

Literaturverzeichnis

1. Amaral, D.G. and J.L.Bassett. 1989. Cholinergic Innervation of the Monkey Amygdala - An Immunohistochemical Analysis with Antisera to Choline-Acetyltransferase. *Journal of Comparative Neurology* 281:337-361.
2. Ansorge, W. 1985. Fast and sensitive detection of protein and DNA bands by treatment with potassium permanganate. *J. Biochem. Biophys. Meth.* 11:13-20.
3. Aridor, M., S.I.Bannykh, T.Rowe, and W.E.Balch. 1999. Cargo can modulate COPII vesicle formation from the endoplasmic reticulum. *J. Biol. Chem.* 274:4389-4399.
4. Asher, R.A., D.A.Morgenstern, P.S.Fidler, K.H.Adcock, A.Oohira, J.E.Braistead, J.M.Levine, R.U.Margolis, J.H.Rogers, and J.W.Fawcett. 2000. Neurocan is upregulated in injured brain and in cytokine-treated astrocytes. *J. Neurosci.* 20:2427-2438.
5. Aubert, I., J.L.Ridet, M.Schachner, G.Rougon, and F.H.Gage. 1998. Expression of L1 and PSA during sprouting and regeneration in the adult hippocampal formation. *Journal of Comparative Neurology* 399:1-19.
6. Bahr, M. and A.Wizenmann. 1996. Retinal ganglion cell axons recognize specific guidance cues present in the deafferented adult rat superior colliculus. *J. Neurosci.* 16:5106-5116.
7. Bateman, A., M.Jouet, J.MacFarlane, J.S.Du, S.Kenwrick, and C.Chothia. 1996. Outline structure of the human L1 cell adhesion molecule and the sites where mutations cause neurological disorders. *Embo Journal* 15:6050-6059.
8. Bechmann, I. and R.Nitsch. 1997. Astrocytes and microglial cells incorporate degenerating fibers following entorhinal lesion: A light, confocal, and electron microscopical study using a phagocytosis-dependent labeling technique. *Glia* 20:145-154.
9. Benson, D.L., L.M.Schnapp, L.Shapiro, and G.W.Huntley. 2000. Making memories stick: cell-adhesion molecules in synaptic plasticity. *Trends in Cell Biology* 10:473-482.
10. Biederer, T., Y.Sara, M.Mozhayeva, D.Atasoy, X.R.Liu, E.T.Kavalali, and T.C.Sudhof. 2002. SynCAM, a synaptic adhesion molecule that drives synapse assembly. *Science* 297:1525-1531.
11. Bozdagi, O., W.Shan, H.Tanaka, D.L.Benson, and G.W.Huntley. 2000. Increasing numbers of synaptic puncta during late-phase LTP: N-cadherin is synthesized, recruited to synaptic sites, and required for potentiation. *Neuron* 28:245-259.
12. Brauer, A.U., N.E.Savaskan, M.Plaschke, S.Prehn, O.Ninnemann, and R.Nitsch. 2000. IG-molecule Kilon shows differential expression pattern from LAMP in the developing and adult rat hippocampus. *Hippocampus* 10:632-644.
13. Brosamle, C., A.B.Huber, M.Fiedler, A.Skerra, and M.E.Schwab. 2000. Regeneration of lesioned corticospinal tract fibers in the adult rat induced by a recombinant, humanized IN-1 antibody fragment. *J. Neurosci.* 20:8061-8068.

14. Brown, D.A. and E.London. 2000. Structure and function of sphingolipid- and cholesterol-rich membrane rafts. *J. Biol. Chem.* 275:17221-17224.
15. Brummendorf, T. and F.G.Rathjen. 1993. Axonal Glycoproteins with Immunoglobulin and Fibronectin Type-Iii-Related Domains in Vertebrates - Structural Features, Binding Activities, and Signal-Transduction. *Journal of Neurochemistry* 61:1207-1219.
16. Brummendorf, T. and F.G.Rathjen. 1996. Structure/function relationships of axon-associated adhesion receptors of the immunoglobulin superfamily. *Current Opinion in Neurobiology* 6:584-593.
17. Brummendorf, T., F.Spaltmann, and U.Treubert. 1997. Cloning and characterization of a neural cell recognition molecule on axons of the retinotectal system and spinal cord. *European Journal of Neuroscience* 9:1105-1116.
18. Brummendorf, T., S.Kenwrick, and F.G.Rathjen. 1998. Neural cell recognition molecule L1: from cell biology to human hereditary brain malformations. *Current Opinion in Neurobiology* 8:87-97.
19. Brummendorf, T. and V.Lemmon. 2001. Immunoglobulin superfamily receptors: cis-interactions, intracellular adapters and alternative splicing regulate adhesion. *Current Opinion in Cell Biology* 13:611-618.
20. Buchstaller, A., S.Kunz, P.Berger, B.Kunz, U.Ziegler, C.Rader, and P.Sonderegger. 1996. Cell adhesion molecules NgCAM and axonin-1 form heterodimers in the neuronal membrane and cooperate in neurite outgrowth promotion. *J. Cell Biol.* 135:1593-1607.
21. Caceres, A., G.Banker, O.Steward, L.Binder, and M.Payne. 1984. Map2 Is Localized to the Dendrites of Hippocampal-Neurons Which Develop in Culture. *Developmental Brain Research* 13:314-318.
22. Campbell, K. and M.Gotz. 2002. Radial glia: multi-purpose cells for vertebrate brain development. *Trends in Neurosciences* 25:235-238.
23. Carchon, H., E.Van Schaftingen, G.Matthijs, and J.Jaeken. 1999. Carbohydrate-deficient glycoprotein syndrome type IA (phosphomannomutase-deficiency). *Biochimica et Biophysica Acta-Molecular Basis of Disease* 1455:155-165.
24. Carlin, R.K., D.J.Grab, R.S.Cohen, and P.Siekevitz. 1980. Isolation and Characterization of Postsynaptic Densities from Various Brain-Regions - Enrichment of Different Types of Postsynaptic Densities. *Journal of Cell Biology* 86:831-843.
25. Castellani, V., E.De Angelis, S.Kenwrick, and G.Rougon. 2002. Cis and trans interactions of L1 with neuropilin-1 control axonal responses to semaphorin 3A. *Embo Journal* 21:6348-6357.
26. Cervello, M., V.Matranga, P.Durbec, G.Rougon, and S.Gomez. 1996. The GPI-anchored adhesion molecule F3 induces tyrosine phosphorylation: Involvement of the FNIII repeats. *Journal of Cell Science* 109:699-704.

27. Chang, S., F.G.Rathjen, and J.A.Raper. 1987. Extension of Neurites on Axons Is Impaired by Antibodies Against Specific Neural Cell-Surface Glycoproteins. *Journal of Cell Biology* 104:355-362.
28. Clarke, W.E., M.Berry, C.Smith, A.Kent, and A.Logan. 2001. Coordination of fibroblast growth factor receptor 1 (FGFR1) and fibroblast growth factor-2 (FGF-2) trafficking to nuclei of reactive astrocytes around cerebral lesions in adult rats. *Molecular and Cellular Neuroscience* 17:17-30.
29. Clusmann, H., R.Nitsch, and U.Heinemann. 1994. Long-Lasting Functional Alterations in the Rat Dentate Gyrus Following Entorhinal Cortex Lesion - A Current Source Density Analysis. *Neuroscience* 61:805-815.
30. Conacci-Sorrell, M.E., T.Ben Yedidia, M.Shtutman, E.Feinstein, P.Einat, and A.Ben Ze'ev. 2002. Nr-CAM is a target gene of the beta-catenin/LEF-1 in melanoma and colon cancer and its expression enhances motility and confers tumorigenesis. *Genes & Development* 16:2058-2072.
31. Cotman C, 1997. Synaptic replacement in the dentate gyrus after unilateral entorhinal lesion: electron microscopic analysis of the extent of replacement of synapses by the remaining entorhinal cortex. *J Neurocytol.* 6:455-464.
32. Cotman, C.W., M.Nietosampetro, and E.W.Harris. 1981. Synapse Replacement in the Nervous-System of Adult Vertebrates. *Physiological Reviews* 61:684-784.
33. Crossin, K.L. and L.A.Krushel. 2000. Cellular signaling by neural cell adhesion molecules of the immunoglobulin superfamily. *Developmental Dynamics* 218:260-279.
34. De Angelis, E., J.MacFarlane, J.S.Du, G.Yeo, R.Hicks, F.G.Rathjen, S.Kenwick, and T.Brummendorf. 1999. Pathological missense mutations of neural cell adhesion molecule L1 affect hemophilic and heterophilic binding activities. *Embo Journal* 18:4744-4753.
35. De Angelis, E., T.Brummendorf, L.Cheng, V.Lemmon, and S.Kenwick. 2001. Alternative use of a mini exon of the L1 gene affects L1 binding to neural ligands. *J. Biol. Chem.* 276:32738-32742.
36. De Angelis, E., A.Watkins, M.Schäfer, T.Brummendorf, and S.Kenwick. 2002. Disease-associated mutations in L1 CAM interfere with ligand interactions and cell-surface expression. *Human Molecular Genetics* 11:1-12.
37. De Benedictis, L., A.Polizzi, G.Cangiano, M.Buttiglione, S.Arba, C.T.Storlazzi, M.Rocchi, and G.Gennarini. 2001. Alternative promoters drive the expression of the gene encoding the mouse axonal glycoprotein F3/Contactin. *Molecular Brain Research* 95:55-74.
39. Deller, T., M.Frotscher, and R.Nitsch. 1995. Morphological Evidence for the Sprouting of Inhibitory Commissural Fibers in Response to the Lesion of the Excitatory Entorhinal Input to the Rat Dentate Gyrus. *J. Neurosci.* 15:6868-6878.
40. Deller, T., R.Nitsch, and M.Frotscher. 1995. Phaseolus-Vulgaris-Leukoagglutinin Tracing of Commissural Fibers to the Rat Dentate Gyrus - Evidence for A Previously Unknown Commissural Projection to the Outer Molecular Layer. *Journal of Comparative Neurology* 352:55-68.

41. Deller, T., C.A.Haas, and M.Frotscher. 2000. Reorganization of the rat fascia dentata after a unilateral entorhinal cortex lesion - Role of the extracellular matrix. *Parahippocampal Region* 911:207-220.
42. Eagleson, K.L., A.F.Pimenta, M.M.Burns, L.D.Fairfull, P.K.Cornuet, L.Zhang, and P.Levitt. 2003. Distinct domains of the limbic system-associated membrane protein (LAMP) mediate discrete effects on neurite outgrowth. *Molecular and Cellular Neuroscience* 24:725-740.
43. Edelman, G.M. and F.S.Jones. 1998. Gene regulation of cell adhesion: a key step in neural morphogenesis. *Brain Research Reviews* 26:337-352.
44. Fannon, A.M. and D.R.Colman. 1996. A model for central synaptic junctional complex formation based on the differential adhesive specificities of the cadherins. *Neuron* 17:423-434.
45. Ferretti, P., F.Zhang, L.Santos-Ruiz, and J.D.W.Clarke. 2001. FGF signalling and blastema growth during amphibian tail regeneration. *International Journal of Developmental Biology* 45:S127-S128.
46. Fitzli, D., E.T.Stoeckli, S.Kunz, K.Siribour, C.Rader, B.Kunz, S.V.Kozlov, A.Buchstaller, R.P.Lane, D.M.Suter, W.J.Dreyer, and P.Sonderegger. 2000. A direct interaction of axonin-1 with NgCAM-related cell adhesion molecule (NrCAM) results in guidance, but not growth of commissural axone. *Journal of Cell Biology* 149:951-968.
47. Flanagan, J.G. and P.Vanderhaeghen. 1998. The ephrins and Eph receptors in neural development. *Annual Review of Neuroscience* 21:309-345.
48. Fransen, E., V.Lemmon, G.Vancamp, L.Vits, P.Coucke, and P.J.Willems. 1995. Crash Syndrome - Clinical Spectrum of Corpus-Callosum Hypoplasia, Retardation, Adducted Thumbs, Spastic Paraparesis and Hydrocephalus Due to Mutations in One Single-Gene, L1. *European Journal of Human Genetics* 3:273-284.
49. Friedlander, D.R., P.Milev, L.Karthikeyan, R.K.Margolis, R.U.Margolis, and M.Grument. 1994. Neuronal Chondroitin Sulfate Proteoglycan Neurocan Binds to the Neural Cell-Adhesion Molecules Ng-Cam/L1/Nile and N-Cam, and Inhibits Neuronal Adhesion and Neurite Outgrowth. *Journal of Cell Biology* 125:669-680.
50. Frotscher, M., B.Heimrich, and T.Deller. 1997. Sprouting in the hippocampus is layer-specific. *Trends in Neurosciences* 20:218-223.
51. Funatsu, N., S.Miyata, H.Kumanogoh, M.Shigeta, K.Hamada, Y.Endo, Y.Sokawa, and S.Maekawa. 1999. Characterization of a novel rat brain glycosylphosphatidylinositol-anchored protein (Kilon), a member of the IgLON cell adhesion molecule family. *J. Biol. Chem.* 274:8224-8230.
52. Gage, F.H., P.Olejniczak, and D.M.Armstrong. 1988. Astrocytes Are Important for Sprouting in the Septohippocampal Circuit. *Experimental Neurology* 102:2-13.
53. Garver, T.D., Q.Ren, S.Tuvia, and V.Bennett. 1997. Tyrosine phosphorylation at a site highly conserved in the L1 family of cell adhesion molecules abolishes ankyrin binding and increases lateral mobility of neurofascin. *Journal of Cell Biology* 137:703-714.

54. Giger, R.J., L.Vogt, R.A.Zuellig, C.Rader, A.Henehanbeatty, D.P.Wolfer, and P.Sonderegger. 1995. The Gene of Chicken Axonin-1 - Complete Structure and Analysis of the Promoter. *European Journal of Biochemistry* 227:617-628.
55. Gil, O.D., G.Zanazzi, A.F.Struyk, and J.L.Salzer. 1998. Neurotrimin mediates bifunctional effects on neurite outgrowth via homophilic and heterophilic interactions. *J. Neurosci.* 18:9312-9325.
56. Gil, O.D., L.Zhang, S.Chen, Y.Q.Ren, A.Pimenta, G.Zanazzi, D.Hillman, P.Levitt, and J.L.Salzer. 2002. Complementary expression and heterophilic interactions between IgLON family members neurotrimin and LAMP. *Journal of Neurobiology* 51:190-204.
57. Haas, C.A., U.Rauch, N.Thon, T.Merten, and T.Deller. 1999. Entorhinal cortex lesion in adult rats induces the expression of the neuronal chondroitin sulfate proteoglycan neurocan in reactive astrocytes. *J. Neurosci.* 19:9953-9963.
58. Hama H, et.al 2004. PKC signaling mediates global enhancement of excitatory synaptogenesis in neurons triggered by local contact with astrocytes. *Neuron* 41:405-415.
59. Hanahan, D. 1985. Techniques for Transformation of E.coli. In DNA Cloning. (Washington D. C. : IRL press Oxford).
60. Haspel, J. and M.Grumet. 2003. The L1CAM extracellular region: A multi-domain protein with modular and cooperative binding modes. *Frontiers in Bioscience* 8:S1210-S1225.
61. Hassel, B., F.G.Rathjen, and H.Volkmer. 1997. Organization of the neurofascin gene and analysis of developmentally regulated alternative splicing. *J. Biol. Chem.* 272:28742-28749.
62. Holm, J., R.Hillenbrand, V.Steuber, U.Bartsch, M.Moos, H.Lubbert, D.Montag, and M.Schachner. 1996. Structural features of a close homologue of L1 (CHL1) in the mouse: A new member of the L1 family of neural recognition molecules. *European Journal of Neuroscience* 8:1613-1629.
63. Horner, P.J. and F.H.Gage. 2000. Regenerating the damaged central nervous system. *Nature* 407:963-970.
64. Horstkorte, R., M.Schachner, J.P.Magyar, T.Vorherr, and B.Schmitz. 1993. The fourth immunoglobulin-like domain of NCAM contains a carbohydrate recognition domain for oligomannosidic glycans implicated in association with L1 and neurite outgrowth. *J. Cell Biol.* 121:1409-1421.
65. Horton, H.L. and P.Levitt. 1988. A unique membrane protein is expressed on early developing limbic system axons and cortical targets. *J. Neurosci.* 8:4653-4661.
67. Hortsch, M. 2000. Structural and functional evolution of the L1 family: Are four adhesion molecules better than one? *Molecular and Cellular Neuroscience* 15:1-10.
68. Irie, M., Y.Hata, M.Takeuchi, K.Ichtchenko, A.Toyoda, K.Hirao, Y.Takai, T.W.Rosahl, and T.C.Sudhof. 1997. Binding of neuroligins to PSD-95. *Science* 277:1511-1515.

69. Jaeken, J., H.Stibler, and B.Hagberg. 1991. The Carbohydrate-Deficient Glycoprotein Syndrome - A New Inherited Multisystemic Disease with Severe Nervous-System Involvement - General Introduction. *Acta Paediatrica Scandinavica*5.
70. Jeng, C.J., S.A.McCarroll, T.F.J.Martin, E.Floor, J.Adams, D.Krantz, S.Butz, R.Edwards, and E.S.Schweitzer. 1998. Thy-1 is a component common to multiple populations of synaptic vesicles. *Journal of Cell Biology* 140:685-698.
71. Johnston, P.A., R.Jahn, and T.C.Sudhof. 1989. Transmembrane Topography and Evolutionary Conservation of Synaptophysin. *J. Biol. Chem.* 264:1268-1273.
72. Jouet, M., A.Rosenthal, G.Armstrong, J.MacFarlane, R.Stevenson, J.Paterson, A.Metzenberg, V.Ionasescu, K.Temple, and S.Kenwick. 1994. X-Linked Spastic Paraplegia (Spg1), Masa Syndrome and X-Linked Hydrocephalus Result from Mutations in the L1 Gene. *Nature Genetics* 7:402-407.
73. Kadmon, G., A.Kowitz, P.Altevogt, and M.Schachner. 1990. Functional Cooperation Between the Neural Adhesion Molecules L1 and N-Cam Is Carbohydrate Dependent. *Journal of Cell Biology* 110:209-218.
74. Kadmon, G., F.Halbach, R.Horstkorte, M.Eckert, P.Altevogt, and M.Schachner. 1995. Evidence for Cis Interaction and Cooperative Signaling by the Heat-Stable Antigen Nectadrin (Murine Cd24) and the Cell-Adhesion Molecule L1 in Neurons. *European Journal of Neuroscience* 7:993-1004.
75. Kallunki, P., S.Jenkinson, G.M.Edelman, and F.S.Jones. 1995. Silencer Elements Modulate the Expression of the Gene for the Neuron-Glia Cell-Adhesion Molecule, Ng-Cam. *J. Biol. Chem.* 270:21291-21298.
76. Kallunki, P., G.M.Edelman, and F.S.Jones. 1998. The neural restrictive silencer element can act as both a repressor and enhancer of L1 cell adhesion molecule gene expression during postnatal development. *Proceedings of the National Academy of Sciences of the United States of America* 95:3233-3238.
77. Kamiguchi, H. and V.Lemmon. 1998. A neuronal form of the cell adhesion molecule L1 contains a tyrosine-based signal required for sorting to the axonal growth cone. *J. Neurosci.* 18:3749-3756.
78. Kamiguchi, H., K.E.Long, M.Pendergast, A.W.Schaefer, I.Rapoport, T.Kirchhausen, and V.Lemmon. 1998. The neural cell adhesion molecule L1 interacts with the AP-2 adaptor and is endocytosed via the clathrin-mediated pathway. *J. Neurosci.* 18:5311-5321.
79. Kandel, E.R., J.H.Schwartz, and T.M.Jessel. 1996. Neurowissenschaften - Eine Einführung. *Spektrum Akademischer Verlag, Berlin, Oxford.*
80. Kawaja MD, Gage.F. 1991. Reactive astrocytes are substrates for the growth of adult CNS axons in the presence of elevated levels of nerve growth factor. *Neuron* 7:1019-1030.

81. Keller, F., K.Rimvall, M.F.Barbe, and P.Levitt. 1989. A Membrane Glycoprotein Associated with the Limbic System Mediates the Formation of the Septo Hippocampal Pathway In vitro. *Neuron* 3:551-561.
82. Kelley MS, S.O. 1997. Injury-induced physiological events that may modulate gene expression in neurons and glia. *Rev Neurosci.* 8:147-177.
83. Kennedy, T.E., T.Serafini, J.R.Delatorre, and M.TessierLavigne. 1994. Netrins Are Diffusible Chemotropic Factors for Commissural Axons in the Embryonic Spinal-Cord. *Cell* 78:425-435.
84. Kunz, S., M.Spirig, C.Ginsburg, A.Buchstaller, P.Berger, R.Lanz, C.Rader, L.Vogt, B.Kunz, and P.Sonderegger. 1998. Neurite Fasciculation Mediated by Complexes of Axonin-1 and Ng Cell Adhesion Molecule. *J. Cell Biol.* 143:1673-1690.
85. Laemmli, U.K. 1970. Cleavage of structural proteins during the assembly of the head of bacteriophage T4. *Nature* 227:680-685.
86. Law, J.W.S., A.Y.W.Lee, M.Sun, A.G.Nikonenko, S.K.Chung, A.Dityatev, M.Schachner, and F.Morellini. 2003. Decreased anxiety, altered place learning, and increased CA1 basal excitatory synaptic transmission in mice with conditional ablation of the neural cell adhesion molecule L1. *J. Neurosci.* 23:10419-10432.
87. Lemmon, V., K.L.Farr, and C.Lagenaur. 1989. L1-Mediated Axon Outgrowth Occurs Via A Homophilic Binding Mechanism. *Neuron* 2:1597-1603.
88. Lodge, A.P., C.J.McNamee, M.R.Howard, J.E.Reed, and D.J.Moss. 2001. Identification and characterization of CEPU-Se - A secreted isoform of the IgLON family protein, CEPU-1. *Molecular and Cellular Neuroscience* 17:746-760.
89. Long, K.E., H.Asou, M.D.Snider, and V.Lemmon. 2001. The role of endocytosis in regulating L1-mediated adhesion. *J. Biol. Chem.* 276:1285-1290.
90. Luo, Y.L., D.Raible, and J.A.Raper. 1993. Collapsin - A Protein in Brain That Induces the Collapse and Paralysis of Neuronal Growth Cones. *Cell* 75:217-227.
91. Luthi, A., J.P.Laurent, A.Figurov, D.Muller, and M.Schachner. 1994. Hippocampal Long-Term Potentiation and Pleural Cell-Adhesion Molecules L1 and Ncam. *Nature* 372:777-779.
92. Mann, F., V.Zhukareva, A.Pimenta, P.Levitt, and J.Bolz. 1998. Membrane-associated molecules guide limbic and nonlimbic thalamocortical projections. *J. Neurosci.* 18:9409-9419.
93. Marg, A., P.Sirim, F.Spaltmann, A.Plagge, G.Kauselmann, F.Buck, F.G.Rathjen, and T.Brummendorf. 1999. Neurotractin, a novel neurite outgrowth-promoting Ig-like protein that interacts with CEPU-1 and LAMP. *Journal of Cell Biology* 145:865-876.
94. Matthews, D.A, C.W.Cotman, and G.Lynch. 1976. An electron microscopic study of lesion-induced synaptogenesis in the dentate gyrus of the adult rat. II. Reappearance of morphologically normal synaptic contacts. *Brain Res.* 115:23-41.

95. Mauch, D.H., K.Nagler, S.Schumacher, C.Goritz, E.C.Muller, A.Otto, and F.W.Pfriege. 2001. CNS synaptogenesis promoted by glia-derived cholesterol. *Science* 294:1354-1357.
96. Mckeon, R.J., M.J.Juryne, and C.R.Buck. 1999. The chondroitin sulfate proteoglycans neurocan and phosphacan are expressed by reactive astrocytes in the chronic CNS glial scar. *J. Neurosci.* 19:10778-10788.
97. Michaelis, R.C., Y.Z.Du, and C.E.Schwartz. 1998. The site of a missense mutation in the extracellular Ig or FN domains of L1CAM influences infant mortality and the severity of X linked hydrocephalus. *Journal of Medical Genetics* 35:901-904.
98. Michelson, P., C.Hartwig, M.Schachner, A.Gal, A.Veske, and U.Finckh. 2002. A cell culture-based model for neurodevelopmental disorder: Reduced neurite outgrowth due to mutations in the human neural cell adhesion molecule L1. *American Journal of Medical Genetics* 114:742-743.
99. Miyata, S., K.Taguchi, and S.Maekawa. 2003. Dendrite-associated opioid-binding cell adhesion molecule localizes at neurosecretory granules in the hypothalamic magnocellular neurons. *Neuroscience* 122:169-181.
100. Miyata, S., N.Matsumoto, K.Taguchi, A.Akagi, T.Iino, N.Funatsu, and S.Maekawa. 2003. Biochemical and ultrastructural analyses of IgLON cell adhesion molecules, Kilon and OBCAM in the rat brain. *Neuroscience* 117:645-658.
101. Miyata, S., N.Matsumoto, and S.Maekawa. 2003. Polarized targeting of IgLON cell adhesion molecule OBCAM to dendrites in cultured neurons. *Brain Research* 979:129-136.
102. More, M.I., F.P.Kirsch, and F.G.Rathjen. 2001. Targeted ablation of NrCAM or ankyrin-B results in disorganized lens fibers leading to cataract formation. *Journal of Cell Biology* 154:187-196.
103. Moulding, H.D., R.L.Martuza, and S.D.Rabkin. 2000. Clinical mutations in the L1 neural cell adhesion molecule affect cell-surface expression. *J. Neurosci.* 20:5696-5702.
104. Nadler, J.V., B.W.Perry, and C.W.Cotman. 1980. Interaction with Ca⁴-Derived Fibers Accounts for Distribution of Septohippocampal Fibers in Rat Fascia Dentata After Entorhinal Lesion. *Experimental Neurology* 68:185-194.
105. Nadler, J.V., B.W.Perry, and C.W.Cotman. 1980. Selective Re-Innervation of Hippocampal Area Ca1 and the Fascia Dentata After Destruction of Ca³-Ca⁴ Afferents with Kainic Acid. *Brain Research* 182:1-9.
106. Neugebauer, K.M., K.J.Tomaselli, J.Lilien, and L.F.Reichardt. 1988. N-Cadherin, Ncam, and Integrins Promote Retinal Neurite Outgrowth on Astrocytes Invitro. *Journal of Cell Biology* 107:1177-1187.
107. Papadopoulos, C.M., S.Y.Tsai, T.Alsbiei, T.E.O'Brien, M.E.Schwab, and G.L.Kartje. 2002. Functional recovery and neuroanatomical plasticity following middle cerebral artery occlusion and IN-1 antibody treatment in the adult rat. *Annals of Neurology* 51:433-441.

108. Pierre, K., G.Rougon, M.Allard, R.Bonhomme, G.Gennarini, D.A.Poulain, and D.T.Theodosis. 1998. Regulated expression of the cell adhesion glycoprotein F3 in adult hypothalamic magnocellular neurons. *J. Neurosci.* 18:5333-5343.
109. Pimenta AF, and Levitt, P. 2004. Characterization of the genomic structure of the mouse limbic system-associated membrane protein (Lsamp) gene. *Genomics.* 83:790-801.
110. Pimenta, A.F., V.Zhukareva, M.F.Barbe, B.S.Reinoso, C.Grimley, W.Henzel, I.Fischer, and P.Levitt. 1995. The Limbic System-Associated Membrane-Protein Is An Ig Superfamily Member That Mediates Selective Neuronal Growth and Axon Targeting. *Neuron* 15:287-297.
111. Plagge, A. and T.Brummendorf. 1997. The gene of the neural cell recognition molecule F11: Conserved exon-intron arrangement in genes of neural members of the immunoglobulin superfamily. *Gene* 192:215-225.
112. Primiano, T., M.Baig, A.Maliyekkel, B.D.Chang, S.Fellars, J.Sadhu, S.A.Axenovich, T.A.Holzmayer, and I.B.Roninson. 2003. Identification of potential anticancer drug targets through the selection of growth-inhibitory genetic suppressor elements. *Cancer Cell* 4:41-53.
113. Ramon Y Cajal. 1890. Sobre la aparicion de las expansiones celulares an la medula embrionaria. *Gaceta Sanitaria de Barcelona* 12:413-419.
114. Ramon Y Cajal. 1906. La fine structure des centres nerveux. *Proc. R. Soc. (London)*444-467.
115. Ramon Y Cajal. 1911. Histologie du Systeme Nerveux de l'Homme et des Vertebres. (Paris: Maloine).
116. Raper, J.A. 2000. Semaphorins and their receptors in vertebrates and invertebrates. *Current Opinion in Neurobiology* 10:88-94.
117. Rathjen, F.G. and M.Schachner. 1984. Immunocytological and Biochemical-Characterization of A New Neuronal Cell-Surface Component (L1-Antigen) Which Is Involved in Cell-Adhesion. *Embo Journal* 3:1-10.
118. Rathjen, F.G., J.M.Wolff, R.Frank, F.Bonhoeffer, U.Rutishauser, and A.Schoeffski. 1987. Membrane-Glycoproteins Involved in Neurite Fasciculation. *Journal of Cell Biology* 104:343-353.
119. Ridet, J.L., S.K.Malhotra, A.Privat, and F.H.Gage. 1998. Reactive astrocytes: Cellular and molecular cues to biological function (vol 20, pg 580, 1997). *Trends in Neurosciences* 21:80.
120. Rosenthal, A., M.Jouet, and S.Kenwrick. 1992. Aberrant Splicing of Neural Cell-Adhesion Molecule L1 Messenger-Rna in A Family with X-Linked Hydrocephalus. *Nature Genetics* 2:107-112.
121. Runker, A.E., U.Bartsch, K.A.Nave, and M.Schachner. 2003. The C264Y missense mutation in the extracellular domain of L1 impairs protein trafficking in vitro and in vivo. *J. Neurosci.* 23:277-286.

122. Sakurai, T., M.Lustig, J.Babiarz, A.J.W.Furley, S.Tait, P.J.Brophy, S.A.Brown, L.Y.Brown, C.A.Mason, and M.Grudet. 2001. Overlapping functions of the cell adhesion molecules Nr-CAM and L1 in cerebellar granule cell development. *Journal of Cell Biology* 154:1259-1273.
123. Sambrook, J.L. and E.F.u.M.T.Fritsch. 1989. Molecular Cloning: A Laboratory Manual. (*Cold Spring Harbor, New York: CSHL Press*).
124. Savaskan, N.E. and R.Nitsch. 2001. Molecules involved in reactive sprouting in the hippocampus. *Reviews in the Neurosciences* 12:195-215.
125. Schaefer, A.W., H.Kamiguchi, E.V.Wong, C.M.Beach, G.Landreth, and V.Lemmon. 1999. Activation of the MAPK Signal Cascade by the Neural Cell Adhesion Molecule L1 Requires L1 Internalization. *J. Biol. Chem.* 274:37965-37973.
126. Scheiffele, P., J.H.Fan, J.Choih, R.Fetter, and T.Serafini. 2000. Neuroligin expressed in nonneuronal cells triggers presynaptic development in contacting axons. *Cell* 101:657-669.
127. Schmidt, C., V.Kunemund, E.S.Wintergerst, B.Schmitz, and M.Schachner. 1996. CD9 of mouse brain is implicated in neurite outgrowth and cell migration in vitro and is associated with the alpha 6/beta 1 integrin and the neural adhesion molecule L1. *Journal of Neuroscience Research* 43:12-31.
128. Schnell, L. and M.E.Schwab. 1990. Axonal Regeneration in the Rat Spinal-Cord Produced by An Antibody Against Myelin-Associated Neurite Growth-Inhibitors. *Nature* 343:269-272.
129. Schnorrer, F. and B.J.Dickson. 2004. Axon guidance: Morphogens show the way. *Current Biology* 14:R19-R21.
130. Schroder, W., G.Hager, E.Kouprijanova, M.Weber, A.B.Schmitt, G.Seifert, and C.Steinhauser. 1999. Lesion-induced changes of electrophysiological properties in astrocytes of the rat dentate gyrus. *Glia* 28:166-174.
131. Sellar, G.C., K.P.Watt, G.J.Rabiasz, E.A.Stronach, L.Li, E.P.Miller, C.E.Massie, J.Miller, B.Contreras-Moreira, D.Scott, I.Brown, A.R.Williams, P.A.Bates, J.F.Smyth, and H.Gabra. 2003. OPCML at 11q25 is epigenetically inactivated and has tumor-suppressor function in epithelial ovarian cancer. *Nature Genetics* 34:337-343.
132. Serafini, T., T.E.Kennedy, M.J.Galko, C.Mirzayan, T.M.Jessell, and M.TessierLavigne. 1994. The Netrins Define A Family of Axon Outgrowth-Promoting Proteins Homologous to C-Elegans Unc-6. *Cell* 78:409-424.
133. Shearer, M.C., S.P.Niclou, D.Brown, R.A.Asher, A.J.G.D.Holtmaat, J.M.Levine, J.Verhaagen, and J.W.Fawcett. 2003. The astrocyte/meningeal cell interface is a barrier to neurite outgrowth which can be overcome by manipulation of inhibitory molecules or axonal signalling pathways. *Molecular and Cellular Neuroscience* 24:913-925.
134. Sicotte, M., O.Tsatas, S.Y.Jeong, C.Q.Cai, Z.G.He, and S.David. 2003. Immunization with myelin or recombinant Nogo-66/MAG in alum promotes axon regeneration and sprouting after corticospinal tract lesions in the spinal cord. *Molecular and Cellular Neuroscience* 23:251-263.

135. Simons, K. and E.Ikonen. 1997. Functional rafts in cell membranes. *Nature* 387:569-572.
136. Sink, H., E.J.Rehm, L.Richstone, Y.M.Bulls, and C.S.Goodman. 2001. sidestep encodes a target-derived attractant essential for motor axon guidance in *Drosophila*. *Cell* 105:57-67.
137. Skutella, T. and R.Nitsch. 2001. New molecules for hippocampal development. *Trends in Neurosciences* 24:107-113.
138. Smith, C., M.Berry, W.E.Clarke, and A.Logan. 2001. Differential expression of fibroblast growth factor-2 and fibroblast growth factor receptor 1 in a scarring and nonscarring model of CNS injury in the rat. *European Journal of Neuroscience* 13:443-456.
139. Smith, G.M., U.Rutishauser, J.Silver, and R.H.Miller. 1990. Maturation of Astrocytes In vitro Alters the Extent and Molecular-Basis of Neurite Outgrowth. *Developmental Biology* 138:377-390.
140. Sonderegger, P. and F.G.Rathjen. 1992. Regulation of Axonal Growth in the Vertebrate Nervous-System by Interactions Between Glycoproteins Belonging to 2 Subgroups of the Immunoglobulin Superfamily. *Journal of Cell Biology* 119:1387-1394.
141. Song, H.J. and M.M.Poo. 2001. The cell biology of neuronal navigation. *Nature Cell Biology* 3:E81-E88.
142. Song, J.Y., K.Ichtchenko, T.C.Sudhof, and N.Brose. 1999. Neuroligin 1 is a postsynaptic cell-adhesion molecule of excitatory synapses. *Proceedings of the National Academy of Sciences of the United States of America* 96:1100-1105.
143. Spaltmann, F. and T.Brummendorf. 1996. CEPU-1, a novel immunoglobulin superfamily molecule, is expressed by developing cerebellar Purkinje cells. *J. Neurosci.* 16:1770-1779.
144. Steward, O. and S.L.Vinsant. 1983. The Process of Reinnervation in the Dentate Gyrus of the Adult-Rat - A Quantitative Electron-Microscopic Analysis of Terminal Proliferation and Reactive Synaptogenesis. *Journal of Comparative Neurology* 214:370-386.
145. Stoeckli, E.T. and L.T.Landmesser. 1995. Axonin-1, Nr-Cam, and Ng-Cam Play Different Roles in the In-Vivo Guidance of Chick Commissural Neurons. *Neuron* 14:1165-1179.
146. Stoeckli, E.T. and L.T.Landmesser. 1998. Axon guidance at choice points. *Current Opinion in Neurobiology* 8:73-79.
147. Struyk, A.F., P.D.Canoll, M.J.Wolfgang, C.L.Rosen, P.Deustachio, and J.L.Salzer. 1995. Cloning of Neurotrimin Defines A New Subfamily of Differentially Expressed Neural Cell-Adhesion Molecules. *J. Neurosci.* 15:2141-2156.
148. Tanaka, H., W.S.Shan, G.R.Phillips, K.Arndt, O.Bozdagi, L.Shapiro, G.W.Huntley, D.L.Benson, and D.R.Colman. 2000. Molecular modification of N-cadherin in response to synaptic activity. *Neuron* 25:93-107.

149. TessierLavigne, M. and C.S.Goodman. 1996. The molecular biology of axon guidance. *Science* 274:1123-1133.
150. Togashi, H., K.Abe, A.Mizoguchi, K.Takaoka, O.Chisaka, and M.Takeichi. 2002. Cadherin regulates dendritic spine morphogenesis. *Neuron* 35:77-89.
151. Tuvia, S., T.D.Garver, and V.Bennett. 1997. The phosphorylation state of the FIGQY tyrosine of neurofascin determines ankyrin-binding activity and patterns of cell segregation. *Proceedings of the National Academy of Sciences of the United States of America* 94:12957-12962.
152. Van Vactor, D. and J.G.Flanagan. 1999. The middle and the end: Slit brings guidance and branching together in axon pathway selection. *Neuron* 22:649-652.
153. Varma, R. and S.Mayor. 1998. GPI-anchored proteins are organized in submicron domains at the cell surface. *Nature* 394:798-801.
154. Vits, L., G.Vancamp, P.Coucke, E.Fransen, K.Debouille, E.Reyniers, B.Korn, A.Poustka, G.Wilson, C.Schranderstumpel, R.M.Winter, C.Schwartz, and P.J.Willems. 1994. Masa Syndrome Is Due to Mutations in the Neural Cell-Adhesion Gene L1Cam. *Nature Genetics* 7:408-413.
155. Volkmer, H., R.Leuschner, U.Zacharias, and F.G.Rathjen. 1996. Neurofascin induces neurites by heterophilic interactions with axonal NrCAM while NrCAM requires F11 on the axonal surface to extend neurites. *J. Cell Biol.* 135:1059-1069.
156. Walter J, K. und F.Bonhoeffer 1987. Recognition of position-specific properties of tectal cell membranes by retinal axons in vitro. *Development.* 101:685-696.
157. Williams, E.J., J.Furness, F.S.Walsh, and P.Doherty. 1994. Activation of the Fgf Receptor Underlies Neurite Outgrowth Stimulated by L1, N-Cam, and N-Cadherin. *Neuron* 13:583-594.
158. Wolff JM Brummendorf T, R.FG. 1989. Neural cell recognition molecule F11: membrane interaction by covalently attached phosphatidylinositol. *Biochem Biophys Res Commun.* 15:931 938.
159. Wong, E.V., A.W.Schaefer, G.Landreth, and V.Lemmon. 1996. Casein kinase II phosphorylates the neural cell adhesion molecule L1. *Journal of Neurochemistry* 66:779-786.
160. Wong, E.V., A.W.Schaefer, G.Landreth, and V.Lemmon. 1996. Involvement of p90(rsk) in neurite outgrowth mediated by the cell adhesion molecule L1. *J. Biol. Chem.* 271:18217-18223.
161. Yamasaki, M., P.Thompson, and V.Lemmon. 1997. CRASH syndrome: Mutations in L1CAM correlate with severity of the disease. *Neuropediatrics* 28:175-178.
162. Zacco, A., V.Cooper, P.D.Chantler, S.Fisherhyland, H.L.Horton, and P.Levitt. 1990. Isolation, Biochemical-Characterization and Ultrastructural Analysis of the Limbic System-Associated Membrane-Protein (Lamp), A Protein Expressed by Neurons Comprising Functional Neural Circuits. *J. Neurosci.* 10:73-90.

163. Zhukareva, V. and P.Levitt. 1995. The Limbic System-Associated Membrane-Protein (Lamp) Selectively Mediates Interactions with Specific Central Neuron Populations. *Development* 121:1161-1172.
164. Zisch, A.H., L.Dalessandri, K.Amrein, B.Ranscht, K.H.Winterhalter, and L.Vaughan. 1995. The Glypiated Neuronal Cell-Adhesion Molecule Contactin/F11 Complexes with Src-Family Protein-Tyrosine Kinase Fyn. *Molecular and Cellular Neuroscience* 6:263-279.