CURRICULUM VITAE

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Education

9/64-6/72	Elementary and Music School in Hunedoara/Romania
9/72-6/75	Special English Highschool in Cluj/Romania
9/76-7/82	Medical School, University of Heidelberg, Germany; Thesis of dissertation at the Institute of History of Medicine (Prof. Dietrich von Engelhardt), University of Heidelberg on the subject "Phenomenology of jealousy in the work of Marcel Proust and the psychiatric literature of his time".
1/83-6/84	Resident at the University Hospital for Psychiatry, Department of Child Psychiatry, Mannheim/Germany.
7/84-6/86	Resident at the University Hospital for Pediatrics, Department of Pediatric Neurology, Lübeck/Germany.
7/86-7/87	Postdoctoral Research Fellow at the Stanford University Medical Center, Department of Neurology, EEG Laboratory (Prof. Barry Tharp).
7/87-9/89	Postdoctoral Research Fellow at the Stanford University Medical Center, Department of Neurology, Neurology Research Laboratory (Prof. Dennis W. Choi).
10/89-9/94	Postdoctoral Research Fellow at the Center for Molecular Biology, University Heidelberg (Prof. P.H. Seeburg).
10/94	Hermann-and-Lilly-Schilling-Foundation C3 Professor at the Center for Molecular Biology, University Heidelberg.
5/99	Head of the Department of Clinical Neurobiology, Neurological University Hospital Heidelberg and Interdisciplinary Center of Neurosciences (IZN), University Heidelberg.
2002 - 2008	Speaker of the DFG funded Graduate College (GK 791) “Neural developmental and degenerative processes: Basic research and clinical implications”

Since 9/09	Helmholtz W3 Professor at the Department “Clinical Neurobiology” of the Medical Faculty of the University and the German Cancer Research Center (DKFZ) Heidelberg.

Fellowships / Awards / Honors

1977-82	Scholarship Award of the German National Academic Foundation
1987	Clinical Neuroscience Trainee Award, Los Angeles Society of Neurology and Psychiatry
1988-89	Stanford University Dean’s Postdoctoral Fellowship
1993	The Drs. C. and F. Demuth Swiss Medical Research Foundation Annual Award
1999	Federal Cross of Merrit on Ribbon
2004	Gottfried Wilhelm Leibniz Prize awarded by the DFG
2005	Prix Franco-Allemand Gay-Lussac – Humboldt
2005	Elected member of the German Academy of Sciences LEOPOLDINA
2006	Philip Morris Research Award
2006	Elected member of the Heidelberg Academy of Sciences and Humanities
2009	ERC 2009 Advanced Grant, Proposal No. 250047: Linking GABAergic neurones to hippocampal-entorhinal system functions (short title: GABAcellsAndMemory) (07/2010 - 06/2015)
2010	Heidelberg University Marsilius Fellow, March 2010 - Feb. 2011
2014	Elected member of EMBO
2016	Elected member of the Academia Europaea (The Academy of Europe)
2016	Einstein BIH (Berlin Institute of Health) Visiting Fellowship at the Charité Berlin
2016	Tsungming Tu Award (TTA), Ministry of Science and Technology, Taipei, Taiwan, ROC
2018	Akademiepreis der Berlin-Brandenburgischen Akademie der Wissenschaften
2020	Lautenschläger Forschungspreis, Universität Heidelberg

Memberships

1987	Society for Neuroscience
2001	German Neuroscience Society
2006-2012	DFG reviewer committee for the Heinz Maier-Leibnitz Prize and the Gottfried Wilhelm Leibniz-Prize
2008	Member of the Scientific Advisory Board of I.S.T. Austria, Vienna
2009-2016	Member of the Senate of the DZNE (German Centre for Neurodegenerative Diseases)

2012-2015	Member of the Scientific Advisory Board of the FWF Science Fund, Vienna, Austria
2017 -	Member of the Supervisory Board of the Max Delbrück Center for Molecular Medicine in the Helmholtz Association (MDC) Berlin
2017 -	Member of the Scientific Advisory Board of the Brain Science Institute (BSI) of Korea Institute of Science and Technology (KIST)
2020 -	Member of the Scientific Advisory Board of the "Cluster of Excellence NeuroCure" of the Charité - Universitätsmedizin Berlin

Publications

Reviewed Research Journal Publications:

1. Von Claer S, von Engelhardt D, **Monyer H**, Warecka K: Das Arztbild des Multiple-Sklerose-Patienten in der Perspektive der Copingstruktur. *Medizin Mensch Gesellsch.* 13: 108-116 (1988).
2. **Monyer H**, Choi DW: Morphinans attenuate cortical neuronal injury induced by glucose deprivation *in vitro*. *Brain Res.* 446: 144-148 (1988).
3. Goldberg MP, **Monyer H**, Weiss JH, Choi DW: Adenosine reduces cortical neuronal injury induced by oxygen or glucose deprivation *in vitro*. *Neurosci. Lett.* 89: 323-327 (1988).
4. Davenport CJ, **Monyer H**, Choi DW: Tetrahydroaminoacridine selectively attenuates NMDA receptor-mediated neurotoxicity. *Eur. J. Pharmacol*. 154: 73-78 (1988).
5. Goldberg MP, **Monyer H**, Choi DW: Hypoxic neuronal injury *in vitro* depends on extracellular glutamine. *Neurosci. Lett*. 94: 52-57 (1988).
6. **Monyer H**, Goldberg MP, Choi DW: Glucose deprivation neuronal injury in cortical culture. *Brain Res* . 483: 347-354 (1989).
7. Choi DW, Viseskul V, Amirthanayagam M, **Monyer H**: Aspartate neurotoxicity in cultured cortical neurons. *J. Neurosci. Res.* 23: 116-121 (1989).
8. Tecoma ES, **Monyer H**, Goldberg MP, Choi DW: Traumatic neuronal injury *in vitro* is attenuated by NMDA antagonists. *Neuron* 2: 1541-1545 (1989).
9. Hahn JS, **Monyer H**, Tharp BR: Interburst interval measurement in the EEGs of premature infants with normal neurological outcome. *Electroencephalogr. Clin. Neurophysiol.* 73: 410-418 (1989).
10. **Monyer H**, Choi DW: Glucose deprivation neuronal injury *in vitro* is modified by withdrawal of extracellular glutamine. *J. Cereb. Blood Flow Metab.* 10: 337-342 (1990).
11. Giffard RG, **Monyer H**, Christine CW, Choi DW: Acidosis reduces NMDA receptor activation, glutamate neurotoxicity, and oxygen-glucose deprivation neuronal injury in cortical cultures. *Brain Research* 506: 339-342 (1990).
12. Hartley DM, **Monyer H**, Choi DW: 7-Chlorokynurenate blocks NMDA receptor-mediated neurotoxicity in murine cortical culture. *Eur. J. Neurosci*. 2: 291-295 (1990).
13. Giffard RG, **Monyer H**, Choi DW: Selective vulnerability of cultured cortical glia to injury by extracellular acidosis. *Brain Research* 15: 138-141 (1990).
14. **Monyer H**, Hartley DM, Choi DW: 21-Aminosteroids attenuate excitotoxic neuronal injury in cortical cell cultures. *Neuron* 5: 121-126 (1990).
15. Lüddens H, Pritchett DB, Köhler M, Killisch I, Keinänen K, **Monyer H**, Sprengel R, Seeburg PH: A cerebellar $GABA_A$ receptor selective for a behavioural alcohol antagonist. *Nature* 346: 648-651 (1990).
16. Eva C, Keinänen K, **Monyer H**, Seeburg PH, Sprengel R: Molecular cloning of a novel G protein-coupled receptor that may belong to the neuropeptide receptor family. *FEBS Lett*. 271: 81-84 (1990).

17. **Monyer H**, Seeburg PH, Wisden W: Glutamate-operated channels: Developmentally early and mature forms arise by alternative splicing. *Neuron* 6: 1-20 (1991).

18. Verdoorn TA, Burnashev N, **Monyer H**, Seeburg PH, Sakmann B: Structural Determinants of Ion Flow Through Recombinant Glutamate Receptor Channels. *Science* 252: 1715-1718 (1991).

19. Burnashev N, **Monyer H**, Seeburg PH, Sakmann B: Divalent ion permeability of AMPA receptor channels is dominated by the edited form of a single subunit. *Neuron* 8: 189-198 (1992).

20. Wisden W, Laurie DJ, **Monyer H**, Seeburg PH: The distribution of 13 $GABA_A$ receptor subunit mRNAs in the rat brain. *J. Neurosci.* 12: 1040-1062 (1992).

21. Burnashev N, Khodorova A, Jonas P, **Monyer H**, Wisden W, Seeburg PH, Sakmann B: Calcium-permeable AMPA-Kainate receptors in fusiform cerebellar glial cells. *Science* 256: 1566-1570 (1992).

22. **Monyer H,** Giffard RG, Hartley D, Dugan LL, Goldberg M, Choi DW: Oxygen or glucose deprivation-induced neuronal injury in cortical cell cultures is reduced by tetanus toxin. *Neuron* 8: 967-973 (1992).

23. **Monyer H**, Sprengel R, Schoepfer R, Herb A, Higuchi M, Lomeli H, Burnashev N, Sakmann B, Seeburg PH: Heteromeric NMDA receptors: Molecular and functional distinction of subtypes. *Science* 256: 1217-1221 (1992).

24. Burnashev N, Schoepfer R, **Monyer H**, Ruppersberg JP, Guenther W, Seeburg PH, Sakmann B: Control by asparagine residues of calcium permeability and magnesium blockade in the NMDA receptor. *Science* 257: 1415-1419 (1992).

25. Kamphuis W, **Monyer H**, De Rijk TC, da Silva L: Hippocampal kindling increases the expression of glutamate receptor A flip and B flip mRNA in dentate granule cells. *Neurosci. Lett,* 148: 51-54 (1992).

26. Herlitze S, Raditsch M, Ruppersberg JP, Jahn W, **Monyer H**, Schoepfer R, Witzemann V: Argiotoxin detects molecular differences in AMPA receptor channels. *Neuron* 10: 1131-1140 (1993).

27. **Monyer H**, Seeburg PH: Constituents involved in glutamate receptor signaling. *Hippocampus* 3: 125-129 (1993).

28. **Monyer H**, Burnashev N, Laurie DJ, Sakmann B, Seeburg PH: Developmental and regional expression in the rat brain and functional properties of four NMDA receptor subtypes. *Neuron* 12: 529-540 (1994).

29. Koehr G, Eckardt S, Lueddens H, **Monyer H**, Seeburg PH: NMDA receptor channels: subtype specific potentiation by reducing agents. *Neuron* 12: 1031-1040 (1994).

30. Jonas P, Racca C, Sakmann B, Seeburg PH, **Monyer H**, Differences in Ca2+ permeability of AMPA-type glutamate receptor channels in neocortical neurons caused by differential GluR-B subunit expression. *Neuron* 12: 1281-1289 (1994).

31. Mosbacher J, Schoepfer R, **Monyer H**, Burnashev N, Seeburg PH, Ruppersberg JP: A molecular determinant for submillisecond desensitization in glutamate receptors. *Science* 266: 1059-1062 (1994).

32. Lomeli H, Mosbacher J, Melcher T, Höger T, Geiger J, Kuner T, **Monyer H**, Higuchi M, Bach A, Seeburg PH: Control of kinetic properties of AMPA receptor channels by nuclear RNA editing. *Science* 266: 1709-1712 (1994).

33. Geiger JRP, Melcher T, Koh DS, Sakmann B, Seeburg PH, Jonas P, **Monyer H**: Relative abundance of subunit mRNAs determines gating and Ca^{2+} permeability of AMPA receptors in principal neurons and interneurons in rat CNS. *Neuron* 15: 193-204 (1995).

34. Catania MV, Tölle T, **Monyer H**: Differential expression of AMPA receptor subunits in NOS-positive neurons of cortex, striatum and hippocampus. *J. Neurosci.* 15: 7046-7061 (1995).

35. **Monyer H**, Lambolez B: Molecular biology and physiology at the single-cell level. Review. *Curr. Opin. Neurobiol.* 5: 382-387 (1995).

36. Racca C, Catania MV, **Monyer H**, Sakmann B: Expression of AMPA-glutamate receptor B subunit in rat hippocampal GABAergic neurons. *Eur. J. Neurosci.* 8: 1580-1590 (1996).

37. Muir JK, Lobner D, **Monyer H**, Choi DW: $GABA_A$ receptor activation attenuates excitotoxicity but exacerbates oxygen-glucose deprivation. *J. Cereb. Blood Flow Metab.* 16: 1211-1218 (1996).

38. Flint AC, Maisch US, Weishaupt J, Kriegstein AR, **Monyer H**: NR2A subunit expression shortens NMDA receptor synaptic currents in developing cortex. *J. Neurosci.* 17: 2469-2476 (1997).

39. Ying HS, Weishaupt J, Grabb M, Canzoniero LMT, Sensi SL, Sheline CT **Monyer H**, Choi DW: Sublethal oxygen-glucose deprivation alters hippocampal neuronal AMPA receptor expression and vulnerability to kainate-induced death. *J. Neurosci.*, 17: 9536-9544 (1997).

40. Ceranik K, Bender R, Geiger JRP, **Monyer H**, Jonas P, Frotscher M, Lübke JA: novel type of GABAergic interneuron connecting the input and the output regions of the hippocampus *J. Neurosci.* 17: 5380-5394 (1997).

41. Berger T, Schwarz C, Kraushaar U, **Monyer H**: Dentate gyrus basket cells GABAA receptors are blocked by Zn2+ via changes of their desensitization kinetics: an in situ patch-clamp and single-cell PCR study. *J. Neurosci.* 18: 2437-2448 (1998).

42. Honer M, Benke D, Laube B, Kuhse J, Heckendorn R, Allgeier H, Angst C, **Monyer H**, Seeburg PH, Betz H, Mohler H: Differentiation of glycine antagonist sites of NMDA receptor subtypes. *J. Biol. Chem*. 273: 11158-11163 (1998).

43. Martina M, Schultz JH, Ehmke H, **Monyer H**, Jonas P: Functional and molecular differences between voltage-gated K+ channels of fast-spiking interneurons and pyramidal neurons of rat hippocampus. *J. Neurosci.* 18: 8111-8125 (1998).

44. Nase G, Weishaupt J, Stern P, Singer W, **Monyer H**: Genetic and epigenetic regulation of NMDA receptor expression in the rat visual cortex. *Eur. J. Neurosci.* 11: 4320-4326 (1999).

45. Giffard R, Papadopoulos MC, van Hooft H, Xu L, Giuffrida R, **Monyer H**: The electrogenic sodium bicarbonate cotransporter: Developmental expression in rat brain and possible role in acid vulnerability. *J. Neurosci.* 20: 1001-1008 (2000).

46. Van Hooft H, Giuffrida R, Blatow M, **Monyer H**: Differential expression of group I metabotropic glutamate receptors in functionally distinct hippocampal interneurons. *J. Neurosci.* 20: 3544-3551 (2000).

47. Venance L, Rozov A, Blatow M, Burnashev N, Feldmeyer D, **Monyer H**: Connexin expression in electrically coupled postnatal rat brain neurons. *Proc. Natl. Acad. Sci. USA* 97: 10260-10265 (2000).

48. Fuchs EC, Doheny H, Faulkner H, Caputi A, Traub RD, Bibbig A, Kopell N, Whittington MA, **Monyer H**: Genetically altered AMPA-type glutamate receptor kinetics in interneurons disrupt long-range synchrony of gamma oscillation. *Proc. Natl. Acad. Sci. USA* 98: 3571-3576 (2001).

49. Hormuzdi SG, Pais I, LeBeau FEN, Towers SK, Rozov A, Buhl EH, Whittington MA, **Monyer H**: Impaired electrical signalling disrupts gamma frequency oscillations in connexin 36-deficient mice. *Neuron* 31: 487-495 (2001).

50. Kelsch W, Hormuzdi S, Straube E, Lewen A, **Monyer H**, Misgeld U: Insulin-like growth factor 1 and a cytosolic tyrosine kinase activate chloride outward transport during maturation of hippocampal neurons. *J. Neurosci*. 21: 8339-47 (2001).

51. Meyer AH, Katona I, Blatow M, Rozov A, **Monyer H**: *In vivo* labeling of parvalbumin-positive interneurons and analysis of electrical coupling in identified neurons. *J. Neurosci.* 22: 7055-7064 (2002).

52. Bartos M, Vida I, Frotscher M, Meyer A, **Monyer H**, Geiger JRP, Jonas P: Fast synaptic inhibition promotes synchronized gamma oscillations in hippocampal interneuron networks. *Proc. Natl. Acad. Sci. USA* 99: 13222-13227 (2002).

53. Pais I, Hormuzdi SG, **Monyer H**, Traub RD, Wood IC, Buhl EH, Whittington MA, LeBeau FE: Sharp wave-like activity in the hippocampus *in vitro* in mice lacking the gap junction protein connexin 36. *J. Neurophysiol.* 89: 2046-2054 (2003).

54. Traub RD, Pais I, Bibbig A, LeBeau FEN, Buhl EH, Hormuzdi SG, **Monyer H**, Whittington MA: Contrasting roles of axonal (pyramidal cell) and dendritic (interneuron) electrical coupling in the generation of neuronal network oscillations. *Proc. Natl. Acad. Sci. USA* 100: 1370-1374 (2003).

55. Buhl DL, Harris KD, Hormuzdi SG, **Monyer H**, Buzsáki G: Selective impairment of hippocampal gamma oscillations in connexin-36 knock-out mouse *in vivo*. *J. Neurosci.* 23: 1013-1018 (2003).

56. Herrmann O, Tarabin V, Suzuki S, Attigah N, Coserea I, Schneider A, Vogel J, Prinz S, Schwab S, **Monyer H**, Brombacher F, Schwaninger M: Regulation of body temperature and neuroprotection by endogenous interleukin-6 in cerebral ischemia. *J. Cereb. Blood Flow Metab.* 23: 406-415 (2003).

57. Blatow M, Caputi A, Burnashev N, **Monyer H**, Rozov A: Ca^{2+} buffer saturation underlies paired pulse facilitation in calbindin-D28k-containing terminals. *Neuron* 38: 79-88 (2003).

58. Nase G, Singer W, **Monyer H**, Engel, A.K.: Features of neuronal synchrony in mouse visual cortex. *J. Neurophysiol.* 90: 1115-1123 (2003).

59. Blatow M, Rozov A, Katona I, Hormuzdi SG, Meyer AH, Whittington MA, Caputi A, **Monyer H**: A novel network of multipolar bursting interneurons generates theta frequency oscillations in neocortex. *Neuron* 38: 805-817 (2003).

60. Aller MI, Jones A, Merlo D, Paterlini M, Meyer AH, Amtmann U, Brickley S, Jolin HE, McKenzie ANJ, **Monyer H**, Farrant M, Wisden W: Cerebellar granule cell Cre recombinase expression. *Genesis* 36: 97-103 (2003).

61. Margrie TW, Meyer AH, Caputi A, **Monyer H**, Hasan MT, Schaefer AT, Denk W, Brecht M: Targeted whole-cell recordings in the mammalian brain *in vivo*. *Neuron* 39: 1-20 (2003).

62. Filippov MA, Hormuzdi SG, Fuchs EC, **Monyer H**: A reporter allele for investigating connexin 26 gene expression. *Eur. J. Neurosci.* 18: 3183-3192 (2003).

63. Bruzzone R, Hormuzdi SG, Barbe MT, Herb A, **Monyer H**: Pannexins, a family of gap junction proteins expressed in brain. *Proc. Natl. Acad. Sci. USA* 100: 13644-13649 (2003).

64. LeBeau FEN, Traub RD, **Monyer H**, Whittington MA, Buhl EH: Review: The role of electrical signaling via gap junctions in the generation of fast network oscillations. *Brain Res. Bulletin* 62: 3-13 (2003).

65. Giffard RG, Lee YS, Ouyang YB, Murphy SL, **Monyer H**: Two variants of the rat brain sodium-driven chloride bicarbonate exchanger (NCBE): developmental expression and addition of a PDZ motif. *Eur. J. Neurosci.* 18: 2935-45 (2003).

66. Hormuzdi SG, Filippov MA, Mitropoulou G, **Monyer H**, Bruzzone R: Electrical synapses: A dynamic signaling system that shapes the activity of neuronal networks. Review. *Biochim. Biophys. Acta* 1662: 113-137 (2004).

67. **Monyer H** and Markram H: *Interneuron Diversity series*: Molecular and genetic tools to study GABAergic interneuron diversity and function. Review.*Trends Neurosci.* 27: 90-97 (2004).

68. Cunningham MO, Whittington MA, Bibbig A, Roopun A, LeBeau FEN, Vogt A, **Monyer H**, Buhl EH, Traub RD: A role for fast rhythmic bursting neurons in cortical gamma oscillations *in vitro*. *Proc. Natl. Acad. Sci. USA* 101: 7152-7157 (2004).

69. Feigenspan A, Janssen-Bienhold U, Hormuzdi S, **Monyer H**, Degen J, Sohl G, Willecke K, Ammermuller J, Weiler R: Expression of connexin36 in cone pedicles and OFF-cone bipolar cells of the mouse retina. *J. Neurosci.* 24: 3325-3334 (2004).

70. Blatow M, Caputi A, **Monyer H**: Molecular diversity of neocortical GABAergic interneurones. Review. *J. Physiol.* 562: 99-105 (2005).

71. Gloveli T, Dugladze T, Saha S, **Monyer H**, Heinemann U, Traub RD, Whittington MA, Buhl EH: Differential involvement of oriens/pyramidale interneurones in hippocampal network oscillations *in vitro*. *J. Physiol.* 562: 131-147 (2005).

72. Henderson Z, Boros A, Janzso G, Westwood AJ, **Monyer H**, Halasy K: Somato-dendritic nicotinic receptor responses recorded *in vitro* from the medial septal diagonal band complex of the rodent. *J. Physiol.* 562: 165-182 (2005).

73. Bruzzone R, Barbe MT, Jakob NJ, **Monyer H**: Pharmacological properties of homomeric and heteromeric pannexin hemi-channels expressed in Xenopus oocytes. *J. Neurochem.* 92: 1033-1043 (2005).

74. Christie JM, Bark C, Hormuzdi SG, Helbig I, **Monyer H**, Westbrook GL: Connexin36 mediates spike synchrony in olfactory bulb glomeruli. Neuron 46: 761-772 (2005).

75. Schubert T, Degen J, Willecke K, Hormuzdi SG, **Monyer H**, Weiler R: Connexin36 mediates gap junctional coupling of alpha-ganglion cells in mouse retina. *J. Comp. Neurol.* 485: 191-201 (2005).

76. Traub RD, Pais I, Bibbig A, LeBeau FE, Buhl EH, Garner H, **Monyer H**, Whittington MA: Transient depression of excitatory synapses on interneurons contributes to epileptiform bursts during gamma oscillations in the mouse hippocampal slice. *J. Neurophysiol.* 94:1225-1235 (2005).

77. Gloveli T, Dugladze T, Rotstein HG, Traub RD, **Monyer H**, Heinemann U, Whittington MA, Kopell NJ: Orthogonal arrangement of rhythm-generating microcircuits in the hippocampus. *Proc. Natl. Acad. Sci. USA* 102: 13295-13300 (2005).

78. Vogt A, Hormuzdi SG, **Monyer H**: Pannexin1 and Pannexin2 expression in the developing and mature rat brain. *Mol. Brain Res.* 141:113-120 (2005).

79. Titz S, Hormuzdi S, Lewen A, **Monyer H**, Misgeld U: Intracellular acidification in neurons induced by ammonium depends on KCC2 function. *Eur. J. Neurosci.* 23: 454-464 (2006).

80. Barbe MT, **Monyer H**, Bruzzone R: Cell-Cell Communication Beyond Connexins: The Pannexin Channels. *Physiology* 21: 103-114 (2006).

81. Freiman I, Anton A, **Monyer H**, Urbanski MJ, Szabo B: Analysis of the effects of cannabinoids on identified synaptic connections in the caudate-putamen by paired recordings in transgenic mice. *J. Physiol.* 575: 789-806 (2006).

82. Butovas S, Hormuzdi SG, **Monyer H**, Schwarz C: Effects of electrically coupled inhibitory networks on local neuronal responses to intracortical microstimulation. *J. Neurophysiol.* 96: 1227-1236 (2006).

83. Woodruff AR, **Monyer H**, Sah P: GABAergic excitation in the basolateral amygdala. *J. Neurosci.* 26: 11881-11887 (2006).

84. Fuchs EC, Zivkovic AR, Cunningham MO, Middleton S, LeBeau FE, Bannerman DM, Rozov A, Whittington MA, Traub RD, Rawlins JN, **Monyer H**: Recruitment of parvalbumin-positive interneurons determines hippocampal function and associated behavior. *Neuron* 53: 591-604 (2007).

85. Tappe-Theodor A, Agarwal N, Katona I, Rubino T, Martini L, Swiercz J, Mackie K, **Monyer H**, Parolaro D, Whistler J, Kuner T, Kuner R: A molecular basis of analgesic tolerance to cannabinoids. *J. Neurosci.* 27: 4165-4177 (2007).

86. von Engelhardt J, Eliava M, Meyer A, Rozov A, **Monyer H**: Functional characterization of intrinsic cholinergic interneurons in the cortex. *J. Neurosci.* 27: 5633-5624 (2007).

87. von Engelhardt J, Coserea I, Pawlak V, Fuchs EC, Köhr G, Seeburg PH, **Monyer H**: Excitotoxicity *in vitro* by NR2A- and NR2B-containing NMDA receptors. *Neuropharmacology* 53: 10-17 (2007).

88. Khodosevich K, Inta D, Seeburg PH, **Monyer H**: Gene expression analysis of *in vivo* fluorescent cells. *PloS ONE* (2)11: e1151 (2007).

89. Van der Giessen RS, Koekkoek SK, van Dorp S, De Gruijl JR, Cupido A, Khosrovani S, Dortland B, Wellershaus K, Degen J, Deuchars J, Fuchs EC, **Monyer H**, Willecke K, De Jeu MT, De Zeeuw CI: Role of olivary electrical coupling in cerebellar motor learning. *Neuron* 58: 599-612 (2008).

90. Middleton SJ, Racca C, Cunningham MO, Traub RD, **Monyer H**, Knöpfel T, Schofield IS, Jenkins A, Whittington MA: High-frequency network oscillations in cerebellar cortex. *Neuron* 58: 763-774 (2008).

91. Schütz B, von Engelhardt J, Gördes M, Schäfer MK-H, Eiden LE, **Monyer H**, Weihe E: Sweat gland innervation is pioneered by sympathetic neurons expressing a cholinergic/noradrenergic co-phenotype in the mouse. *Neuroscience* 156: 310-318 (2008).

92. Weichenhan D, Traut W, Göngrich C, Himmelbauer H, Busch L, **Monyer H**, Winking H: A mouse translocation associated with Caspr5-2 disruption and perinatal lethality. *Mamm. Genome* 19: 675-686 (2008).

93. Anselmi F, Hernandez VH, Crispino G, Seydel A, Ortolano S, Roper SD, Kessaris N, Richardson W, Rickheit G, Filippov MA, **Monyer H**, Mammano F: ATP release through connexin hemichannels and gap junction transfer of

second messengers propagate Ca2+ signals across the inner ear. *Proc. Natl. Acad. Sci. U.S.A.* 105: 18770-18775 (2008).

94. von Engelhardt J, Doganci B, Jensen V, Hvalby O, Göngrich C, Taylor A, Barkus C, Sanderson DJ, Rawlins JNP, Seeburg PH, Bannerman DM, **Monyer H**: Contribution of hippocampal and extra-hippocampal NR2B-containing NMDA receptors to performance on spatial learning tasks. *Neuron* 60: 846-860 (2008).

95. Inta DI, Alfonso J, von Engelhardt J, Kreuzberg MM, Meyer AH, van Hooft JA, **Monyer H**: Neurogenesis and widespread forebrain migration of distinct GABAergic neurons from the postnatal subventricular zone. *Proc. Natl. Acad. Sci. U.S.A.* 105: 20994-20999 (2008).

96. Wulff P, Ponomarenko AA, Bartos M, Korotkova TM, Fuchs EC, Bähner F, Both M, Tort AB, Kopell NJ, Wisden W, **Monyer H**: Hippocampal theta rhythm and its coupling with gamma oscillations require fast inhibition onto parvalbumin-positive interneurons. *Proc. Natl. Acad. Sci. U.S.A.* 106: 3561-3566 (2009).

97. Haverkamp S, Inta D, **Monyer H**, Wässle H: Expression Analysis of Green Fluorescent Protein in Retinal Neurons of Four Transgenic Mouse Lines. *Neuroscience* 160: 126-139 (2009).

98. Rácz A, Ponomarenko AA, Fuchs EC, **Monyer H**: Augmented hippocampal ripple-oscillations in mice with reduced fast excitation onto parvalbumin-positive cells. *J. Neurosci.* 29: 2563-2568 (2009).

99. Caputi A, Rozov A, Blatow M, **Monyer H**: Two Calretinin-positive GABAergic cell types in layer 2/3 of the mouse neocortex provide different forms of inhibition. *Cereb. Cortex* 19: 1345-1359 (2009).

100. Chameau P, Inta D, Vitalis T, **Monyer H**, Wadman WJ, van Hooft JA: The N-terminal region of reelin regulates postnatal dendritic maturation of cortical pyramidal neurons. *Proc. Natl. Acad. Sci. U.S.A.* 106: 7227-7232 (2009), Epub 2009, Apr. 6.

101. Hundelt M, Fath T, Selle K, Oesterwind K, Jordan J, Schultz C, Götz J, von Engelhardt J, **Monyer H**, Lewejohann L, Sachser N, Bakota L, Brandt R: Altered phosphorylation but no neurodegeneration in a mouse model of tau hyperphosphorilation. *Neurobiol. Aging* 32: 991-1006 (2011). Epub 2009 Aug 5.

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