

## References

- Ackert JM, Wu SH, Lee JC, Abrams J, Hu EH, Perlman I, Bloomfield SA. 2006. Light-induced changes in spike synchronization between coupled ON direction selective ganglion cells in the mammalian retina. *J Neurosci* 26(16):4206-4215.
- Akerman CJ, Smyth D, Thompson ID. 2002. Visual experience before eye-opening and the development of the retinogeniculate pathway. *Neuron* 36(5):869-879.
- Ames A, 3rd, Nesbitt FB. 1981. In vitro retina as an experimental model of the central nervous system. *J Neurochem* 37(4):867-877.
- Amthor FR, Oyster CW, Takahashi ES. 1984. Morphology of on-off direction-selective ganglion cells in the rabbit retina. *Brain Res* 298(1):187-190.
- Amthor FR, Takahashi ES, Oyster CW. 1989. Morphologies of rabbit retinal ganglion cells with complex receptive fields. *J Comp Neurol* 280(1):97-121.
- Amthor FR, Takahashi ES, Oyster CW. 1989. Morphologies of rabbit retinal ganglion cells with concentric receptive fields. *J Comp Neurol* 280(1):72-96.
- Badea TC, Nathans J. 2004. Quantitative analysis of neuronal morphologies in the mouse retina visualized by using a genetically directed reporter. *J Comp Neurol* 480(4):331-351.
- Barlow HB, Levick WR. 1965. The mechanism of directionally selective units in rabbit's retina. *J Physiol* 178(3):477-504.
- Bonaventure N, Goswamy S, Karli P. 1971. Electroretinogram (ERG) and visual evoked response (VER) in rabbits reared in total darkness or continuous illumination. *Doc Ophthalmol* 30:339-347.
- Chalupa LM, Gunhan E. 2004. Development of On and Off retinal pathways and retinogeniculate projections. *Prog Retin Eye Res* 23(1):31-51.
- Chow KL, Riesen AH, Newell FW. 1957. Degeneration of retinal ganglion cells in infant chimpanzees reared in darkness. *J Comp Neurol* 107(1):27-42.
- Cohen-Cory S, Lom B. 2004. Neurotrophic regulation of retinal ganglion cell synaptic connectivity: from axons and dendrites to synapses. *Int J Dev Biol* 48(8-9):947-956.
- Connaughton VP, Graham D, Nelson R. 2004. Identification and morphological classification of horizontal, bipolar, and amacrine cells within the zebrafish retina. *J Comp Neurol* 477(4):371-385.
- Dann JF, Buhl EH, Peichl L. 1987. Dendritic maturation in cat retinal ganglion cells: a Lucifer yellow study. *Neurosci Lett* 80(1):21-26.
- Dann JF, Buhl EH, Peichl L. 1988. Postnatal dendritic maturation of alpha and beta ganglion cells in cat retina. *J Neurosci* 8(5):1485-1499.
- Deich C, Seifert B, Peichl L, Reichenbach A. 1994. Development of dendritic trees of rabbit retinal alpha ganglion cells: relation to differential retinal growth. *Vis Neurosci* 11(5):979-988.
- Demas J, Eglen SJ, Wong RO. 2003. Developmental loss of synchronous spontaneous activity in the mouse retina is independent of visual experience. *J Neurosci* 23(7):2851-2860.
- Der G, Everitt BS. 2002. A handbook of statistical analyses using SAS. Boca Raton, Fla. 2002.: Chapman & Hall/CRC.
- Devries SH, Baylor DA. 1997. Mosaic arrangement of ganglion cell receptive fields in rabbit retina. *J Neurophysiol* 78(4):2048-2060.
- Diao L, Sun W, Deng Q, He S. 2004. Development of the mouse retina: emerging morphological diversity of the ganglion cells. *J Neurobiol* 61(2):236-249.
- Famiglietti EV. 1992. New metrics for analysis of dendritic branching patterns

- demonstrating similarities and differences in ON and ON-OFF directionally selective retinal ganglion cells. *J Comp Neurol* 324(3):295-321.
- Famiglietti EV, Jr., Kolb H. 1976. Structural basis for ON-and OFF-center responses in retinal ganglion cells. *Science* 194(4261):193-195.
- Feller MB. 2003. Visual system plasticity begins in the retina. *Neuron* 39(1):3-4.
- Gan WB, Grutzendler J, Wong WT, Wong RO, Lichtman JW. 2000. Multicolor "DiOlistic" labeling of the nervous system using lipophilic dye combinations. *Neuron* 27(2):219-225.
- Guenther E, Schmid S, Wheeler-Schilling T, Albach G, Grunder T, Fauser S, Kohler K. 2004. Developmental plasticity of NMDA receptor function in the retina and the influence of light. *FASEB J* 18(12):1433-1435.
- Gunhan-Agar E, Kahn D, Chalupa LM. 2000. Segregation of on and off bipolar cell axonal arbors in the absence of retinal ganglion cells. *J Neurosci* 20(1):306-314.
- He S, Masland RH. 1998. ON direction-selective ganglion cells in the rabbit retina: dendritic morphology and pattern of fasciculation. *Vis Neurosci* 15(2):369-375.
- Kong JH, Fish DR, Rockhill RL, Masland RH. 2005. Diversity of ganglion cells in the mouse retina: Unsupervised morphological classification and its limits. *J Comp Neurol* 489(3):293-310.
- Krug K, Akerman CJ, Thompson ID. 2001. Responses of neurons in neonatal cortex and thalamus to patterned visual stimulation through the naturally closed lids. *J Neurophysiol* 85(4):1436-1443.
- Lau KC, So KF, Tay D. 1990. Effects of visual or light deprivation on the morphology, and the elimination of the transient features during development, of type I retinal ganglion cells in hamsters. *J Comp Neurol* 300(4):583-592.
- Lee EJ, Merwine DK, Mann LB, Grzywacz NM. 2005. Ganglion cell densities in normal and dark-reared turtle retinas. *Brain Res* 1060(1-2):40-46.
- Leventhal AG, Hirsch HV. 1983. Effects of visual deprivation upon the morphology of retinal ganglion cells projecting to the dorsal lateral geniculate nucleus of the cat. *J Neurosci* 3(2):332-344.
- Lin B, Wang SW, Masland RH. 2004. Retinal ganglion cell type, size, and spacing can be specified independent of homotypic dendritic contacts. *Neuron* 43(4):475-485.
- Lohmann C, Myhr KL, Wong RO. 2002. Transmitter-evoked local calcium release stabilizes developing dendrites. *Nature* 418(6894):177-181.
- Lom B, Cogen J, Sanchez AL, Vu T, Cohen-Cory S. 2002. Local and target-derived brain-derived neurotrophic factor exert opposing effects on the dendritic arborization of retinal ganglion cells in vivo. *J Neurosci* 22(17):7639-7649.
- Lom B, Cohen-Cory S. 1999. Brain-derived neurotrophic factor differentially regulates retinal ganglion cell dendritic and axonal arborization in vivo. *J Neurosci* 19(22):9928-9938.
- MacNeil MA, Heussay JK, Dacheux RF, Raviola E, Masland RH. 1999. The shapes and numbers of amacrine cells: matching of photofilled with Golgi-stained cells in the rabbit retina and comparison with other mammalian species. *J Comp Neurol* 413(2):305-326.
- Masland RH. 1977. Maturation of function in the developing rabbit retina. *J Comp Neurol* 175(3):275-286.
- Masland RH. 2001. The fundamental plan of the retina. *Nat Neurosci* 4(9):877-886.
- Maslim J, Webster M, Stone J. 1986. Stages in the structural differentiation of retinal ganglion cells. *J Comp Neurol* 254(3):382-402.
- Mehta V, Sernagor E. 2006. Early neural activity and dendritic growth in turtle retinal ganglion cells. *Eur J Neurosci* 24(3):773-786.

- Morgan J, Huckfeldt R, Wong RO. 2005. Imaging techniques in retinal research. *Exp Eye Res* 80(3):297-306.
- Mumm JS, Godinho L, Morgan JL, Oakley DM, Schroeter EH, Wong RO. 2005. Laminar circuit formation in the vertebrate retina. *Prog Brain Res* 147:155-169.
- O'Brien J, Lummis SC. 2004. Biolistic and diolistic transfection: using the gene gun to deliver DNA and lipophilic dyes into mammalian cells. *Methods* 33(2):121-125.
- Peichl L, Buhl EH, Boycott BB. 1987. Alpha ganglion cells in the rabbit retina. *J Comp Neurol* 263(1):25-41.
- Peichl L, Ott H, Boycott BB. 1987. Alpha ganglion cells in mammalian retinae. *Proc R Soc Lond B Biol Sci* 231(1263):169-197.
- Pu ML, Amthor FR. 1990. Dendritic morphologies of retinal ganglion cells projecting to the lateral geniculate nucleus in the rabbit. *J Comp Neurol* 302(3):675-693.
- Pu ML, Amthor FR. 1990. Dendritic morphologies of retinal ganglion cells projecting to the nucleus of the optic tract in the rabbit. *J Comp Neurol* 302(3):657-674.
- Reuter JH. 1976. The development of the electroretinogram in normal and light-deprived rabbits. *Pflugers Arch* 363(1):7-13.
- Reuter JH, Legein CP, van der Mark F, van Hof MW. 1971. The electroretinogram in normal and light-deprived rabbits. *Doc Ophthalmol* 30:349-361.
- Robinson SR. 1991. Development of the Mammalian Retina. In: Robinson BDaSR, editor. *Vision and Visual Dysfunction*: CRC press, Inc. p 69~128.
- Rockhill RL, Daly FJ, MacNeil MA, Brown SP, Masland RH. 2002. The diversity of ganglion cells in a mammalian retina. *J Neurosci* 22(9):3831-3843.
- Seki M, Nawa H, Fukuchi T, Abe H, Takei N. 2003. BDNF is upregulated by postnatal development and visual experience: quantitative and immunohistochemical analyses of BDNF in the rat retina. *Invest Ophthalmol Vis Sci* 44(7):3211-3218.
- Sernagor E, Eglen SJ, Wong RO. 2001. Development of retinal ganglion cell structure and function. *Prog Retin Eye Res* 20(2):139-174.
- Sernagor E, Grzywacz NM. 1995. Emergence of complex receptive field properties of ganglion cells in the developing turtle retina. *J Neurophysiol* 73(4):1355-1364.
- Sernagor E, Grzywacz NM. 1996. Influence of spontaneous activity and visual experience on developing retinal receptive fields. *Curr Biol* 6(11):1503-1508.
- Sernagor E, Grzywacz NM. 1999. Spontaneous activity in developing turtle retinal ganglion cells: pharmacological studies. *J Neurosci* 19(10):3874-3887.
- Sherman SM, Stone J. 1973. Physiological normality of the retina in visually deprived cats. *Brain Res* 60(1):224-230.
- Stacy RC, Wong RO. 2003. Developmental relationship between cholinergic amacrine cell processes and ganglion cell dendrites of the mouse retina. *J Comp Neurol* 456(2):154-166.
- Sun W, Li N, He S. 2002. Large-scale morphological survey of rat retinal ganglion cells. *Vis Neurosci* 19(4):483-493.
- Sun W, Li N, He S. 2002. Large-scale morphological survey of mouse retinal ganglion cells. *J Comp Neurol* 451(2):115-126.
- Syed MM, Lee S, He S, Zhou ZJ. 2004. Spontaneous waves in the ventricular zone of developing mammalian retina. *J Neurophysiol* 91(5):1999-2009.
- Syed MM, Lee S, Zheng J, Zhou ZJ. 2004. Stage-dependent dynamics and modulation of spontaneous waves in the developing rabbit retina. *J Physiol* 560(Pt 2):533-549.
- Tian N. 2004. Visual experience and maturation of retinal synaptic pathways. *Vision Res* 44(28):3307-3316.
- Tian N, Copenhagen DR. 2001. Visual deprivation alters development of synaptic function in inner retina after eye opening. *Neuron* 32(3):439-449.

- Tian N, Copenhagen DR. 2003. Visual stimulation is required for refinement of ON and OFF pathways in postnatal retina. *Neuron* 39(1):85-96.
- Vistamehr S, Tian N. 2004. Light deprivation suppresses the light response of inner retina in both young and adult mouse. *Vis Neurosci* 21(1):23-37.
- Walker GA. 2002. Common statistical methods for clinical research with SAS examples.[electronic resource]: NetLibrary, Inc.
- Wassle H. 2004. Parallel processing in the mammalian retina. *Nat Rev Neurosci* 5(10):747-757.
- Wassle H, Riemann HJ. 1978. The mosaic of nerve cells in the mammalian retina. *Proc R Soc Lond B Biol Sci* 200(1141):441-461.
- Wassle H, Voigt T, Patel B. 1987. Morphological and immunocytochemical identification of indoleamine-accumulating neurons in the cat retina. *J Neurosci* 7(5):1574-1585.
- Weng S, Sun W, He S. 2005. Identification of ON-OFF direction-selective ganglion cells in the mouse retina. *J Physiol* 562(Pt 3):915-923.
- Wingate RJ, Thompson ID. 1994. Targeting and activity-related dendritic modification in mammalian retinal ganglion cells. *J Neurosci* 14(11 Pt 1):6621-6637.
- Wong RO. 1990. Differential growth and remodelling of ganglion cell dendrites in the postnatal rabbit retina. *J Comp Neurol* 294(1):109-132.
- Wong RO. 1999. Retinal waves and visual system development. *Annu Rev Neurosci* 22:29-47.
- Wong RO, Collin SP. 1989. Dendritic maturation of displaced putative cholinergic amacrine cells in the rabbit retina. *J Comp Neurol* 287(2):164-178.
- Wong RO, Ghosh A. 2002. Activity-dependent regulation of dendritic growth and patterning. *Nat Rev Neurosci* 3(10):803-812.
- Wong ROL, Godinho L. 2003. Development of the Vertebrate Retina. In: Werner LM, editor. *The Visual Neuroscience*: MIT press. p 77-93.
- Wong WT, Wong RO. 2000. Rapid dendritic movements during synapse formation and rearrangement. *Curr Opin Neurobiol* 10(1):118-124.
- Wong WT, Wong RO. 2001. Changing specificity of neurotransmitter regulation of rapid dendritic remodeling during synaptogenesis. *Nat Neurosci* 4(4):351-352.
- Wyatt HJ, Daw NW. 1975. Directionally sensitive ganglion cells in the rabbit retina: specificity for stimulus direction, size, and speed. *J Neurophysiol* 38(3):613-626.
- Xu H, Tian N. 2004. Pathway-specific maturation, visual deprivation, and development of retinal pathway. *Neuroscientist* 10(4):337-346.
- Xue J, Cooper NG. 2001. The modification of NMDA receptors by visual experience in the rat retina is age dependent. *Brain Res Mol Brain Res* 91(1-2):196-203.
- Yang G, Masland RH. 1992. Direct visualization of the dendritic and receptive fields of directionally selective retinal ganglion cells. *Science* 258(5090):1949-1952.
- Yang G, Masland RH. 1994. Receptive fields and dendritic structure of directionally selective retinal ganglion cells. *J Neurosci* 14(9):5267-5280.
- Zhang J, Yang Z, Wu SM. 2005. Development of cholinergic amacrine cells is visual activity-dependent in the postnatal mouse retina. *J Comp Neurol* 484(3):331-343.
- Zhou ZJ, Zhao D. 2000. Coordinated transitions in neurotransmitter systems for the initiation and propagation of spontaneous retinal waves. *J Neurosci* 20(17):6570-6577.