recently manic or hypomanic patients with bipolar I disorder. *Arch Gen Psychiatry* 2003; 60(4): 392-400.

Bowen D. The cholinergic system and the excitatory amino acids in Alzheimer's disease. *Acta Neurol Scand Suppl.* 1990; 129: 15-6.

Bowley MP, Drevets WC, Ongur D, Price JL. Low glial numbers in the amygdala in major depressive disorder. *Biol Psychiatry* 2002; 52(5): 404-12.

Bremner JD, Narayan M, Anderson ER, Staib LH, Miller HL, Charney DS. Hippocampal volume reduction in major depression. *Am J Psychiatry* 2000; 157(1): 115-8.

Carli M, Reader TA. Regulation of central serotonin transporters by chronic lithium: an autoradiographic study. *Synapse* 1997; 27(1): 83-89.

Carroll BJ. The dexamethasone suppression test for melancholia. *Br J Psychiatry* 1982; 140: 292-304 .

Cassidy F, Ritchie JC, Carroll BJ. Plasma dexamethasone concentration and cortisol response during manic episodes. *Biol Psychiatry* 1998; 43(10): 747-54.

Castillo M, Kwock L, Courvoisie H, Hooper SR. Proton MR spectroscopy in children with bipolar affective disorder: preliminary observations. *AJNR Am J Neuroradiol* 2000 ; 21: 832-838.

Cavanagh JT, Van Beck M, Muir W, Blackwood DH. Case-control study of neurocognitive function in euthymic patients with bipolar disorder: an association with mania. *Br J Psychiatry* 2002; 180: 320-326.

Cecil KM, DelBello MP, Morey R, Strakowski SM. Frontal lobe differences in bipolar disorder as determined by proton MR spectroscopy. *Bipolar Disord* 2002; 4(6): 357-65.

Cervantes P, Gelber S, Kin FN, Nair VN, Schwartz G. Circadian secretion of cortisol in bipolar disorder. *J Psychiatry Neurosci* 2001; 26(5): 411-6.

Chang K, Adleman N, Dienes K, Barnes-Goraly N, Reiss A, Ketter T. Decreased N-Acetylaspartate in children with familial bipolar disorder. *Biol Psychiatry* 2003; 53(11): 1059-1065.

Chen G, Rajkowska G, Du F, Seraji-Bozorgzad N, Manji HK. Enhancement of hippocampal neurogenesis by lithium. *J Neurochem* 2000; 75: 1729-1734.

Chen G, Zeng WZ, Yuan PX, et al. The mood-stabilizing agents lithium and valproate robustly increase the levels of the neuroprotective protein bcl-2 in the CNS. *J Neurochem* 1999; 72: 879-882.

Chen RW, Chuang DM. Long term lithium treatment suppresses p53 and bax expression but increases bcl-2 expression. A prominent role in neuroprotection against excitotoxicity. *J Biol Chem* 1999; 274(10): 6039-6042.

Chen DF, Schneider GE, Martinou JC, Tonegawa S. Bcl-2 promotes regeneration of severed axons in mammalian CNS. *Nature* 1997; 385: 434-439.

Clark L, Iversen SD, Goodwin GM. Sustained attention deficit in bipolar disorder. *Br J Psychiatry* 2002; 180: 313-319.

Coffman JA, Bornstein RA, Olson SC, Schwarzkopf SB, Nasrallah HA. Cognitive impairment and cerebral structure by MRI in bipolar disorder. *Biol Psychiatry* 1990; 27(11): 1188-1196.

Colla M, Deuschle M, Meichel, K, Hagen T, Kronenberg G, Heuser I. Hippocampal volume reduction and HPA-system activity in major depression. Eingereicht.

Corkin S, Amaral DG, Gonzalez RG, Johnson KA, Hyman BT. H.M.'s medial temporal lobe lesion: findings from magnetic resonance imaging. *J Neurosci* 1997; 17(19): 3964-3979.

Cotter D, Mackay D, Chana G, Beasley C, Landaun S, Overall IP. Reduced neuronal size and glial cell density in area 9 of the dorsolateral prefrontal cortex in subjects with major depressive disorder. *Cereb Cortex* 2002; 12(4): 386-394.

Dager SR, Friedman SD, Parow A, Demopoulos C, Stoll AL, Lyoo IK, Dunner DL, Renshaw PF. Brain metabolic alterations in medication-free patients with bipolar disorder. *Arch Gen Psychiatry* 2004; 61: 450-458.

Danielsen ER, Henriksen O. Absolute quantitative Proton NMR spectroscopy based on the amplitude of the local water suppression pulse. Quantification of brain water and metabolites. *NMR Biomed* 1994; 7(7): 311-318.

Davanzo P, Thomas MA, Yue K. Decreased anterior cingulate myo-inositol/creatine spectroscopy resonance with lithium treatment in children with bipolar disorder. *Neuropsychopharmacology* 2001; 24: 359-369.

Davanzo P, Yue K, Thomas MA, et al. Proton magnetic resonance spectroscopy of bipolar disorder versus intermittent explosive disorder in children and adolescents. *Am J Psychiatry* 2003; 160(8): 1442-52.

Deicken RF, Pegues MP, Anzalone S, Feiwell R, Soher B. Lower concentration of hippocampal N-acetylaspartate in familial bipolar I disorder. *Am J Psychiatry* 2003; 160: 873-882.

Deicken RF, Eliaz Y, Feiwell R, Schuff N. Increased thalamic N-acetylaspartate in male patients with familial bipolar I disorder. *Psychiatry Res* 2001; 106: 35-45.

De Kloet ER, Vreugdenhil E, Oitzl MS, Joels M. Brain corticosteroid receptor balance in health and disease. *Endocr Rev* 1998; 19: 269-301.

Deuschle M, Weber B, Colla M, Müller M, Kniest A, Heuser I. Mineralocorticoid receptor also modulates basal activity of hypothalamus-pituitary-adrenocortical system in humans. *Neuroendocrinology* 1998; 68: 355-360.

Deuschle M, Schweiger U, Weber B, et al. Diurnal activity and pulsatility of the hypothalamus-pituitary-adrenal system in male depressed patients and healthy controls. *J Clin Endocrinol Metab* 1997; 82(1): 234-238.

Dixon JF, Hokin LE. Lithium acutely inhibits and chronically up-regulates and stabilizes glutamate uptake by presynaptic nerve endings in mouse cerebral cortex. *Proc Natl Acad Sci U S A*. 1998; 95(14): 8363-8368.

Doig RJ, Mummery RV, Willis MR, Elkes A. Plasma cortisol levels in depression. *Br J Psychiatry* 1966; 112(493): 1263-1267.

Dörner K. *Klinische Chemie und Hämatologie*. 3. Aufl., Ferdinand Enke Verlag Stuttgart, 1999: 34-35.

Drevets WC, Price JL, Simpson JR Jr, et al. Subgenual prefrontal cortex abnormalities in mood disorders. *Nature* 1997; 386(6627):824-827.

DSM-IV. *Diagnostic and Statistical Manual of Mental Disorders – Fourth Edition*. American Psychiatric Association, Washington D. C., 1994.

Dunner DL, Stallone F, Fieve RR. Lithium carbonate and affective disorders. V: A double-blind study of prophylaxis of depression in bipolar illness. *Arch Gen Psychiatry* 1976; 33(1): 117-120.

Eichenbaum H, Schoenbaum G, Young B, Bunsey M. Functional organization of the hippocampal memory system. *Proc Natl Acad Sci USA* 1996; 93(24): 13500-13507.

El-Badri SM, Ashton CH, Moore PB, Marsh VR, Ferrier IN. Electrophysiological and cognitive function in young euthymic patients with bipolar affective disorder. *Bipolar Disord* 2001; 3: 79-87.

El Khoury A, Tham A, Mathe AA, Aberg-Wistedt A, Stain-Malmgren R. Decreased plasma prolactin release in euthymic lithium-treated women with bipolar disorder. *Neuropsychobiology* 2003; 48(1): 14-18.

Elster C, Link A, Schubert F, Seifert F, Walzel M, Rinneberg H. Quantitative MRS: comparison of time domain and time domain frequency domain methods using a novel test procedure. *Magn Reson Imaging* 2000; 18(5): 597-606.

Engelsmann F, Katz J, Ghadirian AM, Schachter D. Lithium and memory: a long-term follow-up study. *J Clin Psychopharmacol* 1988; 8(3): 207-212.

Eriksson PS, Perfilieva E, Bjork-Eriksson T, et al. Neurogenesis in the adult human hippocampus. *Nat Med* 1998; 4(11): 1313-1317.

Evans DL, Nemeroff CB The dexamethasone suppression test in mixed bipolar disorder. *Am J Psychiatry* 1983; 140: 615-617.

Felber W, Thau K. Affektive Störungen. In: Gastpar MT, Kasper S, Linden M, hrsg. *Psychiatrie*. 2. Auflage, Springer Verlag Wien, New York, 2003: 117-149.

Ferrier IN, Thompson JM. Cognitive impairment in bipolar affective disorder: implications for the bipolar diathesis. *Br J Psychiatry* 2002; 180: 293-295.

Ferrier IN, Stanton BR, Kelly TP, Scott J. Neuropsychological function in euthymic patients with bipolar disorder. *Br J Psychiatry* 1999; 175: 246-251.

Fischer P, Bailer U, Hilger E, Leitner I. Depressive Pseudodemenzen. *Wien Med Wochenschr* 2002; 152(3-4): 62-65.

Fischer P. The spectrum of depressive pseudo-dementia. *J Neural Transm* 1996 ; Suppl 47: 193-203.

Fossati P, Harvey PO, Le Bastard G, Ergis AM, Jouvent R, Allilaire JF. Verbal memory performance of patients with a first depressive episode and patients with unipolar and bipolar recurrent depression. *J Psychiatr Res* 2004; 38(2): 137-144.

Foy MR, Stanton ME, Levine S, Thompson RF. Behavioral stress impairs long-term potentiation in rodent hippocampus. *Behav Neural Biol* 1987; 48(1): 138-149.

Friedman S, Dager SR, Parow A, et al. Lithium and valproic acid treatment effects on brain chemistry in bipolar disorder. *Biol Psychiatry* 2004; 56(5): 340-348.

Frodl T, Meisenzahl EM, Zetsche T, et al. Hippocampal changes in patients with a first episode of major depression. *Am J Psychiatry* 2002; 159: 1112-1118.

Fukumoto T, Morinobu S, Okamoto Y, Kagaya A, Yamawaki S. Chronic lithium treatment increases the expression of brain-derived neurotrophic factor in the rat brain. *Psychopharmacology* 2001; 158: 100-106.

Galard T. Plasma corticotropin-releasing factor in depressed patients before and after the dexamethasone suppression test. *Biol Psychiatry* 2002; 51(6): 463-468.

Goldman SA, Nottebohm F. Neuronal production, migration, and differentiation in a vocal control nucleus of the adult female canary brain. *Proc Natl Acad Sci U S A* 1983; 80(8):2390-2394.

Goodwin FK, Jamison KR. *Manic-depressive illness*. New York: Oxford University press, 1990.

Gottesfeld Z. Effect of lithium and other alkali metals on brain chemistry and behavior. *Psychopharmacologia (Berl.)* 1976; 45: 239-242.

Halmi KA, Noyes R Jr, Millard SA. Effect of lithium on plasma cortisol and adrenal response to adrenocorticotropin in man. *Clin Pharmacol Ther* 1972; 13(5): 688-703.

- Hamakawa H, Kato T, Shioiri T, Inubushi T, Kato N. Quantitative proton magnetic resonance spectroscopy of the bilateral frontal lobes in patients with bipolar disorder. *Psychol Med* 1999; 29: 639-644.
- Hamilton M. Development of a rating scale for primary depressive illness. *Br J Soc Clin Psychol* 1960; 6: 278-296.
- Harmer CJ, Clark L, Grayson L, Goodwin GM. Sustained attention deficit in bipolar disorders is not a working memory impairment in disguise. *Neuropsychologia* 2002; 40(9): 1586-1590.
- Hartigan, GP. The use of lithium salts in affective disorders. *Br J Psychiatry* 1963; 109: 810-814.
- Hashimoto R, Senatorov V, Kanai H, Leeds P, Chuang DM. Lithium stimulates progenitor proliferation in cultured brain neurons. *Neuroscience* 2003; 117(1): 55-61.
- Hashimoto R, Takei N, Shimazu K, Christ L, Lu B, Chuang DM. Lithium induces brain-derived neurotrophic factor and activates TrkB in rodent cortical neurons: an essential step for neuroprotection against glutamate excitotoxicity. *Neuropharmacology* 2002; 43(7): 1173-1179.
- Heffner M et al. Tutorial: Intelligenz. Lern/Lehrmaterialien (Accessed December 4, 2005, at http://www.prometheus.uni-tuebingen.de/player/document.jsp?_document).
- Heuser I. Anna-Monika-Prize paper. The hypothalamic-pituitary-adrenal system in depression. *Pharmacopsychiatry* 1998; 31(1): 10-13.
- Heuser I, Bissette G, Dettling M, et al. Cerebrospinal fluid concentrations of corticotropin-releasing hormone, vasopressin, and somatostatin in depressed patients and healthy controls: response to amitriptyline treatment. *Depress Anxiety* 1998; 8(2): 71-79.
- Heuser I, Yassouridis A, Holsboer F. The combined dexamethasone/CRH test: a refined laboratory test for psychiatric disorders. *J Psychiatr Res* 1994; 28(4): 341-356.
- Hill CD, Stoudemire A, Morris R, Martino-Saltzman D, Markwalter HR. Similarities and differences in memory deficits in patients with primary dementia and depression-related cognitive dysfunction. *J Neuropsychiatry Clin Neurosci* 1993; 5(3): 277-282.
- Hilton M, Middleton G, Davies AM. Bcl-2 influences axonal growth rate in embryonic sensory neurons. *Curr Biol* 1997; 7: 798-800.
- Hirayasu Y, Shenton ME, Salisbury DF. Lower left temporal lobe MRI volumes in patients with first-episode schizophrenia compared with psychotic patients with first-episode affective disorder and normal subjects. *Am J Psychiatry* 1998; 155: 1384-1391.
- Holden C. Excited by glutamate. *Science* 2003; 300: 1866-1868.
- Holsboer F. The corticosteroid receptor hypothesis of depression. *Neuropsychopharmacology* 2000; 23: 477-501.

- Holsboer F, Spengler D, Heuser I. The role of corticotropin-releasing hormone in the pathogenesis of Cushing's disease, anorexia nervosa, alcoholism, affective disorders and dementia. *Prog Brain Res* 1992; 93: 385-417.
- Horn W. Leistungsprüfsystem LPS. Handanweisung. 2. Auflage, Verlag für Psychologie, Göttingen, Hogrefe, 1983.
- Höschl C, Hajek T. Hippocampal damage mediated by corticosteroids- a neuropsychiatric research challenge. *Eur Arch Psychiatry Clin Neurosci* 2001; 251: Suppl 2: II81-II88.
- ICD-10. International Classification of Diseases. World Health Organization, 1211 Genf 27, Schweiz, 1998.
- Jacobs BL. Adult brain neurogenesis and depression. *Brain Behav Immun* 2002; 16(5): 602-609.
- Jamison K. Suicide and bipolar disorder. *J Clin Psychiatry* 2000; 61 (suppl 9): 47-51.
- Joffe RT, MacDonald C, Kutcher SP. Lack of differential cognitive effects of lithium and carbamazepine in bipolar affective disorder. *J Clin Psychopharmacol* 1988; 8(6): 425-428.
- Jones BP, Duncan CC, Mirsky AF, Post RM, Theodore WH. Neuropsychological profiles in bipolar affective disorder and complex partial seizure disorder. *Neuropsychology* 1994; 8(1): 55-64.
- Jope, RS. Anti-bipolar therapy: mechanism of action of lithium. *Mol Psychiatry* 1999; 4: 117-128.
- Kempermann G. Regulation of adult hippocampal neurogenesis - implications for novel theories of major depression. *Bipolar Disord* 2002; 4(1): 17-33.
- Kempermann G, Gage FH. New nerve cells for the adult brain. *Sci Am* 1999; 289(5): 48-53.
- Kessing V. Cognitive impairment in the euthymic phase of affective disorder. *Psychol Med* 1998; 28: 1027-1038.
- Kim JS, Schmid-Burgk W, Claus D, Kornhuber HH. Increased serum glutamate in depressed patients. *Arch Psychiatr Nervenkr* 1982; 232(4): 299-304.
- Kirschbaum C, Wolf OT, May M, Wippich W, Hellhammer DH. Stress- and treatment-induced elevations of cortisol levels associated with impaired declarative memory in healthy adults. *Life Sci* 1996; 58(17): 1475-1483.
- Kleindienst, Greil. Inter-episodic morbidity and drop-out under carbamazepine and lithium in the maintenance treatment of bipolar disorder. *Psychol Med* 2002; 32(3): 493-501.
- Klemfuss H, Schrauzer GN. Effects of nutritional lithium deficiency on behavior in rats. *Biol Trace El Res* 1995; 48: 131-139.
- Kocsis JH, Shaw ED, Stokes PE, et al. Neuropsychologic effects of lithium discontinuation. *J Clin Psychopharmacol* 1993; 13(4): 268-275.

Krystal JH, Sanacora G, Blumberg H, et al. Glutamate and GABA systems as targets for novel antidepressant and mood-stabilizing treatments. *Mol Psychiatry* 2002; 7 Suppl 1: S71-80.

Landfield PW. Nathan shock memorial lecture 1990. The role of glucocorticoids in brain aging and Alzheimer's disease: an integrative physiological hypothesis. *Exp Gerontol* 1990; 29(1): 3-11.

Landfield PW, Baskin RK, Pitler TA. Brain aging correlates: retardation by hormonal-pharmacological treatments. *Science* 1981; 214(4520): 581-584.

Landfield PW, Waymire JC, Lynch G. Hippocampal aging and adrenocorticoids: quantitative correlations. *Science* 1978; 202(4372): 1098-1102.

Lee AL, Ogle WO, Sapolsky RM. Stress and depression: possible links to neuron death in the hippocampus. *Bipolar Disord* 2002; 4(2): 117-128.

Lehrl S. Mehrfachwahl-Wortschatz-Intelligenztest MWT-B. Erlangen: Perimed 1989.

Levine S, Saltzman A, Klein AW. Proliferation of glial cells in vivo induced in the neural lobe of the rat pituitary by lithium. *Cell Prolif* 2000; 33(4): 203-207.

Lim KO, Rosenbloom MJ, Faustman WO, Sullivan EV, Pfefferbaum A. *Schizophr Res* 1999; 40(3): 219-227.

Linkowski P., Van Onderbergen A, Kerkhofs M, Bosson D, Mendlewicz J, Van Cauter E. Twin study of the 24-h cortisol profile: evidence for genetic control of the human circadian clock. *Am J Physiol* 1993; 264: E173-181.

Lipton SA, Rosenberg PA. Excitatory amino acids as a final common pathway for neurologic disorders. *The New England J Med* 1994; 330 (9): 613-622.

Lund Y, Nissen M, Rafaelsen OJ. Long-term lithium treatment and psychological functions. *Acta Psychiatr Scand* 1982; 65(3): 233-244.

Lupien SJ, de Leon M, de Santi S, et al. Cortisol levels during human aging predict hippocampal atrophy and memory deficits. *Nat Neurosci* 1998; 1(1): 69-73.

Madden JJ, Luhan JA, Kaplan LA, Manfredi HM. Nondementing psychosis in older persons. *J Am Med Assoc* 1952; 150: 1567-1572.

Magistretti PJ, Pellerin J, Rothman DL, Shulman RG. Energy on demand. *Science* 1999; 283(5401): 496-497.

Manji HK, Moore GJ, Chen G. Lithium up-regulates the cytoprotective protein bcl-2 in the CNS in vivo: a role for neurotrophic and neuroprotective effects in manic-depressive illness. *J Clin Psychiatry* 2000; 61 (suppl 9): 82-96.

Manji HK, Quiroz JA, Sporn J, et al. Enhancing neuronal plasticity and cellular resilience to develop novel, improved therapeutics for difficult-to-treat depression. *Biol Psychiatry* 2003; 53(8): 707-742.

- Marcus SR, Nadiger HA, Chandrakala MV, Rao TI, Sadasivudu B. Acute and short-term effects of lithium on glutamate metabolism in rat brain. *Biochem Pharmacol* 1986; 35(3): 365-369.
- Martinez-Aran A, Vieta E, Reinares M, et al. Cognitive function across manic or hypomanic, depressed and euthymic states in bipolar disorder. *Am J Psychiatry* 2004; 161: 262-270.
- Martinez-Aran A, Vieta E, Colom F, et al. Neuropsychological performance in depressed and euthymic bipolar patients. *Neuropsychobiology* 2002; 46(suppl 1): 16-21.
- Mauri MC, Ferrara A, Boscati L, et al. Plasma and platelet amino acid concentrations in patients affected by major depression and under fluvoxamine treatment. *Neuropsychobiology* 1998; 37(3): 124-129.
- McEachron DL, Kripke DF, Hawkins R, Haus E, Pavlinac D, Deftos L. Lithium delays biochemical circadian rhythms in rats. *Neuropsychobiology* 1982; 8(1): 12-29.
- Meldrum B, Garthwaite J. Excitatory amino acid neurotoxicity and neurodegenerative disease. *Trends Pharmacol Sci* 1990; 11(9): 379-87.
- Metzler P, Haas W, Potel C. Gedächtnisstörungen nach unilateralen zerebralen Läsionen. *Nervenarzt* 2002; 73: 355-363.
- Michael N, Erfurth A, Ohrmann P, et al. Acute mania is accompanied by elevated glutamate/glutamine levels within the left dorsolateral prefrontal cortex. *Psychopharmacology* 2003a; 168: 344-346.
- Michael N, Erfurth A, Ohrmann P, Arolt V, Heindel W, Pfeleiderer B. Neurotrophic effects of electroconvulsive therapy: a proton magnetic resonance study of the left amygdalar region in patients with treatment-resistant depression. *Neuropsychopharmacology* 2003b; 28(4): 720-725.
- Milner B, Squire LR, Kandel ER. Cognitive neuroscience and the study of memory. *Neuron* 1998; 20(3): 445-468.
- Mirza Y, Tang J, Russell A, et al. Reduced anterior cingulate cortex glutamatergic concentration in childhood major depression. *J Am Acad Child Adolesc Psychiatry* 2004; 43 (3): 341-348.
- Mishkin M, Spiegler BJ, Saunders RC, Malamut BL. An animal model of global amnesia. In: Corkin S, Davis KL, Growden JH, Usdin E, Wurtman RJ, eds. *Alzheimer's disease: a review of progress*. New York: Raven press, 1982: 235-247.
- Moore GJ, Bechuk JM, Hasanat K, et al. Lithium increases N-acetyl-aspartate in the human brain: in vivo evidence in support of bcl-2's neurotrophic effects? *Biol Psychiatry* 2000a; 48:1-8.
- Moore GJ, Bechuk JM, Wilds IB, Chen G, Manji HK. Lithium-induced increase in human brain grey matter. *Lancet* 2000b; 356: 1241-1242.
- Mühlbauer HD, Müller-Oerlinghausen B. Fenfluramine stimulation of cortisol in patients with major affective disorders and healthy controls: further evidence for a central serotonergic action of lithium in man. *J Neural Transm* 1985; 61(1-2): 81-94.

Müller-Oerlinghausen B, Berghofer A, Bauer M. Bipolar Disorder. *Lancet* 2002; 359 (9302): 241-247.

Müller-Oerlinghausen B, Ahrens B, Grof E, et al. The effect of long-term lithium treatment on the mortality of patients with manic-depressive and schizoaffective illness. *Acta Psychiatr Scand* 1992; 86(3): 218-222.

Nadel L, Moscovitch M. Memory consolidation, retrograde amnesia and the hippocampal complex. *Curr Opin Neurobiol* 1997; 7(2): 217-227.

Nemeroff CB, Widerlov E, Bissette G, et al. Elevated concentrations of CSF corticotropin-releasing factor-like immunoreactivity in depressed patients. *Science* 1984; 226(4680): 1342-1344.

Newcomer JW, Selke G, Melson AK, et al. Decreased memory performance in healthy humans induced by stress-level cortisol treatment. *Arch Gen Psychiatry* 1999; 56(6): 527-533.

Newcomer JW, Craft S, Hershley T, Askins K, Bardgett ME. Glucocorticoid-induced impairment in declarative memory performance in adult humans. *J Neurosci* 1994; 14(4): 2047-2053.

Nonaka S, Chuang DM. Neuroprotective effects of chronic lithium on focal cerebral ischemia in rats. *Neuroreport* 1998; 9: 2081-2084.

Nonaka S, Hough CJ, Chuang DM. Chronic lithium treatment robustly protects neurons in the central nervous system against excitotoxicity by inhibiting N-methyl-D-aspartate receptor-mediated calcium influx. *Proc Natl Acad Sci USA* 1998; 95: 2642-2647.

Novotny EJ, Fulbright RK, Pearl PL, Gibson KM, Rothman DL. Magnetic resonance spectroscopy of neurotransmitters in human brain. *Ann Neurol* 2003; 54 (suppl 6): S25-S31.

O'Donnell T, Rotzinger S, Ulrich M, Hanstock CC, Nakashima TT, Silverstone PH. Effects of chronic lithium and valproate on concentrations of brain amino acids. *Eur Neuropsychopharmacol* 2003; 13: 220-227.

Oh YJ, Swarzenski BC, O'Malley KL. Overexpression of bcl-2 in a murine dopaminergic neuronal cell line leads to neurite outgrowth. *Neurosci Lett* 1996; 202: 161-164.

Ohara K, Isode H, Suzuki Y, et al. Proton magnetic resonance spectroscopy of the lenticular nuclei in bipolar I affective disorder. *Psychiatry Res* 1998; 84: 55-60.

Ongur D, Drevets WC, Price JL. Glial reduction in the subgenual prefrontal cortex in mood disorders. *Proc Natl Acad Sci U S A* 1998; 95(22):13290-13295 .

Patt, El, Pickett EE, O'Dell BL. Effect of dietary lithium levels on tissue lithium concentrations, growth rate, and reproduction in the rat. *Bioinorganic Chem* 1978; 9: 299-310.

Paul I, Skolnick P. Glutamate and depression: clinical and preclinical studies. *Ann N Y Acad Sci* 2003; 1003: 250-272.

- Petty F, Kramer GL, Fulton M, Davis L, Rush AJ. Stability of plasma GABA at four-year follow-up in patients with primary unipolar depression. *Biol Psychiatry* 1995; 37(11):806-810.
- Pfleiderer B, Michael N, Erfurth A, et al. Effective electroconvulsive therapy reverses glutamate/glutamine deficit in the left anterior cingulum of unipolar depressed patients. *Psychiatry Res* 2003; 122(3): 185-192.
- Phiel CJ, Wilson CA, Lee VMY, Klein PS. GSK-3 α regulates production of Alzheimer's disease amyloid- β peptides. *Nature* 2003; 423: 435-439.
- Pilcher HR. Drug research: the ups and downs of lithium. *Nature* 2003; 425(6954): 118-120.
- Posner MI, Peterson SE. The attention system of the human brain. *Ann Rev Neurosci* 1990; 13: 25-42.
- Raadsheer FC, van Heerikhuizen JJ, Lucassen PJ, Hoogendijk WJ, Tilders FJ, Swaab DF. Corticotropin-releasing hormone mRNA levels in the paraventricular nucleus of patients with Alzheimer's disease and depression. *Am J Psychiatry* 1995; 152(9): 1372-1376.
- Rajkowska G. Histopathology of the prefrontal cortex in major depression: what does it tell us about dysfunctional monoaminergic circuits? *Prog Brain Res* 2000a; 126: 397-412.
- Rajkowska G. Postmortem studies in mood disorders indicate altered numbers of neurons and glial cells. *Biol Psychiatry* 2000b; 48: 766-777.
- Rajkowska G, Miguel-Hidalgo JJ, Wei J, et al. Morphometric evidence for neuronal and glial prefrontal cell pathology in major depression. *Biol Psychiatry* 1999; 45: 1085-1098.
- Ransom BR, Sontheimer H. The neurophysiology of glial cells. *J Clin Neurophysiol* 1992; 9: 224-251.
- Ratka A, Sutanto W, Bloemers M, de Kloet ER. On the role of brain mineralocorticoid (type I) and glucocorticoid (type II) receptors in neuroendocrine regulation. *Neuroendocrinology* 1989; 50: 117-123.
- Rempel-Clower NL, Zola SM, Squire LR, Amaral DG. Three cases of enduring memory impairment after bilateral damage limited to the hippocampal formation. *J Neurosci* 1996; 16(16): 5233-5255.
- Reul JM, Labeur MS, Grigoriadis DE, De Souza EB, Holsboer F. Hypothalamic-pituitary-adrenocortical axis changes in the rat after long-term treatment with the reversible monoamine oxidase-A inhibitor moclobemide. *Neuroendocrinology* 1994; 60(5): 509-519.
- Reul JM, Stec I, Soder M, Holsboer F. Chronic treatment of rats with the antidepressant amitriptyline attenuates the activity of the hypothalamic-pituitary-adrenocortical system. *Endocrinology* 1993; 133(1): 312-320.
- Reul JM, de Kloet ER. Two receptor system for corticosterone in rat brain: microdistribution and differential occupation. *Endocrinology* 1985; 117: 2505-2511.

- Reus VI, Targum SD, Weingarter H, Post RM. Effect of lithium carbonate on memory processes of bipolar affectively ill patients. *Psychopharmacology (Berl)* 1979; 63(1): 39-42.
- Roberts A, Wessely S, Chalder T, Papadopoulos A, Cleare A. Salivary cortisol response to awakening in chronic fatigue syndrome. *Br J Psychiatry* 2004; 184: 136-141.
- Rubinow DR, Post RM, Savard R, Gold PW. Cortisol hypersecretion and cognitive impairment in depression. *Arch Gen Psychiatry* 1984; 41(3): 279-283.
- Rubinsztein JS, Michael A, Paykel ES, Sahakian BJ. Cognitive impairment in remission in bipolar affective disorder. *Psychol Med* 2000; 30: 1025-1036.
- Sanacora G, Gueorguieva R, Epperson CN, et al. Subtype-specific Alterations of γ -aminobutyric acid and glutamate in patients with major depression. *Arch Gen Psychiatry* 2004; 61: 705-713.
- Sanacora G, Rothman DL, Mason G, Krystal JH. Clinical studies implementing neurotransmission in mood disorders. *Ann N Y Acad Sci* 2003; 1003: 292-308.
- Sanacora G, Mason GF, Rothman DL, et al. Reduced cortical γ -aminobutyric acid levels in depressed patients determined by proton magnetic spectroscopy. *Arch Gen Psychiatry* 1999; 56: 1043-1047.
- Sapolsky RM. Glucocorticoids and hippocampal atrophy in neuropsychiatric disorders. *Arch Gen Psychiatry* 2000; 57(10): 925-935.
- Sapolsky RM. Stress, glucocorticoids, and damage to the nervous system: the current state of confusion. *Stress* 1996; 1(1): 1-19.
- Sapolsky R, Krey L, Mc Ewen B. Prolonged glucocorticoid exposure reduces hippocampal neuron number: implications for aging. *J Neurosci* 1985; 5: 1221.
- Sassi RB, Nicoletti M, Brambilla P, et al. Increased gray matter volume in lithium-treated bipolar disorder patients. *Neurosci Lett* 2002; 329(2): 243-245.
- Savard RJ, Rey AC, Post RM. Halstead-Reitan category test in bipolar and unipolar affective disorders. Relationship to age and phase of illness. *J Nerv Ment Dis* 1980; 168(5): 297-304.
- Sax KW, Strakowski SM, McElroy SL, Keck PE, West SA. Attention and formal thought disorder in mixed and pure mania. *Biol Psychiatry* 1995; 37: 420-423.
- Schrauzer GN. Lithium: occurrence, dietary intakes, nutritional essentiality. *J Am Coll Nutr* 2002; 21(1): 14-21.
- Schubert F, Gallinat J, Seifert F, Rinneberg H. Glutamate concentrations in human brain using single voxel proton magnetic resonance spectroscopy at 3 Tesla. *Neuroimage* 2004; 21(4): 1762-1771.
- Schubert F, Seifert F, Elster C, Link A, Walzel M, Mientus S, Haas J, Rinneberg H. Serial 1H-MRS in relapsing remitting multiple sclerosis: effects of interferon-beta therapy on absolute metabolite concentrations. *MAGMA* 2002; 14(3): 213-222.

- Scoville WB, Milner B. Loss of recent memory after bilateral hippocampal lesions. *J Neurol Neurosurg Psychiatry* 1957; 20: 11-21.
- Shaw ED, Stokes PE, Mann JJ, Manevitz AZ. Effects of lithium carbonate on the memory and motor speed of bipolar outpatients. *J Abnorm Psychol* 1987; 96(1): 64-69.
- Sheline YI. 3D MRI studies of neuroanatomic changes in unipolar major depression: role of stress and medical comorbidity. *Biol Psychiatry* 2000; 48(8): 791-800.
- Sheline YI, Sanghavi M, Mintun MA, Gado MH. Depression duration but not age predicts hippocampal volume loss in medically healthy women with recurrent major depression. *J Neurosci* 1999; 19(12): 5034-5043.
- Sheline YI, Wang PW, Gado MH, Csernansky JG, Vannier MW. Hippocampal atrophy in recurrent major depression. *Proc Natl Acad Sci U S A* 1996; 93(9): 3908-3913.
- Silverstone PH, Wu RH, O'Donnell T, Ulrich M, Asghar SJ, Hanstock CC. Chronic treatment with lithium, but not sodium valproate, increases cortical N-acetyl-aspartate concentrations in euthymic bipolar patients. *Int Clin Psychopharmacol* 2003; 18(2): 73-79.
- Smigian L, Perris C. Cortisol changes in long-term lithium therapy. *Neuropsychobiology* 1984; 11(4): 219-223.
- Smigian L, Perris C. Memory functions and prophylactic treatment with lithium. *Psychol Med* 1983; 13(3): 529-536.
- Solomon DA, Keitner GI, Miller IW, Shea MT, Keller MB. Course of illness and maintenance treatments for patients with bipolar disorder. *J Clin Psychiatry* 1995; 56(1): 5-13.
- Spreen O, Strauss E. Rey-Osterrieth complex figure test. In: a compendium of neuropsychological tests. New York: Oxford University Press, 1998: 341-363.
- Squire LR, Zola SM. Episodic memory, semantic memory and amnesia. *Hippocampus* 1998; 8(3): 205-211.
- Squire LR, Zola SM. Structure and function of declarative and nondeclarative memory systems. *Proc Natl Acad Sci USA* 1996; 93: 13515-13522.
- Squire LR, Judd LL, Janowsky DS, Huey LY. Effects of lithium carbonate on memory and other cognitive functions. *Am J Psychiatry* 1980; 137(9): 1042-1046.
- Starkman MN, Giordani B, Berent S, Schork MA, Schteingart DE. Elevated cortisol levels in Cushing's disease are associated with cognitive decrements. *Psychosom Med* 2001; 63: 985-993.
- Starkman MN, Gebarski SS, Berent S, Schteingart DE. Hippocampal formation volume, memory dysfunction, and cortisol levels in patients with Cushing's syndrome. *Biol Psychiatry* 1992; 32(9): 756-765.

Stokes PE. The potential role of excessive cortisol induced by HPA hyperfunction in the pathogenesis of depression. *Eur Neuropsychopharmacol* 1995; 5 Suppl: 77-82 .

Stokes PE, Sikes CR. Hypothalamic-pituitary-adrenal axis in psychiatric disorders. *Annu Rev Med* 1991; 42: 519-31.

Stokes PE, Sikes CR. The hypothalamic-pituitary-adrenocortical axis in major depression. *Neurol Clin* 1988; 6(1): 1-19.

Strakowski SM, DelBello MP, Sax KW, et al. Brain magnetic resonance imaging of structural abnormalities in bipolar disorder. *Arch Gen Psychiatry* 1999; 56(3): 254-260.

Strauss ME, Bohannon WE, Stephens JH, Pauker NE. Perceptual span in schizophrenia and affective disorders. *J Nerv Ment Dis* 1984; 172: 431-435.

Suppes T, Dennehy EB, Gibbons EW. The longitudinal course of bipolar disorder. *J Clin Psychiatry* 2000; 61 (suppl 9): 23-30.

Swayze VW 2nd, Andreasen NC, Alliger RJ, Yuh WT, Ehrhardt JC. Subcortical and temporal structures in affective disorder and schizophrenia: a magnetic resonance imaging study. *Biol Psychiatry* 1992; 31(3):221-240.

Sweeney JA, Kmiec JA, Kupfer DJ. Neuropsychologic impairments in bipolar and unipolar mood disorders on the CANTAB neurocognitive battery. *Biol Psychiatry* 2000; 48(7): 674-684.

Tondo L, Hennen J, Baldessarini RJ. Lower suicide risk with long-term lithium treatment in major affective illness: a meta-analysis. *Acta Psychiatr Scand* 2001; 104(3): 163-172.

Trullas R, Skolnick P. Functional antagonists at the NMDA receptor complex exhibit antidepressant actions. *Eur J Pharmacol* 1990; 185(1): 1-10.

Van Gorp WG, Altshuler L, Theberge DC, Mintz J. Declarative and procedural memory in bipolar disorder. *Biol Psychiatry* 1999; 46(4): 525-531.

Van Gorp WG, Altshuler L, Theberge DC, Wilkins J, Dixon W. Cognitive impairment in euthymic bipolar patients with and without prior alcohol dependence. A preliminary study. *Arch Gen Psychiatry* 1998; 55(1): 41-46.

Vendrell P, Junque C, Pujol J, Jurado MA, Molet J, Grafman J. The role of prefrontal regions in the Stroop task. *Neuropsychologie* 1995; 33(3): 341-352.

Volonte C, Rukenstein A. Lithium promotes short-term survival of PC12 cells after serum and NGF deprivation. *Lithium* 1993; 4: 211-219.

Watanabe Y, Gould E, McEwen BS. Stress induces atrophy of apical dendrites of hippocampal CA3 pyramidal neurons. *Brain Res* 1992; 588(2): 341-345.

Weeß HG, Lund R, Gresele C et al. Vigilanz, Einschlafneigung, Daueraufmerksamkeit, Müdigkeit, Schläfrigkeit. Die Messung müdigkeitsbezogener Prozesse bei Hypersomnien-

Theoretische Grundlagen. 2002 (Accessed December 12, 2005, at <http://web.uni-marburg.de/sleep/dgsm/ger/vigil1.pdf>)

Wehr TA, Wirz-Justice A. Circadian rhythm mechanisms in affective illness and in antidepressant drug action. *Pharmacopsychiatry* 1982; 15(1): 31-39.

Weingartner H, Silberman E. Models of cognitive impairment: cognitive changes in depression. *Psychopharmacol Bull* 1982; 18(2): 27-42.

Weitzman ED. Circadian rhythms and episodic hormone secretion in man. *Annu Rev Med* 1976; 27: 225-243.

Wilson BA, Cockburn J, Baddeley A, Hiorns A. The Rivermead Behavioural Memory Test. 2nd edition, Thames valley test company. 2. Auflage, The Northgate Press Limited, 1992.

Winsberg M, Sachs N, Tate DL, Adalsteinsson E, Spielman D, Ketter TA. Decreased dorsolateral prefrontal N-acetylaspartate in bipolar disorder. *Biol Psychiatry* 2000; 47: 475-481.

Wolfe J, Granholm E, Butters N, Saunders E, Janowsky D. Verbal memory deficits associated with major affective disorders: a comparison of unipolar and bipolar patients. *J Affect Disord* 1987; 13(1): 83-92.

Wolkowitz OM, Reus VI. Treatment of depression with antigluocorticoid drugs. *Psychosom Med* 1999; 61(5): 689-711.

Wolkowitz OM, Reus VI, Weingartner H, et al. Cognitive effects of corticosteroids. *Am J Psychiatry* 1990; 147(10): 1297-1303.

Wood GE, Young LT, Reagan LP, Chen B, McEwen BS. Stress-induced structural remodeling in hippocampus: prevention by lithium treatment. *Proc Natl Acad Sci U S A* 2004; 101(11): 3973-3978.

Woolley CS, Gould E, McEwen BS. Exposure to excess glucocorticoids alters dendritic morphology of adult hippocampal pyramidal neurons. *Brain Res* 1990; 531(1-2): 225-231.

Wüst S, Wolf J, Hellhammer DH, Federenko I, Schommer N, Kirschbaum C. The cortisol awakening response- normal values and confounds. *Noise and Health* 2000a; 7: 77-85.

Wüst S, Federenko I, Hellhammer DH, Kirschbaum. Genetic factors, perceived chronic stress, and the free cortisol response to awakening. *Psychoneuroendocrinology* 2000b; 25: 707-720.

Yoshino JE, DeVries GH. Effect of lithium on Schwann cell proliferation stimulated by axolemma- and myelin-enriched fractions. *J Neurochem* 1987; 48(4): 1270-1277.

Zarate CAJ, Payne JL, Quiroz J, et al. An open-label trial of riluzole in treatment-resistant major depression. *Am J Psychiatry* 2004; 161(1): 171-174.

Zimmermann P, Fimm B. Testbatterie zur Aufmerksamkeitsprüfung (TAP). Handbuch Version 1.0. Herzogenrath, Deutschland, 1992.

Zola-Morgan S, Squire LR, Amaral DG. Human amnesia and the medial temporal region: enduring memory impairment following a bilateral lesion limited to field CA1 of the hippocampus. *J Neurosci* 1986; 6: 2950-2967.

Zola-Morgan S, Squire LR. Medial temporal lesions in monkeys impair memory on a variety of tasks sensitive to human amnesia. *Behav Neurosci* 1985; 99: 22.