

A. Original Articles

1. Kaltenbach, M., Martin, K.-L., Zilles, K.: Volumenbestimmung des linken Ventrikels aus dem Kineangiogramm. *Verh. dtsh. Ges. Kreisf.-Forsch.* 37: 423-427 (1971)
2. Kaltenbach, M., Martin, K.-L., Zilles, K.: Volume determination of left ventricle from cineangiogram. *Zschr. Kreislaufforsch.* 60: (1971).
3. Kaltenbach, M., Martin, K.-L., Zilles, K.: Volume determination of left ventricle from kineangiogram. *Klin. Wochenschr.* 49: (1971).
4. Tschirkov, V., Krause, E., Zilles, K., Varady, Z.: Blutveränderungen in den unteren Extremitäten bei Blutstromunterbrechung und postoperativem Ödem. *Med. Welt (Berl.)* 22, 2029-2032 (1971)
5. Zilles, K.: Biometrische Analyse der Frischvolumina verschiedener prosencephaler Hirnregionen von 78 menschlichen, adulten Gehirnen. *Gegenbaurs morph. Jb.* 118, 234-273 (1972)
6. Zilles, K., Wingert, F.: Biometrische Analyse der Frischvolumina des Nucl. ruber einer ontogenetischen Reihe von Albinomäusen. *Z. Anat. Entwickl.-Gesch.* 138, 215-226 (1972)
7. Zilles, K., Wingert, F.: Quantitative studies of the development of the fresh volumes and the number of neurons of the nucl. n. oculomotorii of white mice during ontogenesis. *Brain Res.* 56, 63-75 (1973)
8. Schleicher, A., Zilles, K., Kretschmann, H.-J.: Eine Methode zur rationellen Partikelzählung. *Microscopica Acta* 77: 37-47 (1975)
9. Schleicher, A., Zilles, K., Wingert, F., Kretschmann, H.-J.: Bestimmung der Anzahl der Zellen mit mehr als einem Nucleolus im histologischen Schnittpräparat. *Microscopica Acta* 77: 316-330 (1975)
10. Zilles, K., Schleicher, A., Wingert, F.: Spontaner Neuronenuntergang im Nucl. tractus mesencephali n. trigemini während der Perinatalzeit einer ontogenetischen Reihe von Albinomäusen. *Gegenbaurs morph. Jb.* 121, 289-299 (1975)
11. Zilles K., Schleicher, A., Kretschmann, H.-J., Wingert, F.: Semiautomatic morphometric analysis of the nucleolar development in the nucl. n. oculomotorii of *Tupaia belangeri* during ontogenesis. *Anat. Embryol.* 149: 15-28 (1976)
12. Zilles, K., Schleicher, A., Wingert, F.: Quantitative Analyse des Wachstums der Frischvolumina limbischer Kerngebiete im Diencephalon und Mesencephalon einer ontogenetischen Reihe von Albinomäusen. I. Nucleus habenulae. *J. Hirnforsch.* 17: 1-10 (1976)
13. Zilles, K., Schleicher, A., Wingert, F.: Quantitative Analyse des Wachstums der Frischvolumina limbischer Kerngebiete im Diencephalon und Mesencephalon einer ontogenetischen Reihe von Albinomäusen. II. Corpus mamillare. *J. Hirnforsch.* 17, 11-20 (1976)

14. Zilles, K., Schleicher, A., Wingert, F.: Quantitative Analyse des Wachstums der Frischvolumina limbischer Kerngebiete im Diencephalon und Mesencephalon einer ontogenetischen Reihe von Albinomäusen. III. Nucleus interpeduncularis. *J. Hirnforsch.* 17: 21-29 (1976)
15. Zilles, K.: Quantitative Aspekte der Ontogenese visueller Hirnregionen. *Fortschr. Med.* 96: 63-67 (1978)
16. Zilles, K., Schleicher, A., Kretschmann, H.-J.: A quantitative approach to cytoarchitectonics. I. The areal pattern of the cortex of *Tupaia belangeri*. *Anat. Embryol.* 153: 195-212 (1978)
17. Zilles, K., Schleicher, A., Kretschmann, H.-J.: Automatic morphometric analysis of retrograde changes in the nucl. n. facialis at different ontogenetic stages in the rat. *Cell Tiss. Res.* 190: 285-299 (1978)
18. Zilles, K., Schleicher, A., Kretschmann, H.-J.: A quantitative approach to cytoarchitectonics. II. The allocortex of *Tupaia belangeri*. *Anat. Embryol.* 154, 335-352 (1978)
19. Zilles, K.: Determination und Plastizität in der prä- und postnatalen Entwicklung des Gehirns. *Z. mikroskop.-anat. Forsch.* 93: 763-770 (1979)
20. Kretschmann, H.-J., Schleicher, A., Wingert, F., Zilles, K., Löblich, H.-J.: Human brain growth in the 19th and 20th century. *J. Neurol. Sciences* 40: 169-188 (1979)
21. Zilles, K., Nিকেleit, V.: Efferent connections from the brain to the frontal organ in *Rana temporaria* demonstrated by labeling with horseradish peroxidase. *Cell Tiss. Res.* 196: 189-192 (1979)
22. Zilles, K., Rehkämper, G., Stephan, H., Schleicher, A.: A quantitative approach to cytoarchitectonics. IV. The areal pattern of the cortex of *Galago demidovii* (E. Geoffroy, 1796), (Lorisidae, Primates). *Anat. Embryol.* 157: 81-103 (1979)
23. Zilles, K., Rehkämper, G., Schleicher, A.: A quantitative approach to cytoarchitectonics. V. The areal pattern of the cortex of *Microcebus murinus* (E. Geoffroy, 1828), (Lemuridae, Primates). *Anat. Embryol.* 157: 269-289 (1979)
24. Wree, A., Braak, H., Schleicher, A., Zilles, K.: Biomathematical analysis of the neuronal loss in the aging human brain of both sexes, demonstrated in pigment preparations of the pars cerebellaris loci coerulei. *Anat. Embryol.* 160: 105-119 (1980)
25. Zilles, K., Schleicher, A.: Similarities and differences in the cortical areal patterns of *Galago demidovii* (E. Geoffroy, 1796), (Lorisidae, Primates) and *Microcebus murinus* (E. Geoffroy, 1828), (Lemuridae, Primates). *Folia primatol.* 33: 161-171 (1980)
26. Schleicher, A., Tillmann, B., Zilles, K.: Quantitative analysis of x-ray images with a television image analyser. *Microscopica Acta* 83: 189-196 (1980)

27. Zilles, K., Zilles, B., Schleicher, A.: A quantitative approach to cytoarchitectonics. VI. The areal pattern of the cortex of the albino rat. *Anat. Embryol.* 159: 335-360 (1980)
28. Fleischhauer, K., Zilles, K., Schleicher, A.: A revised cytoarchitectonic map of the neocortex of the rabbit (*Oryctolagus cuniculus*). *Anat. Embryol.* 161: 121-143 (1980)
29. Schleicher, A., Zilles, K., Kretschmann, H.-J.: A Monte-Carlo procedure for stereological analysis of two-dimensional projections of cell nuclei and nucleoli. *Mikroskopie* 37 (Suppl.): 225-228 (1980)
30. Wree, A., Zilles, K., Schleicher, A.: Growth of fresh volumes and spontaneous cell death in the nuclei habenulae of white rats during ontogenesis. *Anat. Embryol.* 161: 419-431 (1981)
31. Wree, A., Zilles, K., Schleicher, A.: A quantitative approach to cytoarchitectonics. VII. The areal pattern of the cortex of the guinea pig. *Anat. Embryol.* 162: 81-103 (1981)
32. Zilles, K., Becker, C.-M., Schleicher, A.: Transmission blockade during neuronal development. Observations on the trochlear nucleus with quantitative histological methods and with ultrastructural and axonal transport studies in the chick embryo. *Anat. Embryol.* 163, 87-123 (1981)
33. Zilles, K., Welsch, U., Schleicher, A.: The telencephalon of *Ichthyophis paucisulcus*. (Amphibia, Gymnophiona (=Caecilia)). A quantitative cytoarchitectonic study. *Z. mikrosk.-anat. Forsch.* 95: 943-962 (1981)
34. Wree, A., Schleicher, A., Zilles, K.: Estimation of volume fractions in nervous tissue with an image analyzer. *J. Neurosci. Meth.* 6, 29-43 (1982)
35. Zilles, K., Becker, C.-M., Schleicher, A.: Nicotinic ACh receptor blockade and the spontaneous nerve cell death in various brain regions. *Bibliothca. anat.* 23: 40-55 (1982)
36. Zilles, K., Schleicher, A., Pehlemann, F.-W.: How many sections must be measured in order to reconstruct the volume of a structure using serial sections. *Microscopica Acta* 86, 339-346 (1982)
37. Zilles, K.: Morphologische Grundlagen der Head'schen Zonen. *Physikal. Therapie* 4, 10-13 (1983)
38. Zilles, K., Blohm, U., Koch, I.: Neurohistologische Methoden. 1. Markscheidenfärbung. *mta praxis* 29, 205-207 (1983)
39. Zilles, K., Tillmann, B., Bennemann, R.: The development of the eye in *Astyanax mexicanus* (Characidae, Pisces), its blind cave derivate, *Anoptichthys jordani* (Characidae, Pisces), and their crossbreeds. *Cell Tiss. Res.* 229, 423-432 (1983)
40. Wree, A., Zilles, K., Schleicher, A.: A quantitative approach to cytoarchitectonics. VIII. The areal pattern of the cortex of the albino mouse. *Anat. Embryol.* 166, 333-353 (1983)
41. Wree, A., Zilles, K.: Ipsilateral projections to the terminal nuclei of the accessory optic system in the albino rat. *Neurosci. Lett.* 43, 19-24 (1983)

42. Schleicher, A., Döring, L., Wree, A., Zilles, K.: Reconstruction of gray value images from unflat surfaces. *Acta stereol.* 2, 81-84 (1983)
43. Oehmichen, M., Zilles, K.: Postmortale DNS- und RNS-Synthese. Erste Untersuchungen an menschlichen Leichen. *Z. Rechtsmed.* 91, 287-294 (1984)
44. Rehkämper, G., Zilles, K., Schleicher, A.: A quantitative approach to cytoarchitectonics. IX. The areal pattern of the hyperstriatum ventrale in the domestic pigeon, *Columba livia* f.d.. *Anat. Embryol.* 169, 319-327 (1984)
45. Zilles, K., Wree, A., Schleicher, A., Divac I.: The monocular and binocular subfields of the rat's primary visual cortex. A quantitative morphological approach. *J. Comp. Neurol.* 226, 391-402 (1984)
46. Glaser, T., Rath, M., Traber, J., Zilles, K., Schleicher, A.: Autoradiographic identification and topographical analysis of high affinity serotonin receptor subtypes as a target for the novel putative anxiolytic TVX Q 7821. *Brain Res.* 358, 129-136 (1985)
47. Wree, A., Kulig, G., Gutmann, P., Zilles, K.: Modification of callosal afferents of the primary visual cortex ipsilateral to the remaining eye in rats monocularly enucleated at different stages of ontogeny. *Cell Tiss. Res.* 242, 433-436 (1985)
48. Zilles, K., Bauschulte Ch., Becker, C.-M.: Alterations of the retina in chick embryos induced by systemic α -bungarotoxin application. *Anat. Embryol.* 171, 97-104 (1985)
49. Rehkämper, G., Zilles, K., Schleicher, A.: A quantitative approach to cytoarchitectonics. X. The areal pattern of the neostriatum in the domestic pigeon, *Columba livia* f.d.. A cyto- and myeloarchitectonical study. *Anat. Embryol.* 171, 345-355 (1985)
50. Zilles, K., Schleicher, A., Glaser, T., Traber, J., Rath, M.: The ontogenetic development of serotonin (5-HT₁) receptors in various cortical regions of the rat brain. *Anat. Embryol.* 172, 255-264 (1985)
51. Wree, A., Angenendt, H.-W., Zilles, K.: The size of the zone of origin of callosal afferents projecting to the primary visual cortex contralateral to the remaining eye in rats monocularly enucleated at different postnatal ages. *Anat. Embryol.* 174, 91-96 (1986)
52. Zilles, K., Werners, R., Büsching, U., Schleicher, A.: Ontogenesis of the laminar structure in the areas 17 and 18 of the human visual cortex. A quantitative study. *Anat. Embryol.* 174, 339-353 (1986)
53. Zilles, K., Rath, M., Schleicher, A., Glaser, T., Traber, J.: Ontogenesis of serotonin (5-HT) binding sites in the choroid plexus of the rat brain. *Brain Res.* 380, 201-203 (1986)
54. Zilles, K., Schleicher, A., Rath, M., Glaser, T., Traber, J.: Quantitative autoradiography of transmitter binding sites with an image analyzer. *J. Neurosci. Meth.* 18, 207-221 (1986)
55. Schleicher, A., Zilles, K., Wree, A.: A quantitative approach to cytoarchitectonics: Software and hardware aspects of a system for the evaluation and analysis of structural inhomogeneities in nervous tissue. *J. Neurosci. Meth.* 18, 221-235 (1986)

56. Armstrong, E., Zilles, K., Schlaug, G., Schleicher, A.: Comparative aspects of the primate posterior cingulate cortex. *J. Comp. Neurol.* 253, 539-548 (1986)
57. Zilles, K., Armstrong, E., Schlaug, G., Schleicher, A.: Quantitative cytoarchitectonics of the posterior cingulate cortex in primates. *J. Comp. Neurol.* 253, 514-524 (1986)
58. Wullen, B., Oehmichen, M., Zilles, K., Saternus, K.-S.: Das Kleinhirn beim plötzlichen Kindstod; qualitative und quantitative Untersuchungen. *Beiträge Gerichtl. Medizin* 45, 217-221 (1987)
59. Linke, P., Oehmichen, M., Zilles, K., Saternus, K.-S.: Hirnstammgliose beim plötzlichen Kindstod: Hypoperfusion oder Retardierung? *Beiträge Gerichtl. Medizin* 45, 227-232 (1987)
60. Wree, A., Zilles, K., Schleicher, A., Horvath, E., Traber, J.: Effect of the 5-HT_{1A} receptor agonist ipsapirone on the local cerebral glucose utilization of the rat hippocampus. *Brain Res.* 436, 283-290 (1987)
61. Hajós, F., Zilles, K., Gallatz, K., Schleicher A., Kaplan, I., Werner, L.: Ramification patterns of vasoactive intestinal polypeptide (VIP)-cells in the rat primary visual cortex. An immunohistochemical study. *Anat. Embryol.* 178, 197-206 (1988)
62. Hajós, F., Zilles, K., Schleicher, A., Kálmán, M.: Types and spatial distribution of vasoactive intestinal polypeptide (VIP)-containing synapses in the rat visual cortex. *Anat. Embryol.* 178, 207-217 (1988)
63. Zilles, K., Rehkämper, G.: The initial brain concept, a work in progress. *Behav. Brain Sci.* 11, 105-106 (1988)
64. Wree, A., Schleicher, A., Zilles, K., Beck, T.: Local cerebral glucose utilization in the Ammon's horn and dentate gyrus of the rat brain. *Histochemistry* 88, 415-426 (1988)
65. Weller, M., Wiedemann, P., Heimann, K., Zilles, K.: The significance of fibronectin in vitreoretinal pathology. A critical evaluation. *Graefe's Arch. Clin. Exp. Ophthalmol.* 226: 294-298 (1988)
66. Weller, M., Wiedemann, P., Heimann, K., Zilles, K.: Fibronectin quantification in plasma and vitreous by a noncompetitive ELISA technique. *Doc. Ophthalmol.* 69: 341-351 (1988)
67. Hajós, F. und Zilles, K.: Immunohistochemical analysis of VIP-neurons in the brain. *Histochemistry.* 90, 139-144 (1988)
68. Zilles, K., Schleicher, A., Rath, M., Bauer, A.: Quantitative receptor autoradiography in the human brain. Methodical aspects. *Histochemistry* 90, 129-137 (1988)
69. Oehmichen, M., Frasunek, J., Zilles, K.: Kinetics of epidermal cells in skin from human cadavers. *Naturwissenschaften* 75: 399 (1988)
70. Oehmichen, M., Frasunek, J., Zilles, K.: Cytokinetics of epidermic cells in skin from human cadavers. I. Dependency on the postmortal interval. *Z. Rechtsmed.* 101: 161-171 (1988)

71. Oehmichen, M., Frasunek, J., Zilles, K.: Cytokinetics of epidermic cells in skin from human cadavers. II. Dependency on sex, age and site. *U. Rechtsmed.* 101: 173-182 (1988)
72. Zilles, K., Armstrong, E., Schleicher, A., Kretschmann, H.-J.: The human pattern of gyrification in the cerebral cortex. *Anat. Embryol.* 179, 173-179 (1988)
73. Schröder, H., Zilles, K., Maelicke, A., Hajós, F.: Immunohisto- and cytochemical localization of cortical nicotinic cholinergic receptors in rat and man. *Brain Res.* 502: 287-295 (1989)
74. Rauch, F., Schleicher, A., Zilles, K.: Recognition of the retrograde reaction in motoneurons using an image analysing system. *J. Neurosci. Methods* 30: 255-262 (1989)
75. Zilles, K., Armstrong, E., Moser, K.H., Schleicher A., Stephan, H.: Gyrification in the cerebral cortex of primates. *Brain Behav. Evolut.* 34, 143-150 (1989)
76. Oehmichen, M., Wullen, B., Zilles, K., Saternus, K.-S.: Cytological investigations on the cerebellar cortex of sudden infant death victims. *Acta Neuropathol.* 78, 404-409 (1989)
77. Zilles, K., Wree, A., Petrovic-Minic, B., Schleicher, A., Beck, T.: Different metabolic changes in the lateral geniculate nucleus and the superior colliculus of adult rats after simultaneous or delayed double enucleation. *Brain Res.* 488, 14-21 (1989)
78. Steinmetz, H., Rademacher, J., Huang, Y., Hefter, H., Zilles, K., Thron, A., Freund, H.-J.: Cerebral asymmetry: MR planimetry of the human planum temporale. *J. Comp. Assist. Tomogr.* 13: 996-1005 (1989)
79. Wree, A., Beck, T., Bielenberg, G.W., Schleicher, A., Zilles, K.: Local cerebral glucose utilization in the autoimmune New Zealand Black (NZB) mouse. *Histochemistry* 92: 343-348 (1989)
80. Schröder, H., Zilles, K., Luiten, P.G.M., Strosberg, A.D., Aghchi, A.: Human cortical neurons contain both nicotinic and muscarinic acetylcholine receptors. An immunohistochemical double-labelling study. *Synapse* 4: 319-326 (1989)
81. Oehmichen, M., Linke, P., Zilles, K., Saternus, K.S.: Reactive astrocytes and macrophages in the brain stem of SIDS victims? Eleven age- and sex-matched SIDS and control cases. *Clin. Neuropathol.* 8: 276-283 (1989)
82. Oehmichen, M., Frasunek, J., Zilles, K.: DNA synthesis in cells of human cadavers. *Acta Histochem.* 37: 241-246 (1989)
83. Ahrens, P., Schleicher, A., Zilles, K., Werner, L.: Image analysis of Nissl-stained neuronal perikarya in the primary visual cortex of the rat: Automatic detection and segmentation of neuronal profiles with nuclei and nucleoli. *J. Microscopy* 157: 349-365 (1990)
84. Schleicher, A. und Zilles, K.: A quantitative approach to cytoarchitectonics: Analysis of structural inhomogeneities in nervous tissue using an image analyser. *J. Microscopy* 157: 367-381 (1990)

85. Wree, A., Zilles, K., Schleicher, A.: Local cerebral glucose utilization in the neocortical areas of the rat brain. *Anat. Embryol.* 181: 603-614 (1990)
86. Schröder, H., Zilles, K., Luiten, P.G.M., Strosberg, A.D.: Immunocytochemical visualization of muscarinic cholinergic receptors in the human cerebral cortex. *Brain Res.* 514: 249-258 (1990)
87. Rauch, F.H., Schleicher, A., Zilles, K.: Quantitative analysis of the retrograde reaction of motoneurons with an image analyser. *Anat. Embryol.* 181: 373-379 (1990)
88. Hajós, F., Kálmán, M., Zilles, K., Schleicher, A., Sótónyi, P.: Remote astrocytic response as demonstrated by glial fibrillary acidic protein immunohistochemistry in the visual cortex of dorsal lateral geniculate nucleus lesioned rats. *Glia* 3: 301-310 (1990)
89. Steinmetz, H., Rademacher, J., Jäncke, L., Huang, Y., Thron, A., Zilles, K.: Total surface of temporoparietal intrasylvian cortex: Diverging left-right asymmetries. *Brain and Language* 39: 357-372 (1990)
90. Stichel, C.C., Singer, W., Zilles, K.: Ultrastructure of PKC(II/III)-immunopositive structures in rat primary visual cortex. *Exp. Brain Res.* 82: 575-584 (1990)
91. Zilles, K., zur Nieden, K., Schleicher, A., Traber, J.: A new method for quenching correction leads to revisions of data in receptor autoradiography. *Histochemistry* 94: 569-578 (1990)
92. Prokop, A., Oehmichen, M., Zilles, K.: Geschlechtsdimorphismus des Corpus callosum? *Beiträge Gerichtl. Medizin* 48: 263-270 (1990)
93. Horváth, E., Warmuth, I., Zilles, K., Traber, J.: Effects of the 1,4-dihydropyridine-sensitive L-type calcium channel antagonist nimodipine and calcium channel activator BAY K 8644 on local cerebral glucose utilization in the rat. *Stroke* 21: IV126-IV129 (1990)
94. Hajós, F., Zilles, K., Gallatz, K.: Vasoactive intestinal polypeptide (VIP) containing cells in the developing rat occipital hemisphere *Anat. Embryol.* 182: 69-78 (1990)
95. Fink, G., Zilles, K. und Schleicher, A.: Postnatal development of forebrain regions in the autoimmune NZB-mouse. A model for degeneration in neuronal systems. *Anat. Embryol.* 183: 579-588 (1991)
96. Rehkämper, G., Schuchmann, K.-L., Schleicher, A., Zilles, K.: Encephalization in hummingbirds (Trochilidae). *Brain Behav. Evol.* 37: 85-91 (1991)
97. Stichel, C.C., Müller, C.M., Zilles, K.: Distribution of glial fibrillary acidic protein and vimentin-immunoreactivity during rat visual cortex development. *J. Neurocytol.* 20: 97-108 (1991)
98. Zilles, K., Hajós, F., Kálmán, M., Schleicher, A.: Mapping of glial fibrillary acidic protein-immunoreactivity in the rat forebrain and mesencephalon by computerized image analysis. *J. Comp. Neurol.* 308: 340-355 (1991)

99. Zilles, K., Kálmán, M., Hajós, F., Schleicher, A.: Developmental gradients of vasoactive intestinal polypeptide (VIP)-containing neurons in the visual cortex detected by image analysis. *Developm. Brain Res.* 60: 137-144 (1991)
100. Schröder, H., Giacobini, E., Struble, R.G., Zilles, K., Maelicke, A.: Nicotinic cholinergic neurons of the frontal cortex are reduced in Alzheimer's disease. *Neurobiol. Aging* 12: 259-262 (1991)
101. Armstrong, E., Zilles, K., Curtis, M., Schleicher, A.: Cortical folding, the lunatic sulcus and the evolution of the human brain. *J. Human Evol.* 20: 341-348 (1991)
102. Zilles, K., Gross, G., Schleicher, A., Schildgen S., Bauer, A., Bahro, M., Schwendemann, G., Zech, K., Kolassa, N.: Regional and laminar distribution of α_1 -adrenoceptors and their subtypes in human and rat hippocampus. *Neuroscience* 40: 307-320 (1991)
103. Zilles, K., Werner, L., Qü, M., Gross, G.: Quantitative autoradiography of 11 different transmitter binding sites in the basal forebrain region of the rat. Evidence of heterogeneity in distribution patterns. *Neuroscience* 42: 473-481 (1991)
104. Grisanti, S., Wiedemann P., Weller, M., Heimann, K., Zilles, K.: The significance of complement in proliferative vitreoretinopathy. *Invest. Ophthalmol. Visual Sci.* 32: 2711-2717 (1991)
105. Schröder, H., Giacobini, E., Struble, R.G., Luiten, P.G.M., van der Zee, E.A., Zilles, K., Strosberg, A.D.: Muscarinic cholinergic neurons in the frontal cortex in Alzheimer's disease. *Brain Res. Bull.* 27: 631-636 (1991)
106. Zilles, K., Qü, M., Schröder, H., Schleicher, A.: Neurotransmitter receptors and cortical architecture. *J. Hirnforsch.* 32: 343-356 (1991)
107. Rehkämper, G., Zilles, K.: Parallel evolution in mammalian and avian brains: Comparative cytoarchitectonic and cytochemical analysis. *Cell Tiss. Res.* 263: 3-28 (1991)
108. Rehkämper, G., Frahm, H.D., Zilles, K.: Quantitative development of brain and brain structures in birds (Galliformes and Passeriformes) compared to that in mammals (Insectivores and Primates). *Brain, Behavior Evol.* 37: 125- 143 (1991)
109. Naas, E., Zilles, K., Gnahn, H., Betz, H., Becker, C.-M., Schröder, H.: Glycine receptor immunoreactivity in rat and human cerebral cortex. *Brain Res.* 561: 139-146 (1991)
110. Zilles, K. and Schleicher, A.: Quantitative receptor autoradiography and image analysis. *Bulletin de l'Association des Anatomistes* 75: 117-121 (1991)
111. Wree, A., Kaefer, C., Birgel, B., Schleicher, A., Horvath, E., Zilles, K.: Local cerebral glucose utilization in the brain of old, learning impaired rats. *Histochemistry* 95: 591-603 (1991)
112. Armstrong, E., Curtis, M., Buxhoeveden, D.P., Fregoe, M., Zilles, K., Casanova, M.F., McCarthy, W.F.: Cortical gyrification in the rhesus monkey: A test of the mechanical folding hypothesis. *Cerebral Cortex* 1: 426-432 (1991)

113. Zilles, K.: Funktionelle Anatomie der Hirnalterung. *Geriatric Praxis* 10: 44-49 (1991)
114. Schröder, H., Giacobini, E., Struble, R.G., Zilles, K., Maelicke, A., Luiten, P.G.M., Strosberg, A.D.: Cellular distribution and expression of cortical acetylcholine receptors in aging and Alzheimer's disease. *Ann. New York Acad. Sci.* 640: 189-192 (1991)
115. Clausen, R., Weller, M., Wiedemann, P., Heimann, K., Hilgers, R.D., Zilles, K.: An immunochemical quantitative analysis of the protein pattern in physiological and pathologic vitreous. *Graefes Arch. Clin. Exp. Ophthalmol.* 229: 186-190 (1991)
116. Bauer, A., Schulz, J.-B., Zilles, K.: Muscarinic desensitization after septal lesions in rat hippocampus: Evidence for the involvement of G-proteins. *Neuroscience* 47: 95-103 (1992)
117. Zilles, K.: Neurotransmitter receptors in the forebrain: regional and laminar distribution. *Progr. Histochem. Cytochem.* 26: 229-240 (1992).
118. Zilles, K.: Neuronal plasticity as an adaptive property of the central nervous system. *Annal. Anat.* 174: 383-391 (1992).
119. Schulz, J.-B., Wree, A., Schleicher, A., Zilles, K.: Plasticity in the rat hippocampal formation following ibotenic acid lesion of the septal region: A quantitative [¹⁴C]deoxyglucose and acetylcholinesterase study. *J. Cerebral Blood Flow Metabol.* 12: 1007-1021 (1992)
120. Kugler, P., Schleicher, A., Zilles, K., Horváth, E.: Acetylcholinesterase activity and post-lesional plasticity in the hippocampus of young and aged rats. *Neuroscience* 55: 91-103 (1993)
121. Kálmán, M., Csillag, A., Schleicher, A., Rind, C., Hajós, F., Zilles, K.: Long-term effects of anterograde degeneration on astroglial reaction in the rat geniculo-cortical system as revealed by computerized image analysis. *Anat. Embryol.* 187: 1-7 (1993)
122. Csillag, A., Hajós, F., Zilles, K., Schleicher, A., Schröder, H.: Matching localization of vasoactive intestinal polypeptide (VIP) and VIP-receptor at pre- and postsynaptic sites in the mouse visual cortex. *J. Neurocytol.* 22: 491-497 (1993)
123. Reuter, G., Zilles, K.: Reduction of naturally-occurring cell death by kainic acid in the retina of chick embryos. *Ann. Anat.* 175: 243-251 (1993)
124. Schlaug, G., Armstrong, E., Schleicher, A., Zilles, K.: Layer V pyramidal cells in the adult human cingulate cortex. A quantitative Golgi-study. *Anat. Embryol.* 187: 515-522 (1993).
125. Zilles, K., Qü, M., Schleicher, A.: Regional distribution and heterogeneity of α_2 -adrenoceptors in the rat and human central nervous system. *J. Hirnforsch.* 34: 123-132 (1993).
126. Lehmenkühler, A., Syková, E., Svoboda, J., Zilles, K., Nicholson, C.: Extracellular space parameters in the rat neocortex and subcortical white matter during postnatal development determined by diffusion analysis. *Neuroscience* 55: 339-351 (1993)

127. Gebhard, R., Zilles, K., Schleicher, A., Everitt, B.J., Robbins, T.W., Divac, I.: Quantitative autoradiography of seven major neurotransmitter receptors in the striate cortex of the new world monkey *Callithrix jacchus*. *Neuroscience* 56: 877-885 (1993)
128. Zilles, K., Hajós, F., Csillag, A., Kálmán, M., Sotonyi, P., Schleicher, A.: Vasoactive intestinal polypeptide immunoreactive structures in the mouse barrel field. *Brain Res.* 618: 149-154 (1993)
129. Divac, I., Mogensen, J., Petrovic-Minic, B., Zilles, K., Regidor, J.: Cortical projections of the thalamic mediodorsal nucleus in the rat. Definition of the prefrontal cortex. *Acta Neurobiol. Exp.* 53: 425-429 (1993)
130. Schormann, T., v. Matthey, M., Dabringhaus, A., Zilles, K.: Alignment of 3-D brain data sets originating from MR and histology. *Bioimaging* 1: 119-128 (1993)
131. Armstrong, E., Zilles, K., Schleicher, A.: Cortical folding and the evolution of the human brain. *J. Human Evol.* 25: 387-392 (1993)
132. Matschke, R.G., Stenzel, C., Plath, P., Zilles, K.: Maturation aspects of the human auditory pathway: Anatomical and electrophysiological findings. *J. Oto-Rhino-Laryngol. (Basel)* 56: 68-72 (1994)
133. Qü, M., Lü, Z., Zilles, K.: Aging of nucleolar organizer region in rat basal forebrain neurons related to learning and memory. *Ann. Anat.* 176: 39-43 (1994)
134. Arnault, P., Ebrahimi-Gaillard, A., Roger, M., Zilles, K.: Electron microscopic demonstration of terminations of posterior thalamic axons on identified rubrospinal neurons in the rat. *Anat. Embryol.* 189: 383-392 (1994)
135. Frahm, H. and Zilles, K.: Volumetric comparison of hippocampal regions in 44 primate species. *J. Brain Res.* 35: 343-354 (1994)
136. Roland, P.E., Graufelds, C.J., Wåhlin, J., Ingelman, L., Andersson, M., Ledberg, A., Pedersen, J., Åkerman, S., Dabringhaus, A., Zilles, K.: Human brain atlas: For high-resolution functional and anatomical mapping. *Human Brain Mapping* 1: 173-184 (1994).
137. Roland, P.E., Zilles, K.: Brain atlases - A new research tool. *TINS* 17: 458-467 (1994) IF: 13,582
138. Kraemer, M., Zilles, K., Schleicher, A., Gebhard, R., Robbins, T.W., Everitt, B.J., Divac, I.: Quantitative receptor autoradiography of 8 different transmitter binding sites in the hippocampus of the common marmoset, *Callithrix jacchus*. *Anat. Embryol.* 191: 213-225 (1995)
139. Gebhard, R., Zilles, K., Schleicher, A., Everitt, B.J., Robbins, T.W., Divac, I.: Parcellation of the frontal cortex of the New World monkey *Callithrix jacchus* by eight neurotransmitter binding sites. *Anat. Embryol.* 191: 509-517 (1995)
140. Armstrong, E., Zilles, K., Omran, H., Schleicher, A.: The ontogeny of human gyrification. *Cerebral Cortex* 5: 56-63 (1995)

141. Divac, I., Regidor, J., Milosevic, S., Mogensen, J., Zilles, K.: Afferents to different layers of the dorsolateral isocortex in rats. *Anat. Embryol.* 192: 63-75 (1995)
142. Schlaug, G., Schleicher, A., Zilles, K.: Quantitative analysis of the columnar arrangement of neurons in the human cingulate cortex. *J. Comp. Neurol.* 351: 441-452 (1995).
143. Schormann, T., Dabringhaus, A., Zilles, K.: Statistics of deformations in histology and application to improved alignment with MRI. *IEEE Transactions on Medical Imaging* 14: 25-35 (1995)
144. Zilles, K., Qü, M., Schleicher, A., Schroeter, M., Kraemer, M., Witte, O.W.: Plasticity and neurotransmitter receptor changes in Alzheimer's disease and experimental cortical infarcts. *Drug Research* 45: 361-366 (1995)
145. Gilissen, E. and Zilles, K.: The relative volume of the primary visual cortex and its intersubject variability among humans: a new morphometric study. *C. R. Acad. Sci. Paris, Série 2a*, 320:897-902 (1995)
146. Hajós, F. and Zilles, K.: Areas of dormant glial fibrillary acidic protein (GFAP) immunoreactivity in the rat brain as revealed by automated image analysis of serial coronal sections. *Neurobiol.* 3:3-11 (1995)
147. Zilles, K., Schlaug, G., Matelli, M., G. Luppino, Schleicher, A., Qü, M., Dabringhaus, A., Seitz, R., Roland, P.E.: Mapping of human and macaque sensorimotor areas by integrating architectonic, transmitter receptor, MRI and PET data. *J. Anatomy* 187: 515-537 (1995)
148. Gilissen, E., Iba-Zizen, M.-T., Stievenart, J.-L., Lopez, A., Trad, M., Cabanis, E.A., Zilles, K.: Is the length of the calcarine sulcus associated with the size of the human visual cortex? A morphometric study with magnetic resonance tomography. *J. Brain Res.* 36: 451-460 (1995)
149. Amunts, K., Istomin, V., Schleicher, A., Zilles, K.: Postnatal development of the human primary motor cortex: A quantitative cytoarchitectonic analysis. *Anat. Embryol.* 192: 557-571 (1995)
150. Staiger, J.F., Zilles, K., Freund, T.F.: Innervation of VIP-immunoreactive neurons by the ventroposteromedial thalamic nucleus in the barrel cortex of the rat. *J. Comp. Neurol.* 367: 194-204 (1996)
151. Gilissen, E. and Zilles, K.: The calcarine sulcus as an estimate of the total volume of the human striate cortex: A morphometric study of reliability and intersubject variability. *J. Brain Res.* 37: 57-66 (1996)
152. Gilissen, E., Dabringhaus, A., Schlaug, G., Schormann, T., Steinmetz, H., Zilles, K.: Structural asymmetries in the cortical shape of humans and common chimpanzees: a comparative study with magnetic resonance tomography. *Proc. 3rd Joint Symposium on Neural Computation, Institute for Neural Computation at UCSD, Techn. Rep. Ser. 6: 88-102* (1996)

153. Staiger, J.F., Zilles, K., Freund, T.F.: Distribution of GABAergic elements postsynaptic to ventroposteromedial thalamic projections in layer IV of rat barrel cortex. *Europ. J. Neurosci.* 8: 2273-2285 (1996)
154. Zilles, K., Dabringhaus, A., Geyer, S., Amunts, K., Qü, M., Schleicher, A., Gilissen, E., Schlaug, G., Steinmetz, H.: Structural asymmetries in the human forebrain and the forebrain of non-human primates and rats. *Neurosci. Biobehav. Rev.* 20: 593-605 (1996)
155. Amunts, K., Schlaug, G., Schleicher, A., Steinmetz, H., Dabringhaus, A., Roland, P.E., Zilles, K.: Asymmetry in the human motor cortex and handedness. *NeuroImage* 4: 216-222 (1996)
156. Schwegler, H., Boldyreva, M., Pyrlik-Göhlmann, M., Linke, R., Wu, J., Zilles, K.: Genetic variation in the morphology of the septo-hippocampal cholinergic and GABAergic system in mice. I. Cholinergic and GABAergic markers. *Hippocampus* 6: 136-148 (1996)
157. Schwegler, H., Boldyreva, M., Linke, R., Wu, J., Zilles, K., Crusio, W.E.: Genetic variation in the morphology of the septo-hippocampal cholinergic and GABAergic systems in mice. II. Morpho-behavioral correlations. *Hippocampus* 6: 535-545 (1996)
158. Geyer, S., Ledberg, A., Schleicher, A., Kinomura, S., Schormann, T., Bürgel, U., Klingberg, T., Larsson, J., Zilles, K., Roland, P.E.: Two different areas within the primary motor cortex of man. *Nature* 382: 805-807 (1996) IF: 36,28
159. Staiger, J.F., Zilles, K., Freund, T.F.: Recurrent axon collaterals of corticothalamic projection neurons in rat primary somatosensory cortex contribute to excitatory and inhibitory feedback-loops. *Anat. Embryol.* 194: 533-543 (1996)
160. Schiene, K., Bruehl, C., Zilles, K., Qü, M.S., Hagemann, G., Kraemer, M., Witte, O.W.: Neuronal hyperexcitability and reduction of GABA_A-receptor expression in the surround of cerebral photothrombosis. *J. Cerebral Blood Flow Metabol.* 16: 906-914 (1996)
161. Wosinski, M., Schleicher, A., Zilles, K.: Quantitative analysis of gyrification of cerebral cortex in dogs. *Neurobiol.* 4: 441-468 (1996)
162. Schormann, T., Henn, S., Zilles, K.: A new approach to fast elastic alignment with applications to human brains. *Lect. Notes Comput. Sc.* 1131: 337-342 (1996)
163. Roland, P.E., Zilles, K.: The developing European Computerized Human Brain Database for all imaging modalities. *NeuroImage* 4: 39-47 (1996)
164. Roland, P.E., Zilles, K.: Functions and structures of the motor cortices in man. *Current Opinion in Neurobiol.* 6: 773-781 (1996)
165. Witte, O.W., Buchkremer-Ratzmann, I., Schiene, K., Neumann-Haefelin, T., Hagemann, G., Kraemer, M., Zilles, K., Freund, H.-J.: Lesion-induced network plasticity in remote brain areas. *TINS* 20: 348 (1997) IF: 13,582
166. Amunts, K., Schlaug, G., Jäncke, L., Steinmetz, H., Schleicher, A., Dabringhaus, A., Zilles, K.: Motor cortex and hand motor skills: Structural compliance in the human brain. *Human Brain Mapping* 5: 206-215 (1997)

167. Herschkowitz, N., Kagan, J., Zilles, K.: Neurobiological bases of behavioural development in the first year. *Neuropediatrics* 28: 296-306 (1997)
168. Amunts, K., Schleicher, A., Zilles, K.: Persistence of layer IV in the primary motor cortex (area 4) of children with cerebral palsy. *J. Brain Res.* 38: 247-260 (1997)
169. Bidmon, H.-J., Wu, J., Gödecke, A., Schleicher, A., Mayer, B., Zilles, K.: Nitric oxide synthase-expressing neurons are area-specifically distributed within the cerebral cortex of the rat. *Neuroscience* 81: 321-330 (1997)
170. Bayraktar, T., Staiger, J.F., Acsady, L., Cozzari, C., Freund, T.F., Zilles, K.: Co-localization of vasoactive intestinal polypeptide, γ -aminobutyric acid and choline acetyltransferase in neocortical interneurons of the adult rat. *Brain Research* 757: 209-217 (1997)
171. Geyer, S., Schleicher, A., Zilles, K.: The somatosensory cortex of human: Cytoarchitecture and regional distributions of receptor-binding sites. *NeuroImage* 6: 27-45 (1997)
172. Zilles, K., Schleicher, A., Langemann, C., Amunts, K., Morosan, P., Palomero-Gallagher, N., Schormann, T., Mohlberg, H., Bürgel, U., Steinmetz, H., Schlaug, G., Roland, P.E.: Quantitative analysis of sulci in the human cerebral cortex: Development, regional heterogeneity, gender difference, asymmetry, intersubject variability and cortical architecture. *Human Brain Mapping* 5: 218-221 (1997)
173. Staiger, J., Freund, T.F., Zilles, K.: Interneurons immunoreactive for vasoactive intestinal polypeptide (VIP) are extensively innervated by parvalbumin-containing boutons in rat primary somatosensory cortex. *Europ. J. Neurosci.* 9: 2259-2268 (1997)
174. Hajós, F., Staiger, J.F., Halasy, K., Freund, T.F., Zilles, K.: Geniculo-cortical afferents form synaptic contacts with vasoactive intestinal polypeptide (VIP) immunoreactive neurons of the rat visual cortex. *Neurosci. Lett.* 228: 179-182 (1997)
175. Roland, P.E., Geyer, S., Amunts, K., Schormann, T., Schleicher, A., Malikovic, A., Zilles, K.: Cytoarchitectural maps of the human brain in standard anatomical space. *Human Brain Mapping* 5: 222-227 (1997)
176. Bidmon, H.J., Oermann, E., Schleicher, A., Kato, K., Kinscherf, R., Witte, O.W., Zilles, K.: Copper-zinc superoxide dismutase and isolectin B₄ binding are markers for associative and transhemispheric diaschisis induced by focal ischemia in rat cortex. *Neurosci. Lett.* 228: 163-166 (1997)
177. Amunts, K., Schmidt-Passos, F., Schleicher, A., Zilles, K.: Postnatal development of interhemispheric asymmetry in the cytoarchitecture of human area 4. *Anat. Embryol.* 196: 393-402 (1997)
178. Bürgel, U., Mecklenburg, I., Zilles, K.: Histological visualization of long fiber tracts in the white matter of adult human brains. *J. Brain Res.* 38: 397-404 (1997)

179. Schormann, T., Zilles, K.: Limitations of the principle axes theory. *IEEE Transactions on Medical Imaging* 16: 942-947 (1997)
180. Bidmon, H.-J., Wu, J., Buchkremer-Ratzmann, I., Mayer, B., Witte, O.W., Zilles, K.: Transient changes in the presence of NO-synthases and nitrotyrosine immuno-reactivity after focal cortical ischemia. *Neuroscience* 82: 377-395 (1998)
181. Bidmon, H.-J., Jancsik, V., Schleicher, A., Hagemann, G., Witte, O.W., Woodhams, P., Zilles, K.: Structural alterations and changes in cytoskeletal proteins and proteoglycans after focal cortical ischemia. *Neuroscience* 82:397-420 (1998)
182. Langen, K.-J., Clauss R.P., Holschbach, M., Mühlensiepen, H., Kiwit, J.C.W., Zilles, K., Coenen, H.H., Müller-Gärtner, H.-W.: Comparison of iodotyrosines and methionine uptake in a rat glioma model. *J. Nucl. Med.* 39: 1596-1599 (1998)
183. Hajós, F., Zilles, K., Zsarnovsky, A., Sótonyi, P., Gallatz, K., Schleicher, A.: Modular distribution of vasoactive intestinal polypeptide in the rat barrel cortex: changes induced by neonatal removal of vibrissae. *Neuroscience* 85: 45-52 (1998)
184. Mittmann, T., Qü, M., Zilles, K., Luhmann, H.J.: Long-term cellular dysfunction after focal cerebral ischemia: In vitro analyses. *Neuroscience* 85: 15-27 (1998)
185. Qü, M.S., Mittmann, T., Luhmann, H., Schleicher, A., Zilles, K.: Long-term changes of ionotropic glutamate and GABA receptors after unilateral permanent focal cerebral ischemia in the mouse brain. *Neuroscience* 85: 29-43 (1998).
186. Kötter, R., Staiger, J.F., Zilles, K., Luhmann, H.J.: Analyzing functional connectivity in brain slices by a combination of infrared video microscopy, flash photolysis of caged compounds and scanning methods. *Neuroscience* 86: 265-277 (1998)
187. Bidmon, H.J., Kato, K., Schleicher, A., Witte, O.W., Zilles, K.: Transient increase of manganese-superoxide dismutase in remote brain areas after focal photothrombotic cortical lesion. *Stroke* 29: 203-211 (1998)
188. Semendeferi, K., Armstrong, E., Schleicher, A., Zilles, K., Van Hoesen, G.W.: Limbic frontal cortex in hominoids: A comparative study of area 13. *Am. J. Phys. Anthropol.* 106: 129-155 (1998)
189. Geyer, S., Matelli, M., Luppino, G., Schleicher, A., Jansen, Y., Palomero-Gallagher, N., Zilles, K.: Receptor autoradiographic mapping of the mesial motor and premotor cortex of the rhesus monkey. *J. Comp. Neurol.* 397: 231-250 (1998)
190. Luhmann, H.J., Karpuk, N., Qü, M., Zilles, K.: Characterization of neuronal migration disorders in neocortical structures: Intracellular in vitro recordings. *J. Neurophysiol.* 80: 92-102 (1998)
191. Luhmann, H.J., Raabe, K., Qü, M., Zilles, K.: Characterization of neuronal migration disorders in neocortical structures: Extracellular in vitro recordings. *Europ. J. Neurosci.* 10: 3085-3094 (1998)

192. Zilles, K., Qü, M., Schleicher, A., Luhmann, H.J.: Characterization of neuronal migration disorders in neocortical structures: Quantitative receptor autoradiography of ionotropic glutamate, GABA_A and GABA_B receptors. *Europ. J. Neurosci.* 10: 3095-3106 (1998)
193. Frahm, H., Zilles, K., Schleicher, A., Stephan, H.: The size of the middle temporal area in primates. *J. Brain Res.* 39: 45-54 (1998)
194. Oermann, E., Bidmon, H.-J., Schleicher, A., Mayer, B., Schwegler, H., Zilles, K.: The distribution of nitric oxide synthase-I and NADPH-diaphorase containing neurons in the cerebral cortex of different strains of mice and its association with learning and memory. *J. Brain Res.* 39: 65-75 (1998)
195. Roland, P.E., Zilles, K.: Structural divisions and functional fields in the human cerebral cortex. *Brain Res. Rev.* 26: 87-105 (1998)
196. Neumann-Haefelin, T., Staiger, J.F., Redecker, C., Zilles, K., Fritschy, J.-M., Möhler, H., Witte, O.W.: Immunohistochemical evidence for dysregulation of the GABAergic system ipsilateral to photochemically induced cortical infarcts in rats. *Neuroscience* 87: 871-879 (1998)
197. Schormann, T., Zilles, K.: Three-dimensional linear and nonlinear transformations: An integration of light microscopical and MRI data. *Human Brain Mapping* 6: 339-347 (1998)
198. Qü, M., Buchkremer-Ratzmann, I., Schiene, K., Schroeter, M., Witte, O.-W., Zilles, K.: Bihemispheric reduction of GABA_A receptor binding following focal cortical photothrombotic lesions in the rat brain. *Brain Res.* 813: 374-380 (1998)
199. Staiger, J.F., Kötter, R., Zilles, K., Luhmann, H.J.: Translaminar excitability of cortical layer V in slices of rat primary somatosensory (barrel) cortex (S1) – probed flash-evoked release of caged glutamate. *Europ. J. Neurosci.* (1998)
200. Schleicher, A., Amunts, K., Geyer, S., Kowalski, T., Zilles, K.: An observer-independent cytoarchitectonic mapping of the human cortex using a stereological approach. *Acta Stereologica* 17: 75-82 (1998)
201. Colombo, J.A., Schleicher, A., Zilles, K.: Patterned distribution of immunoreactive astroglial processes in the striate (V1) cortex of new world monkeys. *Glia* 25: 85-92 (1999)
202. Schleicher, A., Amunts, K., Geyer, S., Morosan, P., Zilles, K.: Observer-independent method for microstructural parcellation of cerebral cortex: A quantitative approach to cytoarchitectonics. *Neuroimage* 9: 165-177 (1999)
203. Staiger, J.F., Kötter, R., Zilles, K., Luhmann, H.J.: Connectivity in the somatosensory cortex of the adolescent rat: an in vitro biocytin study. *Anat. Embryol.* 199: 357-365 (1999)
204. Oermann E, Bidmon H-J, Mayer B, Zilles K.: Differential maturational patterns of nitric oxide synthase-I and NADPH-diaphorase in functionally distinct cortical areas of the mouse cerebral cortex. *Anat. Embryol.* 200: 27-41 (1999)

205. Hilbig, H., Bidmon, H.-J., Zilles, K., Busecke, K.: Neuronal and glial structures of the superficial layers of the human superior colliculus. *Anat. Embryol.* 200: 103-115 (1999)
206. Rademacher, J., Engelbrecht, V., Bürgel, U., Freund, H.-J., Zilles, K.: Measuring in vivo myelination of human white matter fiber tracts with magnetization transfer MR. *NeuroImage* 9: 393-406 (1999)
207. Uylings, H.B.M., Zilles, K., Rajkowska, G.: Optimal staining methods for delineation of cortical areas and neuron counts in human brains. *NeuroImage* 9: 439-445 (1999)
208. Bidmon, H.-J., Wu, J., Palomero-Gallagher, N., Oermann, E., Mayer, B., Schleicher, A., Zilles, K.: Different nitric oxide synthase inhibitors cause rapid and differential alterations in the ligand-binding capacity of transmitter receptors in the rat cerebral cortex. *Ann. Anat.* 181: 345-351 (1999)
209. Que, M., Witte, O.W., Neumann-Haefelin, T., Schiene, K., Schroeter, M., Zilles, K.: Changes of GABA_A and GABA_B receptor binding following cortical photothrombosis: A quantitative receptor autoradiographic study. *Neuroscience* 93: 1233-1240 (1999)
210. Stephan, K.M., Binkofski, F., Halsband, U., Dohle, C., Wunderlich, G., Schnitzler, A., Tass, P., Posse, S., Herzog, H., Sturm, V., Zilles, K., Seitz, R.J., Freund, H.-J.: The role of ventral medial motor areas in bimanual co-ordination. A combined lesion and activation study. *Brain* 122: 351-368 (1999) IF: 9,915
211. Geyer, S., Schleicher, A., Zilles, K.: Areas 3a, 3b, and 1 of human primary somatosensory cortex: 1. Microstructural organization and interindividual variability. *NeuroImage* 10: 63-83 (1999)
212. Kawasaki, Y., Schleicher, A., Falkai, P., Bogerts, B., Koshino, Y., Zilles, K.: Neuropathological postmortem investigation of prefrontal cortex (Area 10) in schizophrenia (jap.). *Brain Science Mental Disorders* 9: 251-258 (1999)
213. Amunts, K., Schleicher, A., Bürgel, U., Mohlberg, H., Uylings, H.B.M., Zilles, K.: Broca's region revisited: Cytoarchitecture and intersubject variability. *J. Comp. Neurol.* 412: 319-341 (1999)
214. Köhling R., Qü M., Zilles K. and Speckmann E.-J.: Current-source-density profiles associated with sharp waves in human epileptic neocortical tissue. *Neuroscience* 94: 1039-1050 (1999)
215. Zilles, K., Qü, M.S., R. Köhling, R., Speckmann, E.-J.: Ionotropic glutamate and γ -aminobutyric acid receptors in human epileptic neocortical tissue: Quantitative in vitro receptor autoradiography. *Neuroscience* 94: 1051-1061 (1999)
216. Naito, E., Ehrsson, H.H., Geyer, S., Zilles, K., Roland, P.E.: Illusory arm movements activate cortical motor areas: A positron emission tomography study. *J. Neurosci.* 19: 6134-6144 (1999)
217. Larsson, J., Amunts, K., Gulyás, B., Malikovic, A., Zilles, K., Roland, P.E.: Neuronal correlates of real and illusory contour perception: functional anatomy with PET. *Europ. J. Neurosci.* 11: 4024-4036 (1999)

218. Que, M., Schiene, K., Witte, O., Zilles, K.: Widespread up-regulation of NMDA receptors after focal photothrombotic lesion in rat brain. *Neurosci. Lett.* 273: 77-80 (1999)
219. Mehl, M., Bidmon, H.-J., Hilbig, H., Zilles, K., Dringen, R., Ullrich, V.: Prostacyclin synthase is localized in rat, bovine and human neuronal brain cells. *Neurosci. Lett.* 271: 187-190 (1999)
220. Bürgel, U., Schormann, T., Schleicher, A., Zilles, K.: Mapping of histologically identified long fiber tracts in human cerebral hemispheres to the MRI volume of a reference brain: Position and spatial variability of the optic radiation. *NeuroImage* 10: 489-499 (1999)
221. Appelt, S., Ünlü, T., Zilles, K., Shah, N.J., Baer-Lang, S., Halling, H.: Experimental studies of rubidium absolute polarization at high temperatures. *Appl. Physics Lett.* 75: 427-429 (1999)
222. Herschkowitz, N., Kagan, J., Zilles, K.: Neurobiological bases of behavioral development in the second year. *Neuropediatrics* 30: 221-230 (1999)
223. Amunts, K., Jäncke, L., Mohlberg, H., Steinmetz, H., Zilles, K.: Interhemispheric asymmetry of the human motor cortex related to handedness and gender. *Neuropsychologia* 38: 304-312 (2000)
224. Bodegård, A., Ledberg, A., Geyer, S., Naito, E., Larsson, J., Zilles, K., Roland, P.: Object shape differences reflected by somatosensory cortical activation. *J. Neuroscience* 20(RC51): 1-5 (2000)
225. Amunts, K., Malikovic, A., Mohlberg, H., Schormann, T., Zilles, K.: Brodmann's areas 17 and 18 brought into stereotaxic space – where and how variable? *NeuroImage* 11: 66-84 (2000)
226. Stephan, K.E., Zilles, K., Kötter, R.: Coordinate-independent mapping of structural and functional data by Objective Relational Transformation (ORT). *Philos. Trans. R. Soc. London* 355: 37-54 (2000)
227. Bodegård, A., Geyer, S., Naito, E., Zilles, K., Roland, P.E.: Somatosensory areas in man activated by moving stimuli. Cytoarchitectonic mapping and PET. *NeuroReport* 11: 187-191 (2000)
228. Fink, G.R., Marshall, J.C., Shah, N.J., Weiss, P.H., Halligan, P.W., Grosse-Ruyken, M., Ziemons, K., Zilles, K., Freund, H.-J.: Line bisection judgements implicate right parietal cortex and cerebellum as assessed by fMRI. *Neurology* 54: 1324-1331 (2000)
229. Bayraktar, T., Welker, E., Freund, T.F., Zilles, K., Staiger, J.F.: Neurons immunoreactive for Vasoactive Intestinal Polypeptide in the rat primary somatosensory cortex: Morphology and spatial relationship to barrel-related columns. *J. Comp. Neurol.* 420: 291-304 (2000)
230. Zilles, K., Wu, J., Crusio, W.E., Schwegler, H.: Water maze and radial maze learning and the density of binding sites of glutamate, GABA, and serotonin receptors in the hippocampus of inbred mouse strains. *Hippocampus* 10: 213-225 (2000)

231. Sugiura, M., Kawashima, R., Nakagawa, M., Okada, K., Sato, T., Goto, R., Sato, K., Ono, S., Schormann, T., Zilles, K., Fukuda, H.: Correlation between human personality and neural activity in cerebral cortex. *NeuroImage* 11: 541-546 (2000)
232. Geyer, S., Zilles, K., Luppino, G., Matelli, M.: Neurofilament protein distribution in the macaque monkey dorsolateral premotor cortex. *Europ. J. Neurosci.* 12: 1554-1566 (2000)
233. Shah, N.J.; Ünlü, T.; Wegener, H.-P.; Halling, H.; Zilles, K.; Appelt, S.: Measurement of rubidium and xenon absolute polarization at high temperatures as a means of improved production of hyperpolarized ^{129}Xe . *NMR in Biomed.* 13: 214-219 (2000)
234. Staiger, J.F., Kötter, R., Zilles, K., Luhmann, H.J.: Laminar characteristics of functional connectivity in rat barrel cortex revealed by stimulation with caged-glutamate. *Neurosci. Res.* 37: 49-58 (2000)
235. Buchanan, T.W., Lutz, K., Mirzazade, S., Specht, K., Shah, J., Zilles, K., Jäncke, L.: Recognition of emotional prosody and verbal components of spoken language: An fMRI study. *Brain Res. Cogn. Brain Res.* 9: 227-238 (2000)
236. Geyer, S., Schormann, T., Mohlberg, H., Zilles, K.: Areas 3a, 3b, and 1 of human primary somatosensory cortex. 2. Spatial normalization to standard anatomical space. *NeuroImage* 11: 684-696 (2000)
237. Hilbig, H., Bidmon, H.-J., Dinse, H., Müller, A., Zilles, K.: Light and confocal laser-scanning microscopical evidences for complementary patterns of glial fibrillary acidic protein and *Wisteria floribunda* agglutinin structures in human and rat brain. *Exp. Toxicol. Pathol.* 52: 303-307 (2000)
238. Peters, M., Jäncke, L., Zilles, K.: Comparison of overall brain volume and midsagittal corpus callosum surface area as obtained from NMR scans and direct anatomical measures: a within-subject study on autopsy brains. *Neuropsychologia* 38:1375-1381 (2000)
239. Nakamura, K., Kawashima, R., Sato, N., Nakamura, A., Sugiura, M., Kato, T., Hatano, K., Ito, K., Fukuda, H., Schormann, T., Zilles, K.: Functional delineation of the human occipito-temporal areas related to familiar scene processing. *Brain* 123: 1903-1912 (2000) IF: 9,915
240. Staiger, J.F., Bisler, S., Schleicher, A., Gass, P., Stehle, J.H., Zilles, K.: Exploration of a novel environment leads to the expression of inducible transcription factors in barrel-related columns. *Neuroscience* 99: 7-16 (2000)
241. Qureshy, A., Kawashima, R., Imran, M.B., Sugiura, M., Goto, R., Okada, K., Inoue, K., Itoh, M., Schormann, T., Zilles, K., Fukuda, H.: Functional mapping of human brain in olfactory processing: A PET study. *J. Neurophysiol.* 84:1656-1666 (2000)
242. Ehrsson, H.H., Naito, E., Geyer, S., Amunts, K., Zilles, K., Forssberg, H., Roland, P.E.: Simultaneous movements of upper and lower limbs are coordinated by motor representations that are shared by both limbs: A PET study. *Europ. J. Neurosci.* 12: 3385-3398 (2000)

243. Naito, E., Kinomura, S., Geyer, S., Kawashima, R., Roland, P.E., Zilles, K.: Fast reaction to different sensory modalities activate common fields in the motor areas, but the anterior cingulate cortex is involved in the speed of reaction. *J. Neurophysiol.* 83: 1701-1709 (2000)
244. Gladilin, S., Bidmon, H.-J., Divanach, A., Arteel, G.E., Witte, O.W., Zilles, K., Sies, H.: Ebselen lowers plasma interleukin-6 levels and glial heme oxygenase-1 expression after focal photothrombotic brain ischemia. *Arch. Biochem. Biophys.* 380: 237-242 (2000)
245. Shah, N.J., Steinhoff, S., Mirzazade, S., Zafiris, O., Grosse-Ruyken, M.-L., Jäncke, L., Zilles, K.: The effect of sequence repeat time on auditory cortex stimulation during phonetic discrimination. *NeuroImage* 12: 100-108 (2000)
246. Jäncke, L., Himmelbach, M., Shah, N.J., Zilles, K.: The effect of switching between sequential and repetitive movements on cortical activation. *NeuroImage* 12: 528-537 (2000)
247. Kawashima, R., Tajima, N., Yoshida, H., Okita, K., Sasaki, T., Schormann, T., Ogawa, A., Fukuda, H., Zilles, K.: The effect of verbal feedback on motor learning - A PET study. *NeuroImage* 12: 698-706 (2000)
248. Geyer, S., Matelli, M., Luppino, G., Zilles, K.: Functional neuroanatomy of the primate isocortical motor system. *Anat. Embryol.* 202: 443-474 (2000)
249. Bidmon, H.-J., Oermann, E., Schiene, K., Schmitt, M., Kato, K., Asayama, K., Witte, O.W., Zilles, K.: Unilateral upregulation of cyclooxygenase-2 following cerebral, cortical photothrombosis in the rat: suppression by MK-801 and co-distribution with enzymes involved in the oxidative stress cascade. *J. Chem. Neuroanat.* 20: 163-176 (2000)
250. Schleicher, A., Amunts, K., Geyer, S., Kowalski, T., Schormann, T., Palomero-Gallagher, N., Zilles, K.: A stereological approach to human cortical architecture: identification and delineation of cortical areas. *J. Chem. Neuroanat.* 20: 31-47 (2000)
251. Binkofski, F., Amunts, K., Stephan, K.M., Posse, S., Schormann, T., Freund, H.-J., Zilles, K., Seitz, R.J.: Broca's region subserves imagery of motion: a combined cytoarchitectonic and fMRI study. *Human Brain Mapping* 11: 273-285 (2000)
252. Fink, G.R., Marshall, J.C., Weiss, P.H., Shah, N.J., Toni, I., Halligan, P.W., Zilles, K.: „Where“ depends on „what“: A differential functional anatomy for position discrimination in one- versus two-dimensions. *Neuropsychologia* 38: 1741-1748 (2000)
253. Weiss, P.H., Marshall, J.C., Wunderlich, G., Tellmann, L., Halligan, P.W., Freund, H.-J., Zilles, K., Fink, G.R.: Neural consequences of acting in near versus far space: a physiological basis for clinical dissociations. *Brain* 123: 2531-2541 (2000) IF: 9,915
254. Que, M., Witte, O.W., Zilles, K.: Transient up-regulation of γ -aminobutyric acid_A receptor binding by lubeluzole after neocortical lesion in rats. *Neurosci. Lett.* 296: 125-128 (2000)
255. Uylings, H.B.M., Sanz-Arigita, E., de Vos, K., Smeets, W.J.A.J., Pool, C.W., Amunts, K., Rajkowska, G., Zilles, K.: The importance of a human 3D database and atlas for studies of prefrontal and thalamic functions. *Progr. Brain Res.* 126: 357-368 (2000)

256. Weber, S., Bauer, A., Herzog, H., Kehren, F., Mühlensiepen, H., Vogelbruch, J., Coenen, H.H., Zilles, K., Halling, H.: Recent results of the TierPET scanner. *IEEE Trans. Nuclear Sci.* 47: 1665-1669 (2000)
257. Fink, G.R., Marshall, J.C., Gurd, J., Weiss, P.H., Zafiris, O., Shah, N.J., Zilles, K.: Deriving numerosity and shape from identical visual displays. *NeuroImage* 13: 46-55 (2001)
258. Zaitsev, M., Zilles, K., Shah, J.N.: Shared k-space echo planar imaging with keyhole. *Magn. Res. Med.* 45: 109-117 (2001)
259. Bremmer, F., Schlack, A., Shah, N.J., Zafiris, O., Kubischik, M., Hoffmann, K.-P., Zilles, K., Fink, G.R.: Polymodal motion processing in posterior parietal and premotor cortex: a human fMRI study strongly implies equivalencies between humans and monkeys. *Neuron* 29: 287-296 (2001) IF: 15,766
260. Buccino, G., Binkofski, F., Fink, G.R., Fadiga, L., Fogassi, L., Gallese, V., Seitz, R.J., Zilles, K., Rizzolatti, G., Freund, H.-J.: Action observation activates premotor and parietal areas in a somatotopic manner: an fMRI study. *Europ. J. Neurosci.* 13: 400-404 (2001)
261. Zilles, K., Kawashima, R., Dabringhaus, A., Fukuda, H., Schormann, T.: Hemispheric shape of European and Japanese brains: 3-D MRI analysis of intersubject variability, ethnical and gender differences. *NeuroImage* 13: 262-271 (2001)
262. Hilbig, H., Bidmon, H.-J., Blohm, U., Zilles, K.: *Wisteria floribunda* agglutinin labeling patterns in the human cortex: a tool for revealing areal borders and subdivisions in parallel with immunocytochemistry. *Anat. Embryol.* 203: 45-52 (2001)
263. Bidmon, H.-J., Schleicher, A., Wicke, K., Gross, G., Zilles, K.: Localization of mRNA for h5-HT_{1B} and h5-HT_{1D} receptors in human dorsal raphe. *Naunyn-Schmiedeberg's Arch. Pharmacol.* 363:364-368 (2001)
264. Bidmon, H.-J., Emde, B., Oermann, E., Kubitz, R., Witte, O.W., Zilles, K.: Heme oxygenase-1 (HSP-32) and heme oxygenase-2 induction in neurons and glial cells of cerebral regions and its relation to iron accumulation after focal cortical photothrombosis. *Exp. Neurol.* 168: 1-22 (2001)
265. Rademacher, J., Morosan, P., Schormann, T., Schleicher, A., Werner, C., Freund, H.-J., Zilles, K.: Probabilistic mapping and volume measurement of human primary auditory cortex. *NeuroImage* 13: 669-683 (2001)
266. Morosan, P., Rademacher, J., Schleicher, A., Amunts, K., Schormann, T., Zilles, K.: Human primary auditory cortex: Cytoarchitectonic subdivisions and mapping into a spatial reference system. *NeuroImage* 13: 684-701 (2001)
267. Semendeferi, K., Armstrong, E., Schleicher, A., Zilles, K., van Hoesen, G.W.: Prefrontal cortex in humans and apes: A comparative study of area 10. *Am. J. Phys. Anthropol.* 114: 221-241 (2001)

268. Schubert, D., Staiger, J.F., Cho, N., Kötter, R., Zilles, K., Luhmann, H.J.: Layer specific intra- and transcolumar functional connectivity of layer V pyramidal cells in rat barrel cortex. *J. Neuroscience* 21: 3580-3592 (2001)
269. Zilles, K., Palomero-Gallagher, N.: Cyto-, myelo- and receptor architectonics of the human parietal cortex. *NeuroImage* 14: 8-20 (2001)
270. Fink, G.R., Marshall, J.C., Weiss, P.H., Zilles, K.: The neural basis of vertical and horizontal line bisection judgements: an fMRI study of normal volunteers: *NeuroImage* 14: 59-67 (2001)
271. Toni, I., Thoenissen, D., Zilles, K.: Movement preparation and motor intention. *NeuroImage* 14: 110-117 (2001)
272. Steinhoff, S., Zaitsev, M., Zilles, K., Shah, N.J.: Fast T₁ mapping with volume coverage. *Magnetic Resonance in Medicine* 46: 131-140 (2001)
273. Schneider, F., Habel, U., Wagner, M., Franke, P., Salloum, J.B., Shah, N.J., Toni, I., Sulzbach, C., Hönig, K., Maier, W., Gaebel, W., Zilles, K.: Subcortical correlates of craving in recently abstinent alcoholic patients. *Am. J. Psychiat.* 158: 1075-1083 (2001)
274. Grefkes, C., Geyer, S., Schormann, T., Roland, P., Zilles, K.: Human somatosensory area 2: Observer-independent cytoarchitectonic mapping, interindividual variability, and population map. *NeuroImage* 14: 617-631 (2001)
275. Mazziotta, J., Toga, A., Evans, A., Fox, P., Lancaster, J., Zilles, K., Woods, R., Paus, T., Simpson, G., Pike, B., Holmes, C., Collins, L., Thompson, P., MacDonald, D., Iacobini, M., Schormann, T., Amunts, K., Palomero-Gallagher, N., Geyer, S., Parsons, L., Narr, K., Kabani, N., Le Goualher, G., Boomsma, D., Cannon, T., Kawashima, R., Mazoyer, B.: A probabilistic atlas and reference system for the human brain: International Consortium for Brain Mapping (ICBM). *Philos. Trans. R. Soc. London, Biol. Sci.* 356: 1293-1322 (2001)
276. Bidmon, H.-J., Emde, B., Kowalski, T., Schmitt, M., Mayer, B., Kato, K., Asayama, K., Witte, O.W., Zilles, K.: Nitric oxide synthase-I containing cortical interneurons co-express antioxidative enzymes and anti-apoptotic Bcl-2 following focal ischemia: Evidence for direct and indirect mechanisms towards their resistance to neuropathology. *J. Chem. Neuroanat.* 22: 167-184 (2001)
277. Mazziotta, J., Toga, A., Evans, A., Fox, P., Lancaster, J., Zilles, K., Woods, R., Paus, T., Simpson, G., Pike, B., Holmes, C., Collins, L., Thompson, P., MacDonald, D., Iacoboni, M., Schormann, T., Amunts, K., Palomero-Gallagher, N., Geyer, S., Parsons, L., Narr, K., Kabani, N., LeGoualher, G., Feidler, J., Smith, K., Boomsma, D., Hulshoff Pol, H., Cannon, T., Kawashima, R., Mazoyer, B.: A four-dimensional probabilistic atlas of the human brain. *JAMA* 8: 401-430 (2001)
278. Streit, M., Ioannides, A.A., Sinnemann, T., Wölwer, W., Dammers, J., Zilles, K., Gaebel, W. Disturbed facial affect recognition in patients with schizophrenia associated with hypoactivity in distributed brain regions: a magnetoencephalographic study. *Am. J. Psychiat.* 158: 1429-1436 (2001)

279. Rademacher, J., Morosan, P., Schleicher, A., Freund, H.-J., Zilles, K.: Human primary auditory cortex in women and men. *NeuroReport* 12: 1561-1565 (2001)
280. Kötter, R., Stephan, K.E., Palomero-Gallagher, N., Geyer, S., Schleicher, A., Zilles, K.: Multimodal characterisation of cortical areas by multivariate analyses of receptor binding and connectivity data. *Anat. Embryol.* 204: 333-350 (2001)
281. Geyer, S., Schleicher, A., Schormann, T., Mohlberg, H., Bodegård, A., Roland, P.E., Zilles, K.: Integration of microstructural and functional aspects of human somatosensory areas 3a, 3b, and 1 on the basis of a computerized brain atlas. *Anat. Embryol.* 204: 351-366 (2001)
282. Inoue, K., Kawashima, R., Sugiura, M., Ogawa, A., Schormann, T., Zilles, K., Fukuda, H.: Activation in the ipsilateral posterior parietal cortex during a tool use: A PET study. *NeuroImage* 14: 1469-1475 (2001)
283. Shah, N.J., Zaitsev, M., Steinhoff, S., Zilles, K.: A new method for fast multislice T₁ mapping. *NeuroImage* 14: 1175-1185 (2001)
284. Shah, N.J., Marshall, J.C., Zafiris, O., Schwab, A., Zilles, K., Markowitsch, H.J., Fink, G.R.: The neural correlates of person's familiarity; a functional magnetic resonance imaging study with clinical implications. *Brain* 124: 804-815 (2001) IF: 9,915
285. Rademacher, J., Bürgel, U., Geyer, S., Schormann, T., Schleicher, A., Freund, H.-J., Zilles, K.: Variability and asymmetry in the human precentral motor system. A cytoarchitectonic and myeloarchitectonic brain mapping study. *Brain* 124: 2232-2258 (2001) IF: 9,915
286. Fink, G.R., Marshall, J.C., Weiss, P.H., Toni, I., Zilles, K.: Task instructions influence the cognitive strategies involved in line bisection judgements: evidence from modulated neural mechanisms revealed by fMRI. *Neuropsychologia* 40: 119-130 (2001)
287. Weiss, P.H., Shah, N.J., Toni, I., Zilles, K., Fink, G.R.: Associating colours with people: a case of chromatic-lexical synaesthesia. *Cortex* 37: 750-753 (2001)
288. Voegeley, K., Bussfeld, P., Newen, A., Herrmann, S., Happé, F., Falkai, P., Maier, W., Shah, N.J., Fink, G.R., Zilles, K.: Mind reading: Neural mechanisms of theory of mind and self-perspective. *NeuroImage* 14: 170-181 (2001)
289. Bodegård, A., Geyer, S., Grefkes, C., Zilles, K., Roland, P.E.: Hierarchical processing of tactile shape in the human brain. *Neuron* 31: 317-328 (2001) IF: 15,766
290. Roland, P.E., Svensson, G., Lindeberg, T., Risch, T., Baumann, P., Dehmel, A., Frederiksson, J., Halldorn, J., Forsberg, L., Young, J., Zilles, K.: A database generator for human brain imaging. *TINS* 24: 562-564 (2001) IF: 13,582
291. Sugiura, M., Kawashima, R., Nakamura, R., Sato, N., Nakamura, A., Kato, T., Hatano, K., Schormann, T., Zilles, K., Sato, K., Itoh, K., Fukuda, H.: Activation reduction in anterior temporal cortices during repeated recognition of faces of personal acquaintances. *NeuroImage* 13: 877-890 (2001)

292. Bisler, S., Schleicher, A., Gass, P., Stehle, J., Zilles, K., Staiger, J.F.: Expression of Fos, ICER, Krox-24 and JunB in the whisker-to-barrel pathway of rats: time course of induction upon whisker stimulation by tactile exploration of an enriched environment. *J. Chem. Neuroanat.* 23: 187-198 (2002)
293. Schliess, F., Görg, B., Fischer, R.; Desjardins, P., Bidmon, H.-J., Hermann, A., Butterworth, R.F., Zilles, K., Häussinger, D.: Ammonia induces MK-801 sensitive nitration and phosphorylation of protein tyrosine residues in rat astrocytes. *FASEB* 16: 739-741 (2002)
294. Staiger, J.F., Masanneck, C., Bisler, S., Schleicher, A., Zuschratter, W., Zilles, K.: Excitatory and inhibitory neurons express c-Fos in barrel-related columns after exploration of a novel environment. *Neuroscience* 109: 687-699 (2002)
295. Gurd, J.M., Amunts, K., Weiss, P.H., Zafiris, O., Zilles, K., Marshall, J.C., Fink, G.R.: Posterior parietal cortex is implicated in continuous switching between verbal fluency tasks: an fMRI study with clinical implications. *Brain* 125: 1024-1038 (2002) IF: 9,915
296. Toni, I., Thoenissen, D., Zilles, K., Niedeggen, M.: Movement preparation and working memory: A behavioural dissociation. *Exp. Brain Res.* 142: 158-162 (2002)
297. Toni, I., Shah, N.J., Fink, G.R., Thoenissen, D., Passingham, R.E., Zilles, K.: Multiple movement representations in the human brain: An event-related fMRI study. *J. Cogn. Neurosci.* 14: 769-784 (2002)
298. Grefkes, C., Weiss, P.H., Zilles, K., Fink, G.R.: Crossmodal processing of object features in human anterior intraparietal cortex: an fMRI study strongly implies equivalencies between humans and monkey. *Neuron* 35: 173-184 (2002) IF: 15,766
299. Wunderlich, G., Marshall, J.C., Amunts, K., Weiss, P.H., Mohlberg, H., Zafiris, O., Zilles, K., Fink, G.R.: The importance of seeing it coming: A functional magnetic resonance imaging study of motion-in-depth towards the human observer. *Neuroscience* 112: 535-540 (2002).
300. Binkofski, F., Fink, G.R., Geyer, S., Buccino, G., Gruber, O., Shah, N.J., Taylor, J.G., Seitz, R.J., Zilles, K., Freund, H.J.: Neural activity in human primary motor cortex areas 4a and 4p of human motor cortex is modulated differentially by attention to action. *J. Neurophysiol.* 88: 514-519 (2002)
301. Larsson, J., Amunts, K., Gulyás, B., Malikovic, A., Zilles, K., Roland, P.E.: Perceptual segregation of overlapping shapes activates posterior extrastriate visual cortex in man. *Exp. Brain Res.* 143: 1-10 (2002)
302. Staiger, J.F., Schubert, D., Zuschratter, W., Kötter, R., Luhmann, H.J., Zilles, K.: Innervation of interneurons immunoreactive for VIP by intrinsically-bursting pyramidal cells and fast-spiking interneurons in infragranular layers of juvenile rat neocortex. *Europ. J. Neurosci.* 16: 11-20 (2002)
303. Kawashima, R., Watanabe, J., Kato, T., Nakamura, A., Hatano, K., Schormann, T., Sato, K., Fukuda, H., Ito, K., Zilles, K.: Direction of cross-modal information transfer affects human brain activation: A PET-study. *Europ. J. Neurosci.* 16: 137-144 (2002)

304. Rademacher, J., Bürgel, U., Zilles, K.: Stereotaxic localization, intersubject variability and interhemispheric differences of the human auditory thalamocortical system. *NeuroImage* 17: 142-160 (2002)
305. Thoenissen, D., Zilles, K., Toni, I.: Differential involvement of parietal and precentral regions in movement preparation and motor intention. *J. Neurosci.* 22: 9024-9034 (2002)
306. Fletcher, P.C., Palomero-Gallagher, N., Zafiris, O., Fink, G.R., Tyler, L.K., Zilles, K.: The influence of explicit instructions and stimulus material on lateral prefrontal responses to an encoding task. *NeuroImage* 17: 780-791 (2002)
307. Speckmann, E.-J., Köhling, R., Straub, H., Wolf, P., Ebner, A., Tuxhorn, I., Pannell, H.W., Rambeck, B., Zilles, K., Coenen, H.H., Löscher, W.: Perioperative Untersuchungen in der Epilepsiechirurgie: Eine Einführung. *Klin. Neurophysiol.* 33: 144-146 (2002)
308. Boy, C., Holschbach, M., Herzog, H., Bauer, A., Coenen, H.H., Zilles, K.: Präoperative Untersuchungen in der Epilepsiechirurgie: GABA- und Adenosinrezeptoren bei pharmakoresistenter, fokaler Temporallappenepilepsie mit Positronen Emissions-Tomographie (PET). *Klin. Neurophysiol.* 33: 147-155 (2002)
309. Bidmon, H.-J., Palomero-Gallagher, N., Zilles, K.: Postoperative Untersuchungen in der Epilepsiechirurgie: Enzyme der oxidativen Stresskaskade, Multi-Drug-Transporter und Transmitterrezeptoren. *Klin. Neurophysiol.* 33: 168-177 (2002)
310. Zilles, K., Palomero-Gallagher, N., Grefkes, C., Scheperjans, F., Boy, C., Amunts, K., Schleicher, A.: Architectonics of the human cerebral cortex and transmitter receptor fingerprints: Reconciling functional neuroanatomy and neurochemistry. *Europ. Neuropsychopharmacol.* 12: 587-599 (2002)
311. Roskoden, T., Zilles, K., Schleicher, A., Schwegler, H.: Transient postnatal thyroxine treatment leads to variation in transmitter binding site densities in the hippocampus of rats. *Neurosci. Lett.* 333: 21-24 (2002)
312. Crivello, F., Schormann, T., Tzourio-Mazoyer, N., Roland, P.E., Zilles, K., Mazoyer, B.M.: Comparison of spatial normalization procedures and their impact on functional maps. *Human Brain Mapping* 16:228-250 (2002)
313. Fink, G.R., Marshall, J.C., Weiss, P.H., Stephan, T., Shah, N.J., Grefkes, C., Zilles, K., Dieterich, M.: Compensation for distorted egocentric representation of space implicates right inferior parietal cortex. *Cortex* 38: 854-859 (2002)
314. Jolkkonen, J., Palomero-Gallagher, N., Zilles, K., Sivenius, J.: Behavioral deficits and recovery following focal cerebral ischemia in rats: glutamatergic and GABAergic receptor densities. *Behav. Brain Res.* 138: 187-200 (2003)
315. Tass, P.A., Fieseler, T., Dammers, J., Dolan, K., Morosan, P., Majtanik, M., Boers, F., Muren, A., Zilles, K., Fink, G.R.: Synchronization tomography: a method for three-dimensional localization of phase synchronized neuronal populations in the human brain using magnetoencephalography. *Phys. Rev. Lett.* 90:101-104 (2003).

316. Piefke, M., Weiss, P.H., Zilles, K., Markowitsch, H.J., Fink, G.R.: Differential remoteness and emotional tone modulate the neural correlates of autobiographical memory. *Brain* 126: 650-668 (2003) IF: 9,915
317. Schubert, D., Kötter, R., Zilles, K., Luhmann, H.J., Staiger, J.F.: Cell type-specific circuits of cortical layer IV spiny neurons. *J. Neurosci.* 23: 2961-2970 (2003)
318. Weiss, P.H., Marshall, J.C., Zilles, K., Fink, G.R.: Are action and perception in near and far space additive or interactive factors? *NeuroImage* 18: 837-846 (2003)
319. Palomero-Gallagher, N., Bidmon, H.-J., Zilles, K.: AMPA, kainate, and NMDA receptor densities in the hippocampus of untreated male rats and females in estrus and diestrus. *J. Comp. Neurol.* 459: 468-474 (2003)
320. MacLeod, C.E., Zilles, K., Schleicher, A., Rilling, J.K., Gibson, K.R.: Expansion of the neocerebellum in Hominoidea. *J. Human Evolution* 44: 401-429 (2003).
321. Young, J.P., Geyer, S., Grefkes, C., Amunts, K., Morosan, P., Zilles, K., Roland, P.E.: Regional cerebral blood flow correlations of somatosensory areas 3a, 3b, 1, and 2 in humans during rest: A PET and cytoarchitectural study. *Human Brain Mapping* 19: 183-196 (2003)
322. Zilles, K., Eickhoff, S., Palomero-Gallagher, N.: The human parietal cortex: a novel approach to its architectonical mapping. *Adv. Neurol.* 93: 1-20 (2003).
323. Langen, K.-J., Jarosch, M., Mühlensiepen, H., Hamacher, K., Bröer, S., Jansen, P., Zilles, K., Coenen, H.H.: Comparison of fluorotyrosines and methionine uptake in F98 rat gliomas. *Nuclear Med. Biol.* 30: 501-508 (2003).
324. Manjaly, Z., Marshall, J.C., Stephan, K.E., Gurd, J.M., Zilles, K., Fink, G.R.: In search of the hidden: An fMRI study with implications for the study of patients with autism and with acquired brain injury. *NeuroImage* 19: 674-683 (2003)
325. Kang, E., Lee, D.S., Lee J.S., Kang, H., Yoon, H.M., Hwang, C.H., Oh, S.H., Kim, C.S., Chung, J-K., Lee M.C., Jang M.J., Lee Y.J., Morosan, P., Zilles, K.: Developmental hemispheric asymmetry of interregional metabolic correlation of the auditory cortex in deaf subjects. *NeuroImage* 19: 777-783 (2003)
326. Stephan, K.E., Marshall, J.C., Friston, K.J., Rowe, J.B., Ritzl, A., Zilles, K., Fink, G.R.: Lateralized cognitive processes entail lateralized task control in the human brain. *Science* 301: 384-386 (2003) IF: 31,201
327. Vogele, K., Tepest, R., Schneider-Axmann, T., Hutte, H., Zilles, K., Honer, W.G., Falkai, P.: Automated image analysis of disturbed cytoarchitecture in Brodmann area 10 in schizophrenia. *Schizophr. Res.* 62: 133-140 (2003)
328. Amunts, K., Schleicher, A., Ditterich, A., Zilles, K.: Broca's region: Cytoarchitectonic asymmetry and developmental changes. *J. Comp. Neurol.* 465: 72-89 (2003). Erratum in: *J. Comp. Neurol.* 467: 270 (2003).

329. Ritzl, A., Marshall, J.C., Weiss, P.H., Zafiris, O., Shah, N.J., Zilles, K., Fink, G.R.: Functional anatomy and differential time courses of neural processing for explicit, inferred, and illusory contours: An event-related fMRI study. *NeuroImage* 19: 1567-1577 (2003)
330. Bauer, A., Holschbach, M.H., Meyer, P.T., Boy, C., Herzog, H., Olsson, R.A., Coenen, H.H., Zilles, K.: *In vivo* imaging of adenosine A₁ receptors in the human brain with [¹⁸F]CPFPX and positron emission tomography. *NeuroImage* 19: 1760-1769 (2003)
331. Kochunov, P., Fox, P., Lancaster, J., Tan, L.H., Amunts, K., Zilles, K., Mazziotta, J., Gao, J.H.: Localized morphological brain differences between English-speaking Caucasians and Chinese-speaking Asians: New evidence of anatomical plasticity. *Neuroreport* 14: 961-964 (2003).
332. Bauer, A., Holschbach, M.H., Cremer, M., Weber, S., Boy, C., Shah, N.J., Olsson, R.A., Halling, H., Coenen, H.H., Zilles, K.: Evaluation of ¹⁸F-CPFPX, a novel adenosine A₁ receptor ligand: In vitro autoradiography and high-resolution small animal PET. *J. Nuclear Med.* 44: 1682-1689 (2003).
333. Yilmazer-Hanke D.M., Roskoden T., Zilles K., Schwegler H.: Anxiety-related behavior and density of glutamate, GABAA, acetylcholine and serotonin receptors in the amygdala of seven inbred mouse strains. *Behav. Brain Res.* 145:145-159 (2003).
334. Horwitz, B., Amunts, K., Bhattarchayya, R., Patkin, D., Jeffries, K., Zilles, K., Braun, A.R.: Activation of Broca's area during the production of spoken and signed language: A combined cytoarchitectonic mapping and PET analysis. *Neuropsychologia* 41: 1868-1876 (2003)
335. Bodegård, A., Geyer, S., Herath, P., Grefkes, C., Zilles, K., Roland, P.E.: Somatosensory areas engaged during discrimination of steady pressure, spring strength and kinaesthesia. *Human Brain Mapping* 20: 103-115 (2003)
336. Lux, S., Marshall, J.C., Ritzl, A., Zilles, K., Fink, G.R.: Neural mechanisms associated with attention to temporal synchrony versus spatial orientation: An fMRI-study. *NeuroImage* 20: 58-65 (2003).
337. Assmus, A., Marshall, J.C., Ritzl, A., Noth, J., Zilles, K., Fink, G.R.: Left inferior parietal cortex integrates time and space during collision judgments. *NeuroImage* 20: 82-88 (2003).
338. Shah, N.J., Neeb, H., Zaitsev, M., Steinhoff, S., Kircheis, G., Amunts, K., Häussinger, D., Zilles, K.: Quantitative T2 mapping of hepatic encephalopathy using magnetic resonance imaging. *Hepatology* 38: 1219-1226 (2003).
339. Fink, G.R., Marshall, J.C., Weiss, P.H., Stephan, T., Grefkes, C., Shah, N.J., Zilles, K., Dieterich, M.: Performing allocentric visuospatial judgments with induced distortion of the egocentric reference frame: An fMRI study with clinical implications. *NeuroImage* 20: 1505-1517 (2003)
340. Sherwood, C.C., Holloway, R.L., Gannon, P.J., Semendeferi, K., Erwin, J.M., Zilles, K., Hof, P.R.: Neuroanatomical basis of facial expression in monkeys, apes and humans. *Ann. N.Y. Acad. Sci.* 1000: 99-103 (2003)

341. Koch, K., Habel, U., Kellermann, T., Stöcker, T., Klein, M., Amunts, K., Shah, N.J., Zilles, K., Schneider, F.: Schizophrenia patients show aberrant prefrontal activation during working memory performance under negative mood induction. *Schizophrenia Res.* (2004)
342. Sherwood, C.C., Holloway, R.L., Erwin, J.M., Schleicher, A., Zilles, K., Hof, P.R.: Cortical orofacial motor representation in old world monkeys, great apes, and humans. I: Quantitative analysis of cytoarchitecture. *Brain Behav. Evol.* 63: 61-81 (2004).
343. Lux, S., Marshall, J.C., Ritzl, A., Weiss, P.H., Pietrzyk, U., Shah, N.J., Zilles, K., Fink, G.R.: A functional magnetic resonance imaging study of local/global processing with stimulus presentation in the peripheral visual hemifields. *Neuroscience* 124: 113-120 (2004)
344. Meyer, P.T., Bier, D., Holschbach, M.H., Boy, C., Olsson, R.A., Coenen, H.H., Zilles, K., Bauer, A.: Quantification of cerebral A₁ adenosine receptors in humans using [¹⁸F]CPFPX and PET. *J. Cerebral Blood Flow Metabol.* 24: 323-333 (2004).
345. Thiel, C.M., Zilles, K., Fink, G.R.: Cerebral correlates of alerting, orienting and reorienting of visuospatial attention: an event-related fMRI study. *NeuroImage* 21: 318-328 (2004)
346. Rumiati, R.I., Weiss, P.H., Shallice, T., Ottoboni, G., Noth, J., Zilles, K., Fink, G.R.: Neural bases of pantomiming the use of visually presented objects. *Neuroimage* 21: 1224-1231 (2004)
347. Buccino, G., Vogt, S., Ritzl, A., Fink, G.R., Zilles, K., Freund, H.-J., Rizzolatti, G.: Neural circuits underlying imitation learning of hand actions: an event-related fMRI study. *Neuron* 42: 323-334 (2004) IF: 15,766
348. Amunts, K., Schleicher, A., Zilles, K.: Outstanding language competence and cytoarchitecture in Broca's speech region. *Brain and Language* 89: 346-353 (2004)
349. Staiger, J.F., Flagmeyer, I., Schubert, D., Zilles, K., Kötter, R., Luhmann, H.J.: Functional diversity of layer IV spiny neurons in rat somatosensory cortex: Quantitative morphology of electrophysiologically characterized and biocytin labeled cells. *Cerebral Cortex* 14: 690-701 (2004).
350. Amunts, K., Weiss, P.H., Mohlberg, H., Pieperhoff, P., Eickhoff, S., Gurd, J.M., Marshall, J.C., Shah, J.N., Fink, G.R., Zilles, K.: Analysis of the neural mechanisms underlying verbal fluency in cytoarchitecturally defined stereotaxic space - The roles of Brodmann areas 44 and 45. *NeuroImage* 22: 42-56 (2004)
351. Zafiris, O., Kircheis, G., Rood, H.A., Boers, F., Häussinger, D., Zilles, K.: Neural mechanism underlying impaired visual judgement in the dysmetabolic brain: An fMRI study. *NeuroImage* 22: 541-552 (2004).
352. Voegeley, K., May, M., Ritzl, A., Falkai, P., Zilles, K., Fink, G.R.: Neural correlates of first-person perspective as one constituent of human self-consciousness. *J. Cogn. Neurosci.* 16: 817-827 (2004)

353. Vogeley, K.; May, M.; Ritzl, A.; Falkai, P.; Zilles, K.; Fink, G. R.: Neural correlates of first- and third-person-perspective in spatial cognition. *Schizophrenia Research* 67: 115 – 116 (2004)
354. Wölwer, W.; Klein, M.; Frommann, N.; Habel, U.; Kellermann, T.; Koch, K.; Shah, N. J.; Streit, M.; Zilles, K.: Functional correlates of training of facial affect recognition in schizophrenia. *Schizophrenia Research* 67: 260 – 261 (2004)
355. Young, J.P., Herath, P., Eickhoff, S., Choi, H.-J., Grefkes, C., Zilles, K., Roland, P.E.: Somatotopy and attentional modulation of the human parietal and opercular regions. *J. Neurosci.* 24: 5391-5399 (2004)
356. Losem-Heinrichs, E., Görg, B., Schleicher, A., Redecker, C., Witte, O.W., Zilles, K., Bidmon, H.-J.: A combined treatment with $1\alpha,25$ -dihydroxy-vitamin D_3 and 17β -estradiol reduces the expression of heat shock protein-32 (HSP-32) following cerebral cortical ischemia. *J. Steroid Biochem. Mol. Biol.* 89-90: 371-374 (2004)
357. Bidmon, H.-J., Starbatty, J., Görg, B., Zilles, K., Behrends, S.: Cerebral expression of the α_2 -subunit of soluble guanylyl cyclase is linked to cerebral maturation and sensory pathway refinement during postnatal development. *Neurochem. Internat.* 45: 821-832 (2004).
358. Grefkes, C., Ritzl, A., Zilles, K., Fink, G.R.: Human medial intraparietal cortex subserves visuomotor coordinate transformation. *Neuroimage* 23: 1494-1506 (2004)
359. Habel, U., Klein, M., Shah, N.J., Toni, I., Zilles, K., Falkai, P., Schneider, F.: Genetic load on amygdala hypofunction during sadness in nonaffected brothers of schizophrenia patients. *Am. J. Psychiatry* 161: 1806-1813 (2004).
360. Oermann, E., Bidmon, H.-J., Witte, O.-W., Zilles, K.: Effects of $1\alpha,25$ dihydroxyvitamin D_3 on the expression of HO-1 and GFAP in glial cells of the photothrombotically lesioned cerebral cortex. *J. Chem. Neuroanat.* 28: 225-238 (2004)
361. Eickhoff, S., Walters, N.B., Schleicher, A., Kril, J., Egan, G.F., Zilles, K., Watson, J.D.G., Amunts, K.: High-resolution MRI reflects myelo- and cytoarchitecture of human cerebral cortex. *Human Brain Mapping* 24: 206-215 (2004)
362. Zilles, K., Palomero-Gallagher, N., Schleicher, A.: Transmitter receptors and functional anatomy of the cerebral cortex. *J. Anat.* 205: 417-432 (2004)
363. Butler, A. W., Fink, G. R., Dohle, C., Wunderlich, G., Tellmann, L., Seitz, R. J., Zilles, K., Freund, H. J.: Neural mechanisms underlying reaching for remembered targets cued kinesthetically or visually in left or right hemispace. *Human Brain Mapping*, 21: 165 – 177 (2004)
364. Bidmon, H.-J., Görg, B., Palomero-Gallagher, N., Behne, F., Lahl, R., Pannek, H.W., Speckmann, E.-J., Zilles, K.: Heat shock protein-27 is upregulated in the temporal cortex of patients with epilepsy. *Epilepsia* 45: 1549-1559 (2004)
365. Staiger, J.F., Masannek, C., Schleicher, A., Zuschratter, W.: Calbindin-containing interneurons are a target for VIP-immunoreactive synapses in rat primary somatosensory cortex. *J. Comp. Neurol.* (2004)

366. Pietrzyk, U.; Bauer, D.; Vieten, A.; Bauer, A.; Langen, K. J.; Zilles, K.; Palm, C.: Creating consistent 3D multi-modality data sets from autoradiographic and histological images of the rat brain. *NSS-MIC IEEE* 6: 4001 – 4003 (2004)
367. Mazziotta, J., Toga, A., Evans, A., Fox, P., Zilles, K., Woods, R., Lancaster, J., Paus, T., Amunts, K., Iacoboni, M., Watkins, K., Pol, H.H., Kawashima, R., Mazoyer, B., Cannon, T., Smith, K., Carley, M., Mori, S., Ascoli, G., Kochunov, P.: Probabilistic human brain atlases – Normal subjects and neurological patients. *Ann. Neurol.* (2005)
368. Floeth, F., Pauleit, D., Wittsack, H.J., Langen, K.J., Reifenberger, G., Hamacher, K., Müller, H.W., Zilles, K., Messing-Jünger, M., Weber, F., Stummer, W., Steiger, H.J., Coenen, H.H., Sabel, M.: Multimodal metabolic imaging of cerebral gliomas using positron emission tomography with [¹⁸F]-fluoroethyl-L-tyrosine and magnetic resonance spectroscopy. *J. Neurosurg.* 102: 318-327 (2005).
369. Krumbholz, K., Schönwiesner, M., RübSamen, R., Zilles, K., Fink, G.R., von Cramon, Y.D.: Hierarchical processing of sound location and motion in the human brain stem and planum temporale. *Europ. J. Neurosci.* 21: 230-238 (2005).
370. Meyer, P.T., Elmenhorst, D., Zilles, K., Bauer, A.: Simplified quantification of cerebral A₁ adenosine receptors using [¹⁸F]CPFPX and PET: Analyses based on venous blood sampling. *Synapse* 55: 212-223 (2005)
371. Schürmann, M., Hesse, M.D., Stephan, K.E., Saarela, M., Zilles, K., Hari, R., Fink, G.R.: Yearning to yawn: The neural basis of contagious yawning. *NeuroImage* 24: 1260-1264 (2005)
372. Sherwood, C.C., Hof, P.R., Holloway, R.L., Semendeferi, K., Gannon, P.J., Frahm, H.D., Zilles, K.: Evolution of the brainstem orofacial motor system in primates: A comparative study of trigeminal, facial and hypoglossal nuclei. *J. Human Evol.* 48: 45-84 (2005).
373. Bauer, A., Langen, K-J., Bidmon, H-J., Holschbach, M.H., Weber, S., Olsson, R.A., Coenen, H.H., Zilles, K.: [¹⁸F]CPFPX PET identifies changes of cerebral A₁ adenosine receptor density caused by glioma invasion. *J. Nucl. Med.* 46: 450-454 (2005)
374. Bozkurt, A., Zilles, K., Schleicher, A., Kamper, L., Sanz Arigita, E., Uylings, H., Kötter, R.: Distributions of transmitter receptors in the macaque cingulate cortex. *NeuroImage* 25: 219-229 (2005)
375. Rumiati, R.; Weiss, P. H.; Tessari, A.; Assmus, A.; Zilles, K.; Herzog, H.; Fink, G. R. Common and differential neural mechanisms supporting imitation of meaningful and meaningless actions. *J. Cognitive Neurosci.*, 17: 1420 – 1431 (2005)
376. Langen, K.J., Hamacher, K., Bauer, D., Bröer, S., Pauleit, D., Herzog, H., Floeth, F.W., Zilles, K., Coenen, H.H.: Preferred stereoselective transport of the D-Isomer of Cis-4-[¹⁸F]fluoro-proline at the blood-brain barrier. *J. Cereb. Blood Flow Metab.* 25: 607-616 (2005)

377. Krumbholz, K., Schönwiesner, M., von Cramon, D.Y., Rübsem, R., Shah, N.J., Zilles, K., Fink, G.R.: Representation of interaural temporal information from left and right auditory space in the human planum temporale and inferior parietal lobe. *Cerebral Cortex* 15: 317-324 (2005).
378. Stöcker, T., Schneider, F., Klein, M., Habel, U., Kellermann, T., Zilles, K., Shah, N.J.: Automated quality assurance routines for fMRI data applied to a multicenter study. *Human Brain Mapping* 25: 237-246 (2005).
379. Eickhoff, S., Stephan, K.E., Mohlberg, H., Grefkes, C., Fink, G.R., Amunts, K., Zilles, K.: A new SPM toolbox for combining probabilistic cytoarchitectonic maps and functional imaging data. *NeuroImage* 25: 1325-1335 (2005)
380. Wohlschläger, A.M., Specht, K., Lie, C.-H., Mohlberg, H., Wohlschläger, A., Bente, K., Pietrzyk, U., Stöcker, T., Zilles, K., Amunts, K., Fink, G.R.: Linking retinotopic fMRI mapping and anatomical probability maps of human occipital areas V1 and V2. *NeuroImage* 26: 73-82 (2005).
381. Fletcher, P.C., Zafiris, O., Frith, C.D., Honey, R.A.E., Corlett, P.R., Zilles, K., Fink, G.R.: On the benefits of not trying: brain activity and connectivity reflecting the interactions of explicit and implicit sequence learning. *Cerebral Cortex* 15: 1002-1015 (2005)
382. Sugiura, M., Shah, N.J., Zilles, K., Fink, G.R.: Cortical representations of personally familiar objects and places: Functional organization of the human posterior cingulate cortex. *J. Cogn. Neurosci.* 17: 183-198 (2005)
383. Meyer, P.T., Elmenhorst, D., Bier, D., Holschbach, M.H., Matusch, A., Coenen, H.H., Zilles, K., Bauer, A.: Quantification of cerebral A₁ adenosine receptors in humans using [¹⁸F]CPFPX and PET: An equilibrium approach. *NeuroImage* 24: 1192-1204 (2005)
384. Assmus, A., Marshall, J.C., Noth, J., Zilles, K., Fink, G.R.: Difficulty of perceptual spatiotemporal integration modulates the neural activity of left inferior parietal cortex. *Neuroscience* 132: 923-927 (2005).
385. Pauleit, D., Floeth, F., Hamacher, K., Riemenschneider, M.J., Reifenberger, G., Mueller, H.-W., Zilles, K., Coenen, H.H., Langen, K.-J: *O*-(2-[¹⁸F]fluoroethyl)-L-tyrosine PET combined with MRI improves the diagnostic assessment of cerebral gliomas. *Brain* 128: 678-687 (2005) IF: 9,915
386. Losem-Heinrichs, E., Görg, B., Schleicher, A., Redecker, C., Witte, O.W., Zilles, K., Bidmon, H.-J.: 1 α ,25-Dihydroxy-vitamin D₃ in combination with 17 β -estradiol lowers the cortical expression of heat shock protein-27 following experimentally induced focal cortical ischemia in rats. *Arch Biochem Biophys* 439: 70-79 (2005)
387. Scheperjans, F., Grefkes, C., Palomero-Gallagher, N., Schleicher, A., Zilles, K.: Subdivisions of human parietal area 5 revealed by quantitative receptor autoradiography: A parietal region between motor, somatosensory, and cingulate cortical areas. *NeuroImage* 25: 975-992 (2005)

388. Scheperjans F, Palomero-Gallagher N, Grefkes C, Schleicher A, Zilles K.: Transmitter receptors reveal segregation of cortical areas in the human superior parietal cortex: relations to visual and somatosensory regions. *Neuroimage* 28:362-379 (2005).
389. Thiel, C., Zilles, K., Fink, G.R.: Nicotine modulates reorienting of visuospatial attention and neural activity in human parietal cortex. *Neuropsychopharmacol.* 30: 810 – 820 (2005)
390. Bidmon, H.-J., Görg, B., Palomero-Gallagher, N., Schliess, F., Gorji, A., Speckmann, E.-J., Zilles, K.: Bilateral, vascular and perivascular glial upregulation of heat shock protein-27 after repeated epileptic seizures. *J. Chem. Neuroanat.* 30: 1-16 (2005)
391. Becker, J.S., Zoriy, M. V., Denhardt, M., Pickhardt, C., Zilles, K.: Copper, zinc, phosphorus and sulfur distribution in thin section of rat brain tissues measured by laser ablation inductively coupled plasma mass spectrometry: Possibility for small-size tumor analysis. *J. Anal. At. Spectrom.* 20: 912-917 (2005)
392. Becker, J.S., Zoriy, M. V., Pickhardt, C., Palomero-Gallagher, N., Zilles, K.: Imaging of copper, zinc and other elements in thin section of human brain samples (hippocampus) by laser ablation inductively coupled plasma mass spectrometry. *Anal. Chem.* 77: 3208-3216 (2005)
393. Zaitsev, M., D'Arcy, J., Collins, D.J., Leach, M.O., Zilles, K., Shah, N.J.: Dual-contrast echo planar imaging with keyhole: Application to dynamic contrast-enhanced perfusion studies. *Physics Med. Biol.* 50: 1-15 (2005)
394. Naito, E., Roland, P.E., Grefkes, C., Choi, H.J., Eickhoff, S., Geyer, S., Zilles, K., Ehrsson, H.H.: Dominance of the right hemisphere and role of area 2 in human kinesthesia. *J. Neurophysiol.* 93: 1020-1034 (2005)
395. Kochunov, P., Mangin, J.-F., Coyle, T., Lancaster, J., Thompson, P., Rivière, D., Cointepas, Y., Régis, J., Schlosser, A., Royall, D. R., Zilles, K., Mazziotta, J., Toga, A., Fox, P. T.: Age-related morphology trends of cortical sulci. *Human Brain Mapping* 26: 210-220 (2005)
396. Bauer, D., Hamacher, K., Bröer, S., Pauleit, D., Palm, C., Zilles, K., Coenen, H.H., Langen, K.J.: Preferred stereoselective brain uptake of D-serine - a modulator of glutamatergic neurotransmission. *Nucl. Med. Biol.* 32: 793-797 (2005)
397. Siegrist, J., Menrath, I., Stöcker, T., Klein, M., Kellermann, T., Shah, J.N., Zilles, K., Schneider, F.: Differential brain activation according to chronic social reward frustration. *NeuroReport* 16: 1899-1903 (2005)
398. Amunts, K., Kedo, O., Kindler, M., Pieperhoff, P., Mohlberg, H., Shah, N.J., Habel, U., Schneider, F., Zilles, K.: Cytoarchitectonic mapping of the human amygdala, hippocampal region and entorhinal cortex: Intersubject variability and probability maps. *Anat. Embryol.* 210: 343-352 (2005).
399. Schleicher, A., Palomero-Gallagher, N., Morosan, P., Eickhoff, S.B., Kowalski, T., de Vos, K., Amunts, K., Zilles, K.: Quantitative architectural analysis: a new approach to cortical mapping. *Anat. Embryol.* 210: 373-386 (2005)

400. Morosan, P., Schleicher, A., Amunts, K., Zilles, K.: Multimodal architectonic mapping of human superior temporal gyrus. *Anat. Embryol.* 210: 401-406 (2005)
401. Hurlemann, R., Boy, C., Meyer, P. T., Scherk, H., Wagner, M., Herzog, H., Coenen, H. H., Vogele, K., Falkai, P., Zilles, K., Maier, W., Bauer, A.: Decreased prefrontal 5-HT_{2A} receptor binding in subjects at enhanced risk for schizophrenia. *Anat. Embryol.* 210: 519-523 (2005)
402. Hurlemann, R., Matusch, A., Eickhoff, S.B., Palomero-Gallagher, N., Meyer, P.T., Boy, C., Maier, W., Zilles, K., Amunts, K., Bauer, A.: Analysis of receptor PET-data based on cytoarchitectonic maximum probability maps: a feasibility study. *Anat. Embryol.* 210: 447-453 (2005)
403. Geyer, S., Luppino, G., Ekamp, H., Zilles, K.: The macaque inferior parietal lobule: cytoarchitecture and distribution pattern of serotonin 5-HT_{1A} binding sites. *Anat. Embryol.* 210: 353-362 (2005)
404. Uylings, H.B.M., Rajkowska, G., Sanz-Arigita, E., Amunts, K., Zilles, K.: Consequences of large interindividual variability for human brain atlases: converging macroscopical imaging and microscopical neuroanatomy. *Anat. Embryol.* 210: 423-431 (2005)
405. Langen, K.J., Hamacher, K., Pauleit, D., Floeth, F.W., Stoffels, G., Bauer, D., Reif, M., Zilles, K., Coenen, H.H.: Evaluation of new ¹⁸F-labeled amino acids for brain PET. *Anat. Embryol.* 210: 455-461 (2005)
406. Oermann, E., Warskulat, U., Heller-Stilb, B., Häussinger, D., Zilles, K.: Taurine-transporter gene knockout-induced changes in GABA_A, kainate and AMPA but not NMDA receptor binding in mouse brain. *Anat. Embryol.* 210: 363-372 (2005)
407. Uylings, H.B.M., Malofeeva, L.I., Bogolepova, I.N., Jacobsen, A.M., Amunts, K., Zilles, K.: No postnatal doubling of number of neurons in human Broca's area (Brodmann areas 44 and 45)? A stereological study. *Neuroscience* 136: 715-728 (2005)
408. Heim, S., Alter, K., Ischebeck, A. K., Amunts, K., Eickhoff, S.B., Mohlberg, H., Zilles, K., Yves von Cramon, D., Friederici, A. D.: The role of the left Brodmann's areas 44 and 45 in reading words and pseudowords. *Cognitive Brain Research* 25: 982-993 (2005)
409. Bazwinsky, I., Bidmon, H.-J., Zilles, K., Hilbig, H.: Characterization of the rhesus monkey superior olivary complex by calcium binding proteins and synaptophysin. *J. Anat.* 207: 745- 761 (2005)
410. Manjaly, Z.M., Marshall, J.C., Stephan, K.E., Gurd, J.M., Zilles, K., Fink, G.R.: Context-dependent interactions of left posterior inferior frontal gyrus in a local visual search task unrelated to language. *Cognitive Neuropsychology* 22: 292-305 (2005)
411. Weiss, P.H., Zilles, K., Fink, G.R.: When visual perception causes feeling: Enhanced cross-modal processing in grapheme-color synesthesia. *NeuroImage* 28: 859-868 (2005)

412. Wilms, M., Eickhoff, S.B., Specht, K., Amunts, K., Shah, N.J., Malikovic, A., Fink, G.R.: Human V5/MT+: comparison of functional and cytoarchitectonic data. *Anat. Embryol.* (2005)
413. Eickhoff, S., Schleicher, A., Zilles, K., Amunts, K.: The human parietal operculum. I. Cytoarchitectonic mapping of subdivisions. *Cerebral Cortex* 16: 254-267 (2006).
414. Eickhoff, S., Amunts, K., Mohlberg, H., Zilles, K.: The human parietal operculum. II. Stereotaxic maps and correlation with functional imaging results. *Cerebral Cortex* 16: 268-279 (2006).
415. Choi, H.-J., Zilles, K., Mohlberg, H., Schleicher, A., Fink, G.R., Armstrong, E., Amunts, K.: Cytoarchitectonic identification and probabilistic mapping of two distinct areas within the anterior ventral bank of the human intraparietal sulcus. *J. Comp. Neurol.* 495: 53-69 (2006)
416. Bürgel, U., Amunts, K., Hoemke, L., Mohlberg, H., Gilsbach, J.M., Zilles, K.: White matter fibre tracts of the human brain: Three-dimensional mapping at microscopic resolution, topography and intersubject variability. *NeuroImage* 29: 1092-1105 (2006).
417. Stöcker, T., Kellermann, T., Schneider, F., Habel, U., Amunts, K., Pieperhoff, P., Zilles, K., Shah, N.J.: Dependence of amygdala activation on echo time: results from olfactory fMRI experiments. *NeuroImage* 30: 151-159 (2006)
418. Neeb, H., Zilles, K., Shah, N.J.: Fully-automated detection of cerebral water content changes: Study of age- and gender-related H₂O patterns with quantitative MRI. *NeuroImage* 29: 910-922 (2006)
419. Neeb, H., Zilles, K., Shah, N.J.: A new method for fast quantitative mapping of absolute water content in vivo. *NeuroImage*. 31: 1156-1168 (2006).
420. Oermann, E., Bidmon, H.-J., Witte, O.-W., Zilles, K.: 1 α ,25-Dihydroxyvitamin D3 treatment does not alter neuronal cyclooxygenase-2 expression in the cerebral cortex after stroke. *Anat. Embryol.* 211: 129-138 (2006).
421. Romanzetti, S., Halse, M., Kaffanke, J., Zilles, K., Balcom, B.J., Shah, N.J.: A comparison of three SPRITE techniques for the quantitative 3D imaging of the ²³Na spin density on a 4T whole-body machine. *J. Magn. Reson.* 179: 64-72 (2006)
422. Uylings, H.B.M., Jacobsen, A.M., Zilles, K., Amunts, K.: Left-right asymmetry in volume and number of neurons in adult Broca's area. *Cortex* 42: 652-658 (2006)
423. Zoriy, M.V., Dehnhardt, M., Reifenberger, G., Zilles, Becker, J.S.: Imaging of Cu, Zn, Pb and U in human brain tumor resections by laser ablation inductively coupled plasma mass spectroscopy. *Intern. J. Mass Spectrom.* 257: 27-33 (2006)
424. Barnikol, U. B., Amunts, K., Dammers, J., Mohlberg, H., Fieseler, T., Malikovic, A., Zilles, K., Niedeggen, M., Tass, P.A.: Pattern reversal visual evoked responses of V1/V2 and V5/MT as revealed by MEG combined with probabilistic cytoarchitectonic maps. *NeuroImage* 31: 86-108 (2006).

425. Eickhoff, S.B., Heim, S., Zilles, K., Amunts, K.: Testing anatomically specified hypotheses in functional imaging using cytoarchitectonic maps. *NeuroImage* 32: 570-582 (2006).
426. Eickhoff, S.B., Weiss, P.H., Amunts, K., Fink, G.R., Zilles, K.: Identifying human parieto-insular vestibular cortex using fMRI and cytoarchitectonic mapping. *Hum Brain Mapping* 27: 611-21 (2006).
427. Eickhoff, S.B., Lotze, M., Wietek, B., Amunts, K., Enck, P., Zilles, K.: Segregation of visceral and somatosensory afferents: An fMRI and cytoarchitectonic mapping study. *NeuroImage* 31: 1004-1014 (2006).
428. Meyer, P. T., Elmenhorst, D., Matusch, A., Winz, O., Zilles, K., Bauer, A.: A₁ adenosine receptor PET using [¹⁸F]CPFPX: Displacement studies in humans. *NeuroImage* 32: 1100-1105 (2006)
429. Meyer, P.T., Elmenhorst, D., Matusch, A., Winz, O., Zilles, K., Bauer, A.: 18F-CPFPX PET: On the generation of parametric images and the effect of scan duration. *J. Nucl. Med.* 47: 200-207 (2006)
430. Caspers, S., Geyer, S., Schleicher, A., Mohlberg, H., Amunts, K., Zilles, K.: The human inferior parietal cortex: Cytoarchitectonic parcellation and interindividual variability. *Neuroimage* 33: 430-448 (2006)
431. Toga, A.W., Thompson, P.M., Mori, S., Amunts, K., Zilles, K.: Towards multimodal atlases of the human brain. *Nature Rev. Neurosci.* 7: 952-966 (2006) IF: 31,673
432. Matusch, A., Meyer, P.T., Bier, D., Holschbach, M., Voitalla, D., Elmenhorst, D., Winz, O.H., Zilles, K., Bauer, A.: Metabolism of the A1 adenosine PET ligand [¹⁸F]CPFPX by CYP1A2: implications for bolus/infusion PET studies. *Nucl. Med. Biol.* 33: 891-898 (2006)
433. Hulshoff Pol, H.E., Schnack, H.G., Posthuma, D., Mandl, R.C.W., Baare, W.F., van Oel, C., van Haaren, N.E., Collins, D.L., Evans, A.C., Amunts, K., Bürgel, U., Zilles, K., de Geus, E., Boomsma, D.I., Kahn, R.S.: Genetic contributions to human brain morphology and intelligence. *J. Neurosci.* 26:10235-10242 (2006)
434. Bidmon, H., Mohlberg, H., Habermann, G., Buse, E., Zilles, K., Behrends, S.: Cerebellar localization of the NO-receptive soluble guanylyl cyclase subunits- α_2/β_1 in non-human primates. *Cell Tiss. Res.* 326: 707-714 (2006).
435. Schneider, F., Habel, U., Reske, M., Kellermann, T., Stöcker, T., Shah, N.J., Zilles, K., Braus, D.F., Schmitt, A., Schlösser, R., Wagner, M., Frommann, I., Kircher, T., Rapp, A., Meisenzahl, E., Ufer, S., Ruhrmann, S., Thienel, R., Sauer, H., Henn, F.A., Gaebel, W.: Neural correlates of working memory dysfunction in first-episode schizophrenia patients: An fMRI multi-center study. *Schizophr. Res.* 89: 198-210 (2007)
436. Malikovic, A., Amunts, K., Schleicher, A., Mohlberg, H., Eickhoff, S.B., Wilms, M., Palomero-Gallagher, N., Armstrong, E., Zilles, K.: Cytoarchitectonic analysis of the human extrastriate cortex in the region of V5/MT+: A probabilistic, stereotaxic map of area hOc5. *Cerebral Cortex* 17: 562-574 (2007)

437. Sugiura, M., Friston, K.J., Willmes, K., Shah, N.J., Zilles, K., Fink, G.R.: An analysis of inter-subject variability in activation: An application to the incidental episodic retrieval during recognition test. *Hum Brain Mapp.* 28: 49-58 (2007).
438. Topic, B., Willuhn, I., Palomero-Gallagher, N., Zilles, K., Huston, J.P., Hasenöhr, R.U.: Impaired maze performance in aged rats is accompanied by increased density of NMDA, 5-HT_{1A} and α -adrenoceptor binding in hippocampus. *Hippocampus* 17: 68-77 (2007)
439. Amunts, K., Armstrong, E., Malikovic, A., Hömke, L., Mohlberg, H., Schleicher, A., Zilles, K.: Gender-specific left-right asymmetries in human visual cortex. *J. Neurosci.* 27: 1356-1364 (2007)
440. Elmenhorst, D., Meyer, P.T., Winz, O.H., Matusch, A., Ermert, J., Coenen, H.H., Basheer, R., Haas, H.L., Zilles, K., Bauer, A.: Sleep deprivation increases A₁ adenosine receptor binding in the human brain: a [¹⁸F]CPFPX PET study. *J. Neurosci.* 27: 2410-2415 (2007)
441. Eickhoff, S.B., Schleicher, A., Scheperjans, F., Palomero-Gallagher, N., Zilles, K.: Analysis of neurotransmitter receptor distribution patterns in the cerebral cortex. *NeuroImage* 34: 1317-1330 (2007)
442. Hilbig, H., Nowack, S., Boeckler, K., Bidmon, H.-J., Zilles, K.: Characterisation of neuronal subsets surrounded by perineuronal nets in the rhesus auditory brain stem. *J. Anat.* 210: 507-517 (2007)
443. Eickhoff, S.B., Paus, T., Caspers, S., Grosbras, M.-H., Evans, A.C., Zilles, K., Amunts, K.: Assignment of functional activations to probabilistic cytoarchitectonic areas revisited. *NeuroImage* 36: 511-521 (2007)
444. Walters, N.B., Eickhoff, S.B., Schleicher, A., Zilles, K., Amunts, K., Egan, G.F., Watson, J.D.: Observer-independent analysis of high-resolution MR images of the human cerebral cortex: In vivo delineation of cortical areas. *Hum. Brain Mapp.* 28: 1-8 (2007).
445. Eickhoff, S. B., Grefkes, C., Zilles, K., Fink, G.R.: The somatotopic organization of cytoarchitectonic areas on the human parietal operculum. *Cerebral Cortex* 17: 1800-1811 (2007)
446. Langen. K.-J., Salber, D., Hamacher, K., Stoffels, G., Reifenberger, G., Pauleit, D., Coenen, H.H., Zilles, K.: Detection of secondary thalamic degeneration after cortical infarction using *cis*-4-¹⁸F-fluoro-D-proline. *J. Nucl. Med.* 48:1482–1491 (2007).
447. Prieto, E.A., Barnikol, U.B., Palmero-Soler, E., Dolan, K., Hesselmann, G., Mohlberg, H., Amunts, K., Zilles, K., Niedeggen, M., Tass, P.A.: Timing of V1/V2 and V5+ activations during coherent motion of dots: an MEG study. *NeuroImage* 37: 1371- 1395 (2007)
448. Amunts, K., Schleicher, A., Zilles, K.: Cytoarchitecture of the cerebral cortex – more than localization. *NeuroImage* 37: 1061-1065 (2007)
449. Lancaster, J.L., Tordesillas-Gutiérrez, D., Martínez, M., Salinas, F., Evans, A., Zilles, K., Mazziotta, J.C., Fox, P.T.: Bias between MNI and Talairach coordinates analyzed using the ICBM-152 brain Template. *Human Brain Mapping* 28: 1194-1205 (2007)

450. Eickhoff, S.B., Rottschy, C., Zilles, K.: Laminar distribution and co-distribution of neurotransmitter receptors in human early visual cortex. *Brain Structure Function* 212: 255-267 (2007) IF: 7,837
451. Neuner, I., Stöcker, T., Kellermann, T., Kircher, T., Zilles, K., Schneider, F., Shah, N. J.: Wechsler Memory Scale revised edition: Neural correlates of the visual paired associates subtest adapted for fMRI. *Brain Res.* 1177: 66-78 (2007)
452. Meyer, P.T., Elmenhorst, D., Boy, C., Winz, O., Matusch, A., Zilles, K., Bauer, A.: Effect of aging on cerebral A₁ adenosine receptors: a [¹⁸F]CPFPX PET study in humans. *Neurobiol. Aging* 28: 1914-1924 (2007).
453. Elmenhorst, D., Meyer, P.T., Matusch, A., Winz, O., Zilles, K., Bauer, A.: Test-Retest stability of cerebral A₁ adenosine receptor quantification using [¹⁸F]CPFPX and PET. *Europ. J. Nucl. Med. Mol. Imaging.* 34:1061-1070 (2007)
454. Matusch, A., Hurlemann, R., Kops, E. R., Winz, O., Elmenhorst, D., Herzog, H., Zilles, K., Bauer, A.: Acute S-ketamine application does not alter cerebral [¹⁸F]altanserin binding: a pilot PET study in humans. *J. Neural Transmission* 114: 1433-1442 (2007).
455. Vogt, S.R., Buccino, G., Wohlschläger, A.F., Canessa, N., Shah, J., Zilles, K., Eickhoff, S.B., Freund, H.-J., Rizzolatti, G., Fink, G.R.: Prefrontal involvement in imitation learning of hand actions: Effects of practice and expertise. *NeuroImage* 37: 1371-1383 (2007)
456. Rottschy, C., Eickhoff, S., Schleicher, A., Mohlberg, H., Kujovic, M., Zilles, K., Amunts, K.: The ventral visual cortex in humans: Cytoarchitectonic mapping of two extrastriate areas. *Human Brain Mapping* 28: 1045-1059 (2007)
457. Naito, E., Scheperjans, F., Eickhoff, S.B., Amunts, K., Roland, P., Zilles, K., Ehrsson, H.H.: Cytoarchitectonic areas in human superior parietal lobule are functionally implicated by an illusion of bimanual interaction with an external object *J. Neurophysiol.* 99: 695-703 (2008)
458. Dobrowolska, J., Dehnhardt, M., Matusch, A., Zoriy, M., Palomero-Gallagher, N., Koscielniak, P., Zilles, K., Becker, J.S.: Quantitative imaging of zinc, copper and lead in three distinct regions of the human brain by laser ablation inductively coupled plasma mass spectrometry. *Talanta* 74: 717-723 (2008)
459. Pieperhoff, P., Hömke, L., Schneider, F., Habel, U., Shah, N.J., Zilles, K., Amunts, K.: Deformation field morphometry reveals age-related structural differences between the brains of adults up to 51 years. *J. Neurosci.* 28: 828-842 (2008)
460. Hurlemann, R., Matusch, A., Kuhn, K.-U., Berning, J., Elmenhorst, S., Winz, O., Kolsch, H., Zilles, K., Wagner, M., Maier, W., Bauer, A.: 5-HT_{2A} receptor density is decreased in at-risk mental state. *Psychopharmacology* 195: 579-590 (2008)
461. Dehnhardt, M., Zoriy, M.V., Kahn, Z., Reifenberger, G., Ekström, T.J., Becker, J.S., Zilles, K., Bauer, A.: Element distribution is altered in a zone surrounding human glioblastoma multiforme. *J. Trace Elements Med. Biol.* 22: 17-23 (2008)

462. Boy, C., Meyer, P.T., Kircheis, G., Holschbach, M.H., Herzog, H., Elmenhorst, D., Kaiser, H.J., Coenen, H.H., Häussinger, D., Zilles, K., Bauer, A.: Cerebral adenosine A₁ receptors (A₁AR) in liver cirrhosis. *Eur. J. Nucl. Med. Mol. Imaging* 35:589–597 (2008).
463. Palomero-Gallagher, N., Schleicher, A., Lindemann, S., Lessenich, A., Zilles, K., Löscher, W.: Receptor fingerprinting the circling ci2 rat mutant: insights into brain asymmetry and motor control. *Exp. Neurol.* 210: 624–637 (2008)
464. Palomero-Gallagher, N., Mohlberg, H., Zilles, K., Vogt, B.: Cytology and receptor architecture of human anterior cingulate cortex. *J. Comp. Neurol.* 508: 906–926 (2008)
465. Schenker, N.M., Buxhoeveden, D.P., Blackmon, W.L., Amunts, K., Zilles, K., Semendeferi, K.: A comparative quantitative analysis of cytoarchitecture and minicolumnar organization in Broca's area in humans and great apes. *J. Comp. Neurol.* 510:117–128 (2008)
466. Shah, N.J., Neeb, H., Kircheis, G., Engels, P., Häussinger, D., Zilles, K.: Quantitative cerebral water content mapping in hepatic encephalopathy. *NeuroImage* 41: 706–717 (2008).
467. Eickhoff, S.B., Dafotakis, M., Grefkes, C., Shah, N.J., Zilles, K., Piza-Katzer, H.: Central adaptation following heterotopic hand replantation probed by fMRI and effective connectivity analysis. *Exp. Neurol.* 212:132 - 144 (2008)
468. Scheperjans, F., Hermann, K., Eickhoff, S.B., Amunts, K., Schleicher, A., Zilles, K.: Observer-independent cytoarchitectonic mapping of the human superior parietal cortex. *Cerebral Cortex* 18: 846–867 (2008)
469. Scheperjans, F., Eickhoff, S.B., Hömke, L., Mohlberg, H., Hermann, K., Amunts, K., Zilles, K.: Probabilistic maps, morphometry, and variability of cytoarchitectonic areas in human superior parietal cortex. *Cerebral Cortex* 18: 2141–2157 (2008)
470. Fischl, B., Rajendran, N., Busa, E., Augustinack, J., Hinds, O., Mohlberg, H., Amunts, K., Zilles, K.: Cortical folding patterns and predicting cytoarchitecture. *Cerebral Cortex* 18: 1973–1980 (2008)
471. Caspers, S., Eickhoff, S.B., Geyer, S., Scheperjans, F., Mohlberg, H., Zilles, K., Amunts, K.: The human inferior parietal lobule in stereotaxic space. *Brain Structure and Function* 212: 481–495 (2008) IF: 7,837
472. Zaborszky, L., Hoemke, L., Mohlberg, H., Schleicher, A., Amunts, K., Zilles, K.: Stereotaxic probabilistic maps of the magnocellular cell groups in human basal forebrain. *NeuroImage* 42: 1127–1141 (2008)
473. Oishi, K., Zilles, K., Amunts, K., Faria, A., Jiang, H., Xin Li, X., Akhter, K., Hua, K., Woods, R., Toga, A.W., Pike, G.B., Rosa-Neto, P., Evans, A., Zhang, J., Huang, H., Miller, M.I., van Zijl, P.C.M., Mazziotta, J., Mori, S.: Human brain white matter atlas: Identification and assignment of common anatomical structures in superficial white matter. *NeuroImage* 43: 447–457 (2008)
474. Eickhoff, S.B., Rottschy, C., Kujovic, M., Palomero-Gallagher, N., Schleicher, A., Zilles, K.: Organizational principles of human visual cortex revealed by receptor mapping. *Cerebral Cortex* 18: 2637–2645 (2008)

475. Pieperhoff, P., Südmeyer, M., Hömke, L., Zilles, K., Schnitzler, A., Amunts, K.: Detection of structural changes of the human brain in longitudinally acquired MR images by deformation field morphometry: Methodological analysis, validation and application. *NeuroImage* 43: 269-287 (2008)
476. Eickhoff, S.B., Dafotakis, M., Grefkes, C., Stöcker, T., Shah, N.J., Schnitzler, A., Zilles, K., Siebler, M.: fMRI reveals cognitive and emotional processing in a long-term comatose patient. *Exp. Neurol.* 214:240-246 (2008)
477. Eickhoff, S.B., Grefkes, C., Fink, G.R., Zilles, K.: Functional lateralisation of face, hand and trunk representation in anatomically defined human somatosensory areas. *Cerebral Cortex* 18: 2820-2830 (2008)
478. Bidmon, H.J., Görg, B., Palomero-Gallagher, N., Schleicher, A., Häussinger, D., Speckmann, E.J., Zilles, K.: Glutamine synthetase becomes nitrated and its activity is reduced during repeated seizure activity in the pentylentetrazole model of epilepsy. *Epilepsia* 49: 1733-48 (2008)
479. Schott, B., Minuzzi, L., Krebs, R., Elmenhorst, D., Lang, M., Winz, O., Seidenbecher, C., Coenen, H.H., Heinze, H.-J., Zilles, K., Duzel, E., Bauer, A.: Mesolimbic fMRI activations during reward anticipation correlate with reward-related ventral striatal dopamine release. *J. Neurosci.* 28(52):14311-14219 (2008)
480. Turner, R., Oros-Peusquens, A.-M., Romanzetti, S., Zilles, K., Shah, N.J.: Optimised in vivo visualisation of cortical structures in the human brain at 3T using IR-TSE. *Magnetic Res. Imaging* 26: 935-942 (2008)
481. Reske, M., Habel, U., Kellermann, T., Backes, V., Shah, N.J., von Wilmsdorff, M., Gaebel, W., Zilles, K., Schneider, F.: Differential brain activation during facial emotion discrimination in first-episode schizophrenia. *J. Psychiat. Res.* 43: 592-599 (2009)
482. Eickhoff, S.B., Heim, S., Zilles, K., Amunts, K.: A systems perspective on the effective connectivity of overt speech production. *Phil. Trans. R. Soc. A, Math. Phys. Eng. Sci.* 367: 2399-2421 (2009)
483. Cremer, C.M., Palomero-Gallagher, N., Bidmon, H.-J., Schleicher, A., Speckmann, E.-J., Zilles, K.: Pentylentetrazole-induced seizures affect binding site densities for GABA, glutamate and adenosine receptors in the rat brain. *Neuroscience* 163: 490-499 (2009)
484. Schleicher, A., Morosan, P., Amunts, K., Zilles, K.: Quantitative architectural analysis: A new approach to cortical mapping. *J. Autism Dev. Disord.* 39: 1568-1581 (2009)
485. Hinds, O., Polimeni, J.R., Rajendran, N., Balasubramanian, M., Amunts, K., Zilles, K., Schwartz, E.L., Fischl, B., Triantafyllou, C.: Locating the functional and anatomical boundaries of human primary visual cortex. *NeuroImage* 46: 915-922 (2009)
486. Palomero-Gallagher, N., Bidmon, H.J., Cremer, M., Schleicher, A., Kircheis, G., Reifenberger, G., Kostopoulos, G., Häussinger, D., Zilles, K.: Neurotransmitter receptor imbalances in motor cortex and basal ganglia in hepatic encephalopathy. *Cellular Physiol. Biochem.* 24: 291-306 (2009)

487. Zilles, K., Amunts, K.: Receptor mapping: Architecture of the human cerebral cortex. *Current Opinion Neurol.* 22:331–339 (2009)
488. Palomero-Gallagher, N., Vogt, B.A., Schleicher, A., Mayberg, H.S., Zilles, K.: Receptor architecture of human cingulate cortex: Evaluation of the four-region neurobiological model. *Human Brain Mapping* 30: 2336-2355 (2009)
489. Jakobs, O., Wang, L.E., Dafotakis, M., Grefkes, C., Zilles, K., Eickhoff, S.B.: Effects of timing and movement uncertainty implicate the temporo-parietal junction in the prediction of forthcoming motor actions. *NeuroImage*:47: 667-677 (2009)
490. Hurlemann, R., Schlaepfer, T., Matusch, A., Reich, H., Shah, N.J., Zilles, K., Maier, W., Bauer, A.: Reduced 5-HT_{2A} receptor signaling following selective bilateral amygdala damage. *Social Cognitive and Affective Neuroscience* 4: 79 - 84 (2009)
491. Saper, C.B., Maunsell, J.H.R., Destexhe, A., Richmond, B., Campagnoni, A., Sarter, M., Fritschy, J.M., Saper, C., Bloom, F.E., Perry, G., Smith, M.A., Maunsell, J., Ascoli, G.A., Kennedy, D., De Schutter, E., Eichenbaum, H., Greenamyre, J.T., Krystal, J., Zilles, K., Zaborszky, L., Byrne, J.H., Blumberg, M., Lumsden, A., Harris, B., Sanes, J., Wong, R., Eatock, R.A., Gilman, S., Lisberger, S., Poznanski, R.R., Simons, R.F., Millar, R., Fox, P.T., Lancaster, J., Fletcher, P.C.: The Neuroscience Peer Review Consortium. *Neuropharmacology*, 56: 733 – 734 (2009).
492. Saper, CB; Maunsell, JHR; Destexhe, A; Richmond, B; Campagnoni, A; Sarter, M; Fritschy, JM; Saper, C; Bloom, FE; Perry, G; Smith, MA; Maunsell, J; Ascoli, G; Kennedy, D; De Schutter, E; Eichenbaum, H; Greenamyre, JT; Krystal, J; Zilles, K; Zaborszky, L; Byrne, JH; Blumberg, M; Lumsden, A; Harris, B; Sanes, J; Wong, R; Eatock, RA; Gilman, S; Frangou, S; Sagvolden, T; Ottersen, OP; Lisberger, S; Poznanski, RR; Simons, RF; Millar, R; Fox, PT; Lancaster, JL; Fletcher, P: The Neuroscience Peer Review Consortium. *J. Comp. Neurol.* 513: 333 - 334 (2009).
493. Saper, C.B., Maunsell, J.H.R., Destexhe, A., Richmond, B., Campagnoni, A., Sarter, M., Fritschy, J.M., Saper, C., Bloom, F.E., Perry, G., Smith, M.A., Maunsell, J., Ascoli, G.A., Kennedy, D., De Schutter, E., Eichenbaum, H., Greenamyre, J.T., Krystal, J., Zilles, K., Zaborszky, L., Byrne, J.H., Blumberg, M., Lumsden, A., Harris, B., Sanes, J., Wong, R., Eatock, R.A., Gilman, S., Lisberger, S., Poznanski, R.R., Simons, R.F., Millar, R., Fox, P.T., Lancaster, J., Fletcher, P.C.: The Neuroscience Peer Review Consortium. *European Psychiatry*, 24:, 69 – 70 (2009)
494. Hömke, L., Amunts, K., Bönig, L., Fretz, C., Binkofski, F., Zilles, K., Weder, B.: Analysis of lesions in patients with unilateral tactile agnosia using cytoarchitectonic probabilistic maps. *Human Brain Mapping*, 30: 1444 – 1456 (2009)
495. Haghiri, H., Kovacs, S., Speckmann, E.-J., Zilles, K., Gorji, A.: Patterns of neurotransmitter receptor distributions following cortical spreading depression. *Neuroscience* 163: 1340-1352 (2009)
496. Cremer, C.M., Cremer, M., Escobar, J.L., Speckmann, E.-J., Zilles, K.: Fast, quantitative in situ hybridization of rare mRNAs using ¹⁴C standards and phosphorus imaging. *J. Neurosci. Methods* 185: 56–61 (2009)

497. Bidmon, H.-J., Speckmann, E.-J., Zilles, K.: Seizure semiology, neurotransmitter receptors and cellular stress responses in pentylenetetrazole models of epilepsy. *Europ. Neurological Rev.* 4: 76-80 (2009)
498. Eickhoff, S.B., Laird, A.R., Grefkes, C., Wang, L.E., Zilles, K., Fox, P.T.: Coordinate-based activation likelihood estimation meta-analysis of neuroimaging data: a random-effects approach based on empirical estimates of spatial uncertainty. *Hum Brain Mapp.* 30: 2907-2926 (2009)
499. Stamelou, M., Matusch, A., Elmenhorst, D., Hurlmann, R., Eggert, K. M., Zilles, K., Oertel, W.H., Höglinger, G.U., Bauer, A.: Nigrostriatal upregulation of 5-HT_{2A} receptors correlates with motor dysfunction in progressive supranuclear palsy. *Mov. Disord.* 24: 1170-1175 (2009)
500. Kochunov, P., Glahn, D., Fox, P.T., Lancaster, J.L., Saleem, K., Shelledy, W., Zilles, K., Thompson, P.M., Coulon, O., Mangin, J.F., Blangero, J., Rogers, J.: Genetics of primary cerebral gyration: Heritability of length, depth and area of primary sulci in an extended pedigree of baboons. *Neuroimage* 53: 1126-1134 (2010)
501. Winkler, A.M., Kochunov, P., Blangero, J., Almasy, L., Zilles, K., Fox, P.T., Duggirala, R., Glahn, D.C.: Cortical thickness or grey matter volume? The importance of selecting the phenotype for imaging genetics studies. *NeuroImage* 53: 1135-1146 (2010)
502. De Sousa, A.A., Sherwood, C.C., Schleicher, A., Amunts, K., MacLeod, C., Hof, P.R., Zilles, K.: Comparative cytoarchitectural analyses of striate and extrastriate areas in hominoids. *Cerebral Cortex* 20: 966-981 (2010)
503. Kurth, F., Eickhoff, S.B., Schleicher, A., Hoemke, L., Zilles, K., Amunts, K.: Cytoarchitecture and probabilistic maps of the human posterior insular cortex. *Cerebral Cortex* 20: 1448-1461 (2010).
504. Dammers, J., Axer, M., Gräbel, D., Palm, C., Zilles, K., Amunts, K., Pietrzyk, U.: Signal enhancement in polarized light imaging by means of independent component analysis. *Neuroimage* 49: 1241-1248 (2010)
505. Caspers, S.V., Zilles, K., Laird, A.R., Eickhoff, S.B.: ALE meta-analysis of action observation and imitation in the human brain. *NeuroImage* 50: 1148-1167 (2010)
506. Habel, U., Koch, K., Kellermann, T., Reske, M., Frommann, N., Wölwer, W., Zilles, K., Shah, N.J., Schneider, F.: Training of affect recognition in schizophrenia: Neurobiological correlates. *Social Neurosci.* 5: 92-104 (2010)
507. Zilles, K., Amunts, K.: Centenary of Brodmann's map conception and fate. *Nature Rev. Neurosci.* 11: 139-145 (2010) IF: 31,673
508. Kurth, F., Zilles, K., Fox, P.T., Laird, A.R., Eickhoff, S.B.: A link between the systems: functional differentiation and integration within the human insula revealed by meta-analysis. *Brain Struct. Funct.* 214: 519-534 (2010) IF: 7,837

509. De Sousa, A.A., Sherwood, C.C., Mohlberg, H., Amunts, K., Schleicher, A., MacLeod, C., Hof, P.R., Frahm, H., Zilles, K.: Hominoid visual brain structure volumes and the position of the lunate sulcus. *J. Hum. Evol.* 58: 281-292 (2010)
510. Palm, C., Axer, M., Gräbel, D., Dammers, J., Lindemeyer, J., Zilles, K., Pietrzyk, U., Amunts, K.: Towards ultra-high resolution fibre tract mapping of the human brain – Registration of polarised light images and reorientation of fibre vectors. *Front. Hum. Neurosci.* 4: 9: 1-16 (2010)
511. Oros-Peusquens, A.-M., Stöcker, T., Amunts, K., Zilles, K., Shah, N.J.: In vivo imaging of the human brain at 1.5 T with 0.6-mm isotropic resolution. *Magnetic Resonance Imaging* 28: 3329-3340 (2010)
512. Smaers, J.B., Schleicher, A., Zilles, K., Vinicius, L.: Frontal white matter volume is associated with brain enlargement and higher structural connectivity in anthropoid primates. *PLoS ONE* 5: e9123 (2010)
513. Rogers, J., Kochunov, P., Zilles, K., Shelledy, W., Lancaster, J., Thompson, P., Duggirala, R., Blangero, J., Fox, P.T., Glahn, D.C.: On the genetic architecture of cortical folding and brain volume in primates. *NeuroImage* 53: 1103-1108 (2010)
514. Görg, B., Qvarskhava, N., Bidmon, H.-J., Palomero-Gallagher, N., Kircheis, G., Zilles, K., Häussinger, D.: Oxidative stress markers in the brain of patients with hepatic encephalopathy. *Hepatology* 52:256-265 (2010)
515. Eickhoff, S.B., Jbabdi, S., Caspers, S., Laird, A.R., Fox, P.T., Zilles, K., Behrens, T.E.J.: Anatomical and functional connectivity of cytoarchitectonic areas within the human parietal operculum. *J. Neurosci.* 30: 6409–6421 (2010).
516. Cremer, C.M., Bidmon, H.-J., Görg, B., Palomero-Gallagher, N., Lopez Escobar, J., Speckmann, E.-J., Zilles, K.: Inhibition of glutamate/glutamine cycle in vivo results in decreased benzodiazepine binding and differentially regulated GABAergic subunit expression in the rat brain. *Epilepsia* 51: 1446-1455 (2010)
517. von Kapri, A., Rick, T., Caspers, S., Eickhoff, S.B., Zilles, K., Kuhlen, T.: Evaluating a visualization of uncertainty in probabilistic tractography. *Proc. SPIE* 7625, 762534, DOI: 10.1117/12.843808. (2010).
518. Lancaster, J.L., Cykowski, M.D., Reese McKay, D., Kochunov, P.V., Fox, P.T., Rogers, W., Toga, A.W., Zilles, K., Amunts, K., Mazziotta, J.: Anatomical global spatial normalization. *Neuroinformatics* 8: 171-82 (2010)
519. Yeo, B.T.T., Sabuncu, M.R., Vercauteren, T., Holt, D., Amunts, K., Zilles, K., Golland, P., Fischl, B.: Learning task-optimal image registration cost functions for localizing cytoarchitecture and function in the cerebral cortex. *IEEE Transactions Med. Imaging* 29: 1424-1441 (2010)
520. Palomero-Gallagher, N., Schleicher, A., Zilles, K., Löscher, W.: The circling ci2 rat mutant revisited: receptor architecture of the motor cortex. *Neuroscience* 170: 542–550 (2010)

521. Amunts, K., Lenzen, M., Friederici, A.D., Schleicher, A., Morosan, P., Palomero-Gallagher, N., Zilles, K.: Broca's region: Novel organizational principles and multiple receptor mapping. *PLoS Biology* 8(9): e1000489. doi:10.1371/journal.pbio.1000489 (2010)
522. Eickhoff, S.B., Pomjanski, W., Jakobs, O., Zilles, K., Langner, R.: Neural correlates of developing and adapting behavioural biases in speeded choice reactions – An fMRI study on predictive motor coding. *Cerebral Cortex* doi:10.1093/cercor/bhq188 (2010)
523. [Keitel, V.](#), [Görg, B.](#), [Bidmon, H.J.](#), [Zemtsova, I.](#), [Spomer, L.](#), [Zilles, K.](#), [Häussinger, D.](#) [The bile acid receptor TGR5 \(Gpbar-1\) acts as a neurosteroid receptor in brain.](#) *Glia* 58: 1794-1805 (2010)
524. Cieslik, E.C., Zilles, K., Kurth, F., Eickhoff, S.B.: Dissociating bottom-up and top-down processes in a manual stimulus-response compatibility task. *J. Neurophysiol.* 104: 1472-1483 (2010)
525. Axer, M., Amunts, K., Gräßel, D., Palm, C., Dammers, J., Axer, H., Pietrzyk, U., Zilles, K.: A novel approach to the human connectome: Ultra-high resolution mapping of fiber tracts in the brain. *Neuroimage* 54:1091-1101 (2011)
526. Cieslik, E.C., Zilles, K., Grefkes, C., Eickhoff, S.B.: Dynamic interactions in the fronto-parietal network during a manual stimulus-response compatibility task. *NeuroImage* 58: 860-869 (2011)
527. Müller, V., Habel, U., Derntl, B., Schneider, F., Zilles, K., Turetsky, B.I., Eickhoff, S.B. Incongruence effects and amygdala activation in crossmodal emotional integration. *Neuroimage* 54: 2257-2266 (2011)
528. Papadelis, C., Eickhoff, S.B., Zilles, K., Ioannides, A.A.: BA3b and BA1 activate in a serial fashion after median nerve stimulation: Direct evidence from combining source analysis of evoked fields and cytoarchitectonic probabilistic maps. *NeuroImage* 54: 60-73 (2011)
529. Smaers J.B., Steele J., Case C.R., Cowper A., Amunts, K. & Zilles K.: Primate prefrontal cortex evolution: human brains are the extreme of a lateralized ape trend. *Brain Behav. Evol.* 77: 67–78 (2011)
530. Rick, T., von Kapri, A., Caspers, S., Amunts, K., Zilles, K., Kuhlen, T.: Visualization of probabilistic fiber tracts in virtual reality. *Stud Health Technol Inform* 163: 486-492 (2011)
531. Bzdok, D., Langner, R., Caspers, S., Kurth, F., Habel, U., Zilles, K., Laird, A., Eickhoff, S.B.: ALE meta-analysis on facial judgments of trustworthiness and attractiveness. *Brain Structure and Function* 215: 209-223 (2011) IF: 7,837
532. Caspers, S., Heim, S., Lucas, M.G., Stephan, E., Fischer, L., Amunts, K., Zilles, K.: Moral concepts set decision strategies to abstract values. *PLoS One* 6 (4): e18451. doi: 10.1371/journal.pone.0018451 (2011)
533. Smaers, J.B., Steele, J., Zilles, K.: Modeling the evolution of cortico-cerebellar systems in primates. *Ann. N.Y. Acad. Sci.* 1225: 176–190 (2011)

534. Zilles, K., Amunts, K., Smaers, J.: Three Brain Collections for Comparative Neuroanatomy and Neuroimaging. *Ann. NY Acad. Sci.* 1225 S1: E94–E104 (2011)
535. Graebenitz, S., Kedo, O., Speckmann, E.-J., Gorji, A., Panneck, H., Hans, V., Palomero-Gallagher, N., Schleicher, A., Zilles, K., Pape, H.-C.: Interictal-like network activity and receptor expression in the epileptic human lateral amygdala. *Brain* 134: 2929-2947 (2011) IF: 9,915
536. Eickhoff, S.B., Bzdok, D., Laird, A.R., Roski, C., Caspers, S., Zilles, K., Fox, P.T.: Co-activation patterns distinguish cortical modules, their connectivity and functional differentiation. *NeuroImage* 57: 938-949 (2011)
537. Caspers, S., Eickhoff, S.B., Rick, T., von Kapri, A., Kuhlen, T., Huang, R., Shah, N.J., Zilles, K.: Probabilistic fibre tract analysis of cytoarchitectonically defined human inferior parietal lobule areas reveals similarities to macaques. *NeuroImage* 58: 362–380 (2011)
538. Cremer, C.M., Lübke, J.H.R., Palomero-Gallagher, N., Zilles, K.: Laminar distribution of neurotransmitter receptors in different *reeler* mouse brain regions. *Brain Structure Function* 216: 201-218 (2011) IF: 7,837
539. Herold, C., Palomero-Gallagher, N., Hellmann, B., Kröner, S., Theiss, C., Güntürkün, O., Zilles, K.: The receptorarchitecture of the pigeons' nidopallium caudolaterale: an avian analogue to the mammalian prefrontal cortex. *Brain Structure and Function* 216: 239-254 (2011)
540. Oishi, K., Huang, H., Yoshioka, T., Ying, S.H., David S. Zee, D.S., Zilles, K., Amunts, K., Woods, R., Toga, A.W., Pike, G.B., Rosa-Neto, P., Evans, A.C., van Zijl, P.C.M., Mazziotta, J.C., Mori, S.: Superficially located white matter structures commonly seen in the human and the macaque brain with diffusion tensor imaging. *Brain Connect.* 1(1): 37-47 (2011).
541. Axer, M., Grassel, D., Kleiner, M., Dammers, J., Dickscheid, T., Reckfort, J., Hütz, T., Eiben, B., Pietrzyk, U., Zilles, K., Amunts, K.: High-resolution fiber tract reconstruction in the human brain by means of three-dimensional polarized light imaging. *Front. Neuroinform.* 5:34: 1-12 (2011)
542. Herold, C., Palomero-Gallagher, N., Güntürkün, O., Zilles, K.: Serotonin 5-HT_{1A} receptor binding sites in the brain of the pigeon (*Columba livia*). *Neuroscience* 200: 1-12 (2012)
543. Bzdok, D., Langner, R., Hoffstaedter, F., Turetsky, B.I., Zilles, K., Eickhoff, S.B.: The modular neuroarchitecture of social judgments on faces. *Cerebral Cortex* 22: 951-961 (2012).
544. Zilles, K., Amunts, K.: Segregation and wiring in the brain. *Science* 335: 1582-1584 (2012) IF: 31,201
545. Smaers, J.B., Mulvaney, P.I., Soligo, C. I, Zilles K., Amunts K.: Sexual dimorphism and laterality in the evolution of the primate prefrontal cortex. *Brain Behav.* 79(3): 205-212 (2012).

546. Becker, B., Mihov, Y., Scheele, D., Kendrick, K.M., Feinstein, J.S., Matusch, A., Aydin, M., Reich, H., Kunz, W.S., Schlaepfer, T.E., Zilles, K., Maier, W., Hurlmann, R.: Fear processing and social networking in the absence of a functional amygdala. *Biol. Psychiatry* 72: 70-77 (2012)
547. Jakobs, O., Langner, R., Caspers, S., Roski, C., Cieslik, E.C., Zilles, K., Laird, A.R., Fox, P.T., Eickhoff, S.B.: Across-study and within-subject functional connectivity of a right temporo-parietal junction subregion involved in stimulus-context integration. *Neuroimage* 60: 2389-2398 (2012)
548. Kellermann, T.S., Sternkopf, M.A., Schneider, F., Habel, U., Turetsky, B.I., Zilles, K., Eickhoff, S.B.: Modulating the processing of emotional stimuli by cognitive demand. *Social Cognitive and Affective Neuroscience* 7: 263-273 (2012)
549. Dammers, J., Breuer, L., Axer, M., Kleiner, M., Eiben, B., Gräbel, D., Dickscheid, T., Zilles, K., Amunts, K., Shah, N.J., Pietrzyk, U.: Automatic identification of gray and white matter components in polarized light imaging. *NeuroImage* 59: 1338-1347 (2012)
550. Amunts, K., Zilles, K.: Architecture and organizational principles of Broca's region. *Trends Cognitive Sciences* 16(8): 418 – 426. doi.org/10.1016/j.tics.2012.06.005 (2012) IF: 16,008
551. Caspers, S., Heim, S., Lucas, M.G., Stephan, E., Fischer, L., Amunts, K., Zilles, K.: Dissociated neural processing for decisions in managers and non-managers. *PLoS One* 7 (8): e43537 (2012)
552. Palomero-Gallagher, N., Schleicher, A., Bidmon, H.-J., Pannek, H.-W., Hans, V., Gorji, A., Speckmann, E.-J., Zilles, K.: Multi-receptor analysis in human neocortex reveals complex alterations of receptor ligand binding in focal epilepsies. *Epilepsia* 53(11): 1987-1997 (2012) doi: 10.1111/j.1528-1167.2012.03634.x (2012)
553. Südmeyer, M., Pieperhoff, P., Ferrea, S., Krause, H., Groiss, S.J., Elben, S., Wojtecki, L., Zilles, K., Amunts, K., Schnitzler, A. 2012. Longitudinal deformation-based morphometry reveals spatio-temporal dynamics of brain volume changes in patients with corticobasal syndrome. *PLoS ONE* 7(7): e41873 (2012) doi: 10.1371/journal.pone.0041873.
554. Caspers, J., Zilles, K., Eickhoff, S.B., Beierle, C.: Coordinate-based pattern-mining on functional neuroimaging databases. *Advances on Computational Intelligence, Communications in Computer and Information Science* 297: 240 – 249 (2012)
555. Caspers, S., Schleicher, A., Bacha-Trams, M., Palomero-Gallagher, N., Amunts, K., Zilles, K.: Organization of the human inferior parietal lobule based on receptor architectonics. *Cerebral Cortex* 23 (3): 615-628 (2013)
556. Kujovic, M., Zilles, K., Malikovic, A., Schleicher, A., Mohlberg, H., Rottschy, C., Eickhoff, S.B., Amunts, K.: Cytoarchitectonic mapping of the human dorsal extrastriate cortex. *Brain Struct. Function* 218: 157-172 (2013) IF: 7,837
557. de Sousa, A.A., Sherwood, C.C., Hof, P.R., Zilles, K.: Lamination of the lateral geniculate nucleus of catarrhine primates. *Brain Behav. Evol.* 81: 93-108 (2013)

558. Palomero-Gallagher, N., Zilles, K.: Neurotransmitter receptor alterations in hepatic encephalopathy: A review. *Arch. Biochem. Biophys.* 536: 109-121 (2013)
559. Palomero-Gallagher, N., Zilles, K., Schleicher, A., Vogt, B.A.: Cyto- and receptor architecture of area 32 in human and macaque brains. *J. Comp. Neurol.* 521: 3272-3286 (2013)
560. Zilles, K., Palomero-Gallagher, N., Amunts, K.: Development of cortical folding during evolution and ontogeny. *TINS* 36: 275-284 (2013) IF: 13,582
561. Zilles, K., Amunts, K.: Individual variability is not noise. *TICS* 17: 153-155 (2013) IF: 16,008
562. Caspers, S., Eickhoff, S.B., Zilles, K., Amunts, K.: Microstructural grey matter parcellation and its relevance for connectome analyses. *NeuroImage* 80: 18-26 (2013)
563. Hoffstaedter, F., Grefkes, C., Zilles, K., Eickhoff, S.B.: The "What" and "When" of self-initiated movements. *Cereb. Cortex* 23: 520-530 (2013)
564. Caspers, J., Zilles, K., Eickhoff, S.B., Schleicher, A., Mohlberg, H., Amunts, K.: Cytoarchitectonical analysis and probabilistic mapping of two extrastriate areas of the human posterior fusiform gyrus. *Brain Struct. Funct.* 218:511–526 (2013) IF: 7,837
565. Kellermann, T.S., Caspers, S., Fox, P.T., Zilles, K., Roski, C., Laird, A.R., Turetsky, B.I., Eickhoff, S.B.: Task-and resting-state functional connectivity of brain regions related to affection and susceptible to cognitive demand. *Neuroimage* 72: 69–82 (2013)
566. Geisler, S., Willuweit, A., Schroeter, M., Zilles, K., Hamacher, Galldicks, N., Shah, N.J., Coenen, H.H., Langen, K.-J.: Detection of remote neuronal reactions in the thalamus and hippocampus induced by rat glioma using the PET tracer *Cis-4-[18F]Fluoro-D-Proline* J. *Cereb. Blood Flow Metabol.* 33: 724-731 (2013)
567. Amunts, K., Lepage, C., Borgeat, L., Mohlberg, H., Dickscheid, T., Rousseau, M.-E., Bludau, S., Lewis, L., Oros-Peusquens, A.-M., Bazin, P.-L., Shah, N.J., Lippert, T., Zilles, K., Evans, A.: The BigBrain – an ultra-high resolution 3D human brain model. *Science* 340: 1472-1475 (2013) IF: 31,201
568. Bauernfeind, A.L., de Sousa, A.A., Avasthi, T., Dobson, S.D., Raghanti, M.A., Lewandowski, A.H., Zilles, K., Semendeferi, K., Allman, J.M., Craig, A.D., Hof, P.R., Sherwood, C.C.: A volumetric comparison of the insular cortex and its subregions in primates. *J. Hum. Evol.* 64: 263-279 (2013)
569. Cieslik, E.C., Zilles, K., Caspers, S., Roski, C., Kellermann, T.S., Jakobs, O., Langner, R., Laird, A.R., Fox, P.T., Eickhoff, S.B.: Is there "One" DLPFC in cognitive action control? Evidence for heterogeneity from co-activation-based parcellation. *Cereb. Cortex* 23: 2677-2689 (2013)
570. Bzdok, D., Langner, R., Schilbach, L., Jakobs, O., Roski, C., Caspers, S., Laird, A.R., Fox, P.T., Zilles, K., Eickhoff, S.B.: Characterization of the temporo-parietal junction by combining data-driven parcellation, complementary connectivity analyses, and functional decoding. *Neuroimage* 81: 381-392 (2013)

571. Rottschy, C., Caspers, S., Roski, C., Reetz, K., Dogan, I., Schulz, J.B., Zilles, K., Laird, A.R., Fox, P.T., Eickhoff, S.B.: Differentiated parietal connectivity of frontal regions for “what” and “where” memory. *Brain Struct. Funct.* 218: 1551–1567 (2013) IF: 7,837
572. Vogt, B.A., Hof, P.R., Zilles, K., Vogt, L.J., Herold, C., Palomero-Gallagher, N.: Cingulate area 32 homologies in mouse, rat, macaque and human: Cytoarchitecture and receptor architecture. *J. Comp. Neurol.* 521:4189-4204 (2013)
573. Gärtner, H., Minnerop, M., Pieperhoff, P., Schleicher, A., Zilles, K., Altenmüller, E., Amunts, K.: Brain morphometry shows effects of long-term musical practice in middle-aged keyboard players. *Front. Psychol.* 4:636 doi: 10.3389/fpsyg.2013.00636 (2013)
574. Bzdok, D., Laird, A., Zilles, K., Fox, P., Eickhoff, S.B.: An investigation of the structural, connectional, and functional sub-specialization in the human amygdala. *Human Brain Mapping*, 34: 3247-3266 (2013)
575. Caspers, J., Palomero-Gallagher, N., Caspers, S., Schleicher, A., Amunts, K., Zilles, K.: Receptor architecture of visual areas in the face and word-form recognition region of the posterior fusiform gyrus. *Brain Struct. Funct.* DOI 10.1007/s00429-013-0646-z (2013)
576. Roski, C., Caspers, S., Langner, R., Laird, A.R., Fox, P.T., Zilles, K., Amunts, K., Eickhoff, S.B.: Adult age differences in intrinsic connectivity within and between visual-attention and sensorimotor networks. *Front. Aging Neurosci.* 5: 67 (2013)
577. Langner, R., Sternkopf, M., Kellermann, T., Grefkes, C., Kurth, F., Schneider, F., Zilles, K., Eickhoff, S.B.: Translating working memory into action: Behavioural and neural evidence for using motor representations in encoding visuo-spatial sequences. *Human Brain Mapping* Published online 00 Month 2013 in Wiley Online Library (wileyonlinelibrary.com) (2013)
578. Hensel, L., Bzdok, D., Müller, V.I., Zilles, K., Eickhoff, S.B.: Neural correlates of explicit social judgments on vocal stimuli. *Cerebral Cortex*, doi:10.1093/cercor/bht307 (2013)
579. Bludau, S., Eickhoff, S.B., Mohlberg, H., Caspers, S., Laird, A.R., Fox, P.T., Schleicher, A., Zilles, K., Amunts, K.: Cytoarchitecture, probability maps and functions of the human frontal pole. *Neuroimage*, <http://dx.doi.org/10.1016/j.neuroimage.2013.05.052> (2013)
580. Clos M, Langner R, Meyer M, Oechslin MS, Zilles K, Eickhoff SB. Effects of prior information on decoding degraded speech: An fMRI study. *Hum. Brain Mapping* 35: 61-74 (2014)
581. Barks, S.K., Bauernfeind, A.L., Bonar, C.J., Cranfield, M.R., de Sousa, A.A., Erwin, J.M., Hopkins, W.D., Lewandowski, A.H., Mudakikwa, A., Phillips, K.A., Raghanti, M.A., Stimpson, C.D., Hof, P.R., Zilles, K., Sherwood, C.C.: Variable temporo-insular cortex neuroanatomy in primates suggests a bottleneck effect in eastern gorillas. *J. Comp. Neurol.* 522: 844–860 (2014)
582. Kuhn, J., Hardenacke, K., Lenartz, D., Gründler, T., Bartsch, C., Mai, J.K., Zilles, K., Bauer, A., Matusch, A., Schulz, R.-J., Noreik, M., Bührle, C., Maintz D, Woopen, C., Häussermann, P., Hellmich, M., Klosterkötter, J., Wiltfang, J., Maarouf, M., Freund, H.-J.,

Sturm, V.: Deep brain stimulation of the nucleus basalis of Meynert in Alzheimer's dementia. *Molecular Psychiatry* (2014, in press) IF: 14,897

583. Caspers, J., Zilles, K., Amunts, K., Laird, A.R., Fox, P.T., Eickhoff, S.B.: Functional characterization and differential co-activation patterns of two cytoarchitectonic visual areas on the human posterior fusiform gyrus. *Human Brain Mapping* (in press 2013)

584. Caspers, J., Zilles, K., Beierle, C., Rottschy, C., Eickhoff, S.B.: A novel meta-analytic approach: Mining frequent co-activation patterns in neuroimaging databases. *Neuroimage* (in press 2013)

585. Herold, C., Bingman, V.P., Ströckens, F., Letzner, S., Sauvage, M., Palomero-Gallagher, N., Zilles, K., Güntürkün, O.: Distribution of neurotransmitter receptors and zinc in the pigeon (*Columba livia*) hippocampal formation: A basis for further comparison with the mammalian hippocampus. *J. Comp. Neurol.* (in press, 2013)

Hoffstaedter, F., Grefkes, C., Roski, C.C., Caspers, S., Zilles, K., Eickhoff, S.B.: Age-related decrease of functional connectivity in a network for movement initiation. *Brain Structure Function* (in press 2013)

B. Books and Book Chapters

1. Schleicher, A., Kretschmann, H.-J., Wingert, F., Zilles, K.: Determination of the number of cells with multiple nucleoli in histological sections. In: E.F. Underwood, R. De Wit, G.A. Moore (eds.) *Proceeding of the Fourth International Congress for Stereology*, pp. 371-374, Washington: U.S. Government Printing Office, 1976.
2. Zilles, K.J.: *Ontogenesis of the Visual System*. *Adv. Anat. Embryol. Cell Biol.*, Bd. 54/3, Springer, Berlin, Heidelberg, New York, 1978.
3. Zilles, K.: *Anatomie und Physiologie*. In: D. Adam (Hrsg.) *Handbuch für den Pharmareferenten*. Vol. 1, pp. 85-167, G. Fischer Verlag, Stuttgart, New York, 1. Auflage, 1980.
4. Zilles, K., Stephan, H., Schleicher, A.: *Quantitative cytoarchitectonics of the cerebral cortices of several prosimian species*. In: E. Armstrong, D. Falk (eds.) *Primate Brain Evolution: Methods and Concepts*, pp. 177-201, Plenum Press, New York and London, 1982.
5. Zilles, K.: *Anatomie und Physiologie*. In: D. Adam (Hrsg.) *Handbuch für den Pharmareferenten in Ausbildung und Praxis. Naturwissenschaftliche Grundlagen*, Band 1, pp. 89-171, G. Fischer Verlag, Stuttgart, New York (2. Auflage), 1984.
6. Zilles, K.: *The Cortex of the Rat. A Stereotaxic Atlas*. Springer Verlag, Berlin, Heidelberg, New York, 1985.
7. Zilles, K., Wree, A.: *Cortex: Areal and laminar structure*. In: G. Paxinos (ed.) *The Rat Nervous System*. Vol. 1, Forebrain and Midbrain, pp. 375-415, Academic Press, Sydney, 1985.

8. Zilles, K.: Morphological studies on brain structures of the NZB mouse: An animal model for the aging human brain? In: J. Traber, W.H. Gispen (eds.) *Senile Dementia of the Alzheimer Type*, pp. 355-365, Springer Verlag, Berlin, Heidelberg, New York, Tokio, 1985.
9. Zilles, K., Demmel, U.: Topographie chirurgisch relevanter Regionen. 15 Anatomische Tafeln. In: H. Pichlmaier und F.W. Schildberg (Hrsg.) *Kirschner«sche allgemeine und spezielle Operationslehre. Die Eingriffe an der Brust und in der Brusthöhle*. Springer Verlag, Berlin, Heidelberg, New York, 1987.
10. Rauber/Kopsch: *Anatomie des Menschen, Lehrbuch und Atlas*. Bd. I-III H. Leonhardt, B. Tillmann, G. Töndury, K. Zilles (Hrsg.) G. Thieme Verlag, Stuttgart 1987

Neben der Tätigkeit als Herausgeber wurden im Band III folgende Kapitel von mir verfaßt oder mitverfaßt:

- a) Töndury, G., Zilles, K.: Entwicklung des Nervensystems, Kap. 2
 - b) Leonhardt, H., Krisch, B., Zilles, K.: Graue und weiße Substanz des Zwischenhirns, Kap. 11
 - c) Zilles, K.: Graue und weiße Substanz der Basalganglien und basaler Vorderhirnstrukturen, Kap. 12
 - d) Zilles, K.: Graue und weiße Substanz des Hirnmantels, Kap.13
 - e) Leonhardt, H., Krisch, B., Zilles, K.: Transmittersysteme im Zentralnervensystem, Kap. 14
 - f) Leonhardt, H., Kubik, St., Leuenberger, P.M., Töndury, G., Zilles, K.: Sinnesorgane, Kap. 15.
11. Zilles, K., Rehkämper, G.: The brain with special reference to its telencephalon, pp. 157-176. In: J. Schwartz (ed.) *Orang-utan Biology*. Oxford University Press, New York, 1988.
 12. Wree, A., Zilles, K., Schleicher, A.: Reduction of plasticity in the primary visual cortex of the rat. In: *Post-Lesion Neural Plasticity*, H. Flohr (ed.) Springer, Berlin, Heidelberg, New York, 1988.
 13. Schleicher, A., Zilles, K.: The use of automated image analysis for quantitative receptor autoradiography, pp. 147-158. In: F.W. van Leeuwen, R.M. Buijs, C.W. Pool, O. Pach (eds.) *Molecular Neuroanatomy*. Elsevier, Amsterdam, 1988.
 14. Zilles, K.: Receptor autoradiography in the hippocampus of man and rat. In: *Structural and Functional Aspects of Neurotransmission in the Hippocampus*. Adv. Anat. Embryol. Cell Biol., Bd. 111, Springer, Berlin Heidelberg, New York, 1988.
 15. Rauber/Kopsch: *Anatomie des Menschen, Lehrbuch und Atlas*. Bd. IV. H. Leonhardt, B. Tillmann, K. Zilles (Hrsg.), G. Thieme Verlag, Stuttgart, 1988.
 16. Zilles, K.: Codistribution of transmitter receptors in the human and rat hippocampus, pp. 171-187. In: V. Chan-Palay, C. Köhler (eds.) *The Hippocampus - New Vistas*. A.R. Liss, New York, 1989.
 17. Zilles, K., Schröder, H., Schröder, U., Horváth, E., Werner, L., Luiten, P.G.M., Maelicke, A., Strosberg, A.D.: Distribution of cholinergic receptors in the rat and

- human neocortex, pp. 212-228. In: Central Cholinergic Synaptic Transmission. M. Frotscher and U. Misgeld (eds.). Birkhäuser, Basel, Boston, Berlin, 1989.
18. Weller, M., Wiedemann, P., Heimann, K., Zilles, K.: Macrophages, fibronectin, transferrin - Major pathogenetic factors in proliferative vitreoretinopathy, pp. 104-108. In: Proliferative Vitreoretinopathy. K. Heimann and P. Wiedemann (eds.). Kaden, Köln, 1989.
 19. Moter, H., Wiedemann, P., Weller, M., Zilles, K.: Characterization of vitreous proteins by isoelectric focusing, pp. 113-117. In: Proliferative Vitreoretinopathy. K. Heimann and P. Wiedemann (eds.) Kaden, Köln, 1989.
 20. Bresgen, M., Wiedemann, P., Heimann, K., Zilles, K.: Early characterization of vitreous derived growth factor(s) for retinal pigment epithelial cells, pp. 306-310. In: Proliferative Vitreoretinopathy. K. Heimann and P. Wiedemann (eds.) Kaden, Köln, 1989.
 21. Zilles, K.: Anatomy of the neocortex. Cyto- and myeloarchitecture, pp. 77-112. In: B.F. Kolb and R.C. Tees (eds.) The Cerebral Cortex of the Rat. MIT Press, Cambridge, 1990
 22. Zilles, K., Wree, A., Dausch, N.-D.: Anatomy of the neocortex. Neurochemical organization, pp. 113-150. In: B.F. Kolb and R.C. Tees (eds.) The Cerebral Cortex of the Rat. MIT Press, Cambridge, 1990
 23. Zilles, K.: Cortex, pp. 757-802. In: G. Paxinos (ed.) The Human Nervous System. Academic Press, San Diego, 1990
 24. Zilles, K.: Codistribution of Receptors in the Human Cerebral Cortex, pp. 165-206. In: F.A.O. Mendelsohn and G.E. Paxinos (eds.) Receptors in the Human Nervous System. Academic Press, San Diego, 1991
 25. Zilles, K.: Cortex, pp. 673-687. In: Encyclopedia of Human Biology, Vol. 2. R. Dulbecco (ed.). Academic Press, San Diego, 1991
 26. Gebhard, R., Zilles, K. and Armstrong, E.: Gross anatomy and gyrification of the occipital cortex in human and non-human primates, pp. 101-109. In: Gulyas, B., Ottoson, D., Roland, P. (eds.) Functional Organization of the Human Visual Cortex. Pergamon Press, Oxford 1993
 27. Zilles, K. and Schleicher, A.: Cyto- and myeloarchitecture of human visual cortex and the periodical GABA_A receptor distribution, pp. 111-122. In: Gulyas, B., Ottoson, D., Roland, P. (eds.) Functional Organization of the Human Visual Cortex. Pergamon Press, Oxford 1993
 28. Zilles, K. und Rehkämper, G.: Funktionelle Neuroanatomie. 1. Auflage. Springer-Verlag, Heidelberg 1993.
 29. Zilles, K. und Rehkämper, G.: Funktionelle Neuroanatomie. 2. Auflage. Springer-Verlag, Heidelberg 1994.

30. Domann, R., Kraemer, M., Zilles, K., Freund, H.-J., Witte, O.W.: Hirninsult und Epilepsie: Veränderungen von neuronalen Hemmungen in der Umgebung kortikaler Infarkte, pp. 255-262. In: H. Stefan, R. Canger, G. Spiel (eds.) Epilepsie 1993. Einhorn Verlag (1994)
31. Zilles, K., Wree, A.: Cortex: Areal and laminar structure. In: G. Paxinos (ed.) The Rat Nervous System, pp. 649-685. Second Edition. Academic Press, San Diego 1995.
32. Zilles, K. and Schleicher, A.: Correlative imaging of transmitter receptor distributions in human cortex, pp. 277-307. In: W.E. Stumpf and H.F. Solomon (eds.) Autoradiography and Correlative Imaging. Academic Press, San Diego (1995)
33. Zilles, K., Schlaug, G., Geyer, S., Luppino, G., Matelli, M., Qü, M., Schleicher, A., Schormann, T.: Anatomy and transmitter receptors of the supplementary motor areas in the human and nonhuman primate brain, pp. 29-43. In: Hans O. Lüders (ed.), Advances in Neurology, vol. 70: Supplementary Sensorimotor Area. Lippincott-Raven, Philadelphia (1996)
34. Wise, S.P., Fried, I., Olivier, A., Paus, T., Rizzolatti, G., Zilles, K.J.: Workshop on the anatomical definition and boundaries of the supplementary sensorimotor area, pp. 489-495. In: Hans O. Lüders (ed.), Advances in Neurology, vol. 70: Supplementary Sensorimotor Area. Lippincott-Raven, Philadelphia (1996)
35. Zilles, K. and Clarke, S.: Architecture, connectivity and transmitter receptors of human extrastriate visual cortex: Comparison with non-human primates, pp. 673-742. In: J. H. Kaas, K. S. Rockland, A. Peters (eds.) Cerebral Cortex, vol. 12, Extrastriate Cortex in Primates. Plenum Press, New York and London (1997)
36. Zilles, K.: Cortex, pp. 35-49. In: Encyclopedia of Human Biology. Vol. 3. R. Dulbecco (ed.). Second Edition, Academic Press, San Diego (1997)
37. Schormann, T., Dabringhaus, A., Zilles, K.: Extension of the principal axes theory for the determination of affine transformations. In: Mustererkennung 1997 (E. Paulus and F.M. Wahl, eds.), pp. 384-391. Springer, Berlin (1997).
38. Henn, S., Schormann, T., Engler, K., Zilles, K., Witsch, K.: Elastische Anpassung in der digitalen Bildverarbeitung auf mehreren Auflösungsstufen mit Hilfe von Mehrgitterverfahren. In: Mustererkennung 1997 (E. Paulus and F.M. Wahl, eds.), pp. 392-399. Springer, Berlin (1997).
39. Rauber/Kopsch: Anatomie des Menschen, Lehrbuch und Atlas. Bd. I, 2. Auflage. H. Leonhardt, B. Tillmann, G. Töndury, K. Zilles (Hrsg.) G. Thieme Verlag, Stuttgart 1998
40. Kötter, R., Schirok, D., Zilles, K.: Dopamine-mediated dephosphorylation of N/P-type calcium channels in striatal neurons: A quantitative model, pp. 95-106. In: Holcombe, M. and Paton, R. (eds.) Information Processing in Cells and Tissues. Plenum Press, New York (1998)
41. Zilles, K. und Rehkämper, G.: Funktionelle Neuroanatomie. 3. Auflage. Springer-Verlag, Heidelberg 1998.

42. Uylings, H.B.M., Malofeeva, L.I., Bogolepova, I.N., Amunts, K., Zilles, K.: Broca's language area from a neuroanatomical and developmental perspective, pp. 319-336. In: C.M. Brown and P. Hagoort (eds.) *Neurocognition of Language*. Oxford University Press, Oxford (1999)
43. Schormann, T., Henn, S., Zilles, K.: A hierarchical technique for computerized brain-atlases, pp. 161-169. In Spetzger, U., Stiehk, H.S., Gilsbach, J.M. (eds.) *Navigated Brain Surgery*. Wissenschaftsverlag Mainz, Aachen (1999)
44. Zilles, K.: Neurodevelopment, pp. 177-181. In M.G. Gelder, J.J. López-Ibor, N.C. Andreasen (eds.) *New Oxford Textbook of Psychiatry*, Vol. 1. Oxford University Press, Oxford (2000)
45. Zilles, K.: Anatomie des Blutkreislaufs. In: *Der Schlaganfall* (A. Hartmann und W.-D. Heiss, Hrsg.). Steinkopff, Darmstadt (2001)
46. Amunts, K., Zilles, K.: Advances in cytoarchitectonic mapping of the human cerebral cortex, pp.151-169. In: *Neuroimaging Clinics of North America*, Vol. 11 (T. Naidich, T. Yousry, V. Mathews, eds.). W.B. Saunders Company, A. Harcourt Health Sciences Company: Philadelphia (2001)
47. MacLeod, C. E., Zilles, K., Schleicher, A., Gibson, K. R.: The cerebellum: An asset to hominoid cognition, pp. 35–53. In: *All Apes Great and Small. African Apes*, Vol. I (B. M. F. Galdikas, N. E. Briggs, L. K. Sheeran, G. L. Shapiro, J. Goodall, eds.). Kluwer Academic/Plenum Publishers: New York (2001)
48. Amunts, K., Schleicher, A., Zilles, K.: Architectonic mapping of the human cerebral cortex, pp. 29-52. In: *Cortical Areas: Unity and Diversity*, A. Schüz and R. Miller (eds) Taylor & Francis: London, New York (2002)
49. Zilles, K., Schleicher, A., Palomero-Gallagher, N., Amunts, K.: Quantitative analysis of cyto- and receptorarchitecture of the human brain, pp. 573-602. In: *Brain Mapping: The Methods*, 2nd edition (A.W. Toga and J.C. Mazziotta, eds.). Academic Press (2002)
50. Kircheis, G., Zafiris, O., Rood, H.-A., Boers, F., Zilles, K., Häussinger, D.: Analysis of critical flicker frequency threshold in hepatic encephalopathy: dynamics and cortical activations. In: *Encephalopathy and Nitrogen Metabolism in Liver Failure* (Jones, E.A., Meijer, A.J., Chamuleau, R.A.F.M., eds.), pp. 93-103. Kluwer, Dordrecht (2003)
51. Schliess, F., Görg, B., Foster, N., Bidmon, H.-J., Reinehr, R., Fischer, R., Desjardins, P., Warskulat, U., Butterworth, R.F., Zilles, K., Häussinger, D.: Astroglial protein tyrosine nitration by ammonia. In: *Encephalopathy and Nitrogen Metabolism in Liver Failure* (Jones, A.E., Meijer, A.J., Chamuleau, R.A.F.M., eds.), pp. 287-297. Kluwer, Dordrecht (2003)
52. Amunts, K., Eickhoff, S., Zilles, K.: Multimodal mapping of human cerebral cortex - individual variability, pp. 16-20. In: *Psychiatric Imaging* (Ng, V., Barker, G.J., Hendler, T., eds.). IOS Press, Amsterdam (2003)
53. Zilles, K.: Fibre tracts and structural connectivity in the human brain: What anatomy can contribute. *Syllabus: Educational Course ISMRM*, pp. 241-246 (2003)

54. Tass, P.A., Fieseler, T., Dammers, J., Dolan, K., Morosan, P., Majtanik, M., Boers, F., Muren, A., Zilles, K., Fink, G.R.: Synchronization tomography: Anatomical localization of synchronized brain rhythms with magnetoencephalography. In: NIC Symposium 2004, pp. 377-386 (Dietrich Wolf, Gernot Münster, Manfred Kremer, Eds.), John von Neumann Institute for Computing, Jülich, NIC Series, Vol. 20, ISBN 3-00-012372-5, (2003)
55. Zilles, K.: Architecture of the human cerebral cortex: Regional and laminar organization. In: The Human Nervous System (G. Paxinos, J. K. Mai, eds.), pp. 997-1055. Elsevier Academic Press, Amsterdam (2004)
56. Matelli, M., Luppino, G., Geyer, S., Zilles, K.: Motor cortex. In: The Human Nervous System (G. Paxinos, J. K. Mai, eds.), pp. 975-996. Elsevier Academic Press, Amsterdam (2004)
57. Palomero-Gallagher, N., Zilles, K.: The rat isocortex. In: The Rat Nervous System (Paxinos, G., ed.), pp. 729-757. Elsevier Academic Press, Amsterdam (2004)
58. Morosan, P., Rademacher, J., Palomero-Gallagher, N., Zilles, K.: Anatomical organization of the human auditory cortex: Cytoarchitecture and transmitter receptors. In: The Auditory Cortex – A Synthesis of Human and Animal Research (R. König, P. Heil, E. Budinger, H. Scheich, eds.), pp. 27-50. Lawrence Erlbaum Ass., Mahwah, New Jersey (2005)
59. Zilles, K.: Evolution of the human brain and comparative cyto- and receptor architecture. In: From Monkey Brain to Human Brain (S. Dehaene, J.-R. Duhamel, M. Hauser, G. Rizzolatti, eds.), pp. 41-56. MIT Press, Cambridge (2005)
60. Geyer, S., Zilles, K.: Functional neuroanatomy of human motor cortex. In: Higher-Order Motor Disorders (H.-J. Freund, M. Jeannerod, M. Hallett, R. Leiguarda, eds.), pp. 3-22. Oxford University Press, Oxford (2005)
61. Schleicher, A., Zilles, K.: The verticality index: A quantitative approach to the analysis of the columnar arrangement of neurons in the primate neocortex. In: Neocortical Modularity and the Cell Minicolumn (M.F. Casanova, ed.), pp. 181-185. Nova Biomedical Books, New York (2005)
62. Bauer, A., Zilles, K.: Positron Emission Tomography (PET) in the development of brain active drugs. In: New Developments and Challenges in Primate Toxicology (G. F. Weinbauer, E. Buse, W. Müller, F. Vogel, eds.), pp. 113-129. Waxmann, Münster (2005)
63. Zilles, K.: Architektonik und funktionelle Neuroanatomie der Hirnrinde des Menschen. In: Neurobiologie psychischer Störungen (H. Förstl, M. Hautzinger, G. Roth, Hrsg.), pp. 75-140. Springer, Heidelberg (2006)
64. Amunts, K., Zilles, K.: Atlases of the human brain: Tools for functional neuroimaging. In: Neuroanatomical Tract-Tracing 3 – Molecules, Neurons, Systems (Zaborszky, L., Wouterlood, F.G., Lanciego, J.L., eds.), pp. 566-603. Springer, New York (2006)

65. Palomero-Gallagher, N., Reifenberger, G., Kostopoulos, G., Kircheis, G., Häussinger, D., Zilles, K.: Neurotransmitter receptor alterations in hepatic encephalopathy. In: Hepatic encephalopathy and nitrogen metabolism (eds. D. Häussinger, G. Kircheis, F. Schliess), pp. 255-272. Springer, Dordrecht (2006)
66. Shah, N.J., Neeb, H., Kircheis, G., Häussinger, D., Zilles, K.: Quantitative T₁ and water mapping in hepatic encephalopathy. In: Hepatic encephalopathy and nitrogen metabolism (eds. D. Häussinger, G. Kircheis, F. Schliess), pp. 273-283. Springer, Dordrecht (2006)
67. Kircheis, G., Zafiris, O., Zilles, K., Häussinger, D.: Neurophysiological basis of critical flicker frequency (CFF) analysis. In: Hepatic encephalopathy and nitrogen metabolism (eds. D. Häussinger, G. Kircheis, F. Schliess), pp. 481-494. Springer, Dordrecht (2006)
68. Amunts, K., Zilles, K.: A multimodal analysis of structure and function in Broca's region. In: Broca's Region (eds. Y. Grodzinski, K. Amunts), pp. 17-30. Oxford University Press, New York (2006)
69. Fink, G., Manjali, Z.M., Stephan, K.E., Gurd, J.M., Zilles, K., Amunts, K., Marshall, J.C.: A role for Broca's area beyond language processing: Evidence from neuropsychology and fMRI. In: Broca's Region (eds. Y. Grodzinski, K. Amunts), pp. 254-270. Oxford University Press (2006)
70. Amunts, K., Zilles, K.: Hirnatlas. In: Neuropsychologie der Schizophrenie: Symptome, Kognition, Gehirn (Hrsg. T. Kircher, S. Gauggel), pp. 626-648. Springer, Heidelberg (2007)
71. Palomero-Gallagher, N., Zilles, K.: Transmitter receptor systems in cingulate regions and areas. In: Cingulate Neurobiology and Disease (Vogt, B.A., ed.), pp. 31-63. Oxford University Press, New York (2009)
72. Zilles, K., Tillmann, B. (Eds.): Anatomie. Springer, Heidelberg (2010)
73. Tillmann, B.N., Zilles, K., Bolte, H.: Einführung in die Anatomie und bildgebende Verfahren. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 2-19. Heidelberg, Springer, (2010).
74. Zilles, K.: Transmitter und Rezeptoren: Molekulare Grundlagen der Neurotransmission. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 609-614. Heidelberg, Springer, (2010).
75. Amunts, K., Zilles, K.: Makroskopische und mikroskopische Anatomie von Gehirn und Rückenmark. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 614-641. Heidelberg, Springer, (2010).
76. Zilles, K.: Hirn- und Spinalnerven. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 648-657. Heidelberg, Springer, (2010).
77. Zilles, K.: Blutgefäße des Gehirns und Rückenmarks. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 657-665. Heidelberg, Springer, (2010).
78. Zilles, K.: Zentraler Teil des visuellen Systems. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 684-692. Heidelberg, Springer, (2010).
79. Zilles, K.: Epikritische Sensibilität und Sinnesorgane. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 711-717. Heidelberg, Springer, (2010).

80. Zilles, K.: Propriozeption und Sinnesorgane. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 717-722. Heidelberg, Springer, (2010).
81. Zilles, K.: Gustatorisches System und Sinnesorgane. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 728-730. Heidelberg, Springer, (2010).
82. Zilles, K.: Motorisches System, Kleinhirn und extrapyramidal-motorisches System. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 730-742. Heidelberg, Springer, (2010).
83. Zilles, K.: Olfaktorisches System und Sinnesorgane. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 742-745. Heidelberg, Springer, (2010).
84. Wree, A., Schmitt, O., Zilles, K.: Limbisches System. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 745-748. Heidelberg, Springer, (2010).
85. Zilles, K.: Gedächtnis. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 751-755. Heidelberg, Springer, (2010).
86. Zilles, K.: Entwicklung des Nervensystems. In: Anatomie (K. Zilles, B. Tillmann, eds.), pp. 757-765. Heidelberg, Springer, (2010).
87. Zilles, K.: Oskar Vogt ein Wegbereiter der Hirnforschung. In: Life Sciences. Die Neukonstruktion des Menschen? (Bammé, A., ed.), pp. 35-75. Profil-Verlag, München, Wien (2011)
88. Zilles, K. and Amunts, K.: Architecture of the Human Cerebral Cortex: Maps, Regional and Laminar Organization. In: The Human Nervous System (G. Paxinos, J. K. Mai, eds.), Third Edition, pp. 836-895. Elsevier Academic Press, San Diego (2012)
89. Caspers, S., Amunts, K., Zilles, K.: Posterior parietal cortex: Multimodal association cortex. In: The Human Nervous System (G. Paxinos, J. K. Mai, eds.), Third Edition, pp. 1036-1055. Elsevier Academic Press, San Diego (2012)
90. Amunts, K., Morosan, P., Hilbig, H., Zilles, K.: Auditory system. In: The Human Nervous System (G. Paxinos, J. K. Mai, eds.), Third Edition, pp. 1270-1300. Elsevier Academic Press, San Diego (2012)
91. Caspers, J., Zilles, K., Eickhoff; S.B., Beierle, C.: Coordinate-based pattern-mining on functional neuroimaging databases. In: IPMU 2012, Part I, CCIS 297 (Eds. Greco, S. et al.), 240–249. Springer, Berlin Heidelberg (2012)
92. Amunts, K., Zilles, K.: Funktionelle Neuroanatomie. In: Funktionelle MRT in Psychiatrie und Neurologie, 2. Auflage (Hrsg. F. Schneider, G.R. Fink), pp.7-60. Springer, Heidelberg (2013)
93. Amunts, K., Zilles, K.: Hirnatlas. In: Funktionelle MRT in Psychiatrie und Neurologie, 2. Auflage (Hrsg. F. Schneider, G.R. Fink), pp. 753-777. Springer, Heidelberg (2013)
94. Zilles, K.: Exkurs: Das Gehirn des Schimpansen: ein kleines Menschenhirn? In: Evolutionsbiologie (Eds. Storch, V., Welsch, U., Wink, M.), 440-443. Springer, Heidelberg (2013)