

DAFTAR PUSTAKA

- Augello, A., Kurth, T. B. & De Bari, C. 2010. Mesenchymal stem cells: a perspective from in vitro cultures to in vivo migration and niches. *Eur Cell Mater*, 20, e33.
- Balicka, A., Trbolova, A. & Vrbovska, T. 2016. Electroretinography (A Review). *Folia Veterinaria*, 60, 53-58.
- Berson, E. L. 2007. Long-term visual prognoses in patients with retinitis pigmentosa: the Ludwig von Sallmann lecture. *Exp Eye Res*, 85, 7-14.
- Berson, E. L., Rosner, B., Sandberg, M. A., Hayes, K., Nicholson, B. W., Weigel-Difranco, C. & Willett, W. 1993. A randomized trial of vitamin A and vitamin E supplementation for retinitis pigmentosa. *Arch Ophthalmol*, 111, 761-772.
- Berson, E. L., Rosner, B., Sandberg, M. A., Weigel-Difranco, C., Brockhurst, R. J., Hayes, K., Johnson, E. J., Anderson, E. J., Johnson, C. A. & Gaudio, A. R. 2010. Clinical trial of lutein in patients with retinitis pigmentosa receiving vitamin A. *Arch Ophthalmol*, 128, 403.
- Berson, E. L., Rosner, B., Sandberg, M. A., Weigel-Difranco, C., Moser, A., Brockhurst, R. J., Hayes, K., Johnson, C. A., Anderson, E. J. & Gaudio, A. R. 2004. Clinical trial of docosahexaenoic acid in patients with retinitis pigmentosa receiving vitamin a treatment. *Arch Ophthalmol*, 122, 1297-1305.
- Berson, E. L., Rosner, B., Weigel-Difranco, C., Dryja, T. P. & Sandberg, M. A. 2002. Disease progression in patients with dominant retinitis pigmentosa and rhodopsin mutations. *Invest Ophthalmol Vis Sci*, 43, 3027-3036.
- Berson, E. L., Sandberg, M. A., Rosner, B., Birch, D. G. & Hanson, A. H. 1985. Natural course of retinitis pigmentosa over a three-year interval. *Am J Ophthalmol*, 99, 240-251.
- Birch, D. G., Anderson, J. L. & Fish, G. E. 1999. Yearly rates of rod and cone functional loss in retinitis pigmentosa and cone-rod dystrophy1. *Ophthalmol*, 106, 258-268.
- Breitbach, M., Bostani, T., Roell, W., Xia, Y., Dewald, O., Nygren, J. M., Fries, J. W., Tiemann, K., Bohlen, H. & Hescheler, J. 2007. Potential risks of bone marrow cell transplantation into infarcted hearts. *Blood*, 110, 1362-1369.
- Camussi, G., Deregibus, M. C., Bruno, S., Cantaluppi, V. & Biancone, L. 2010. Exosomes/microvesicles as a mechanism of cell-to-cell communication. *Kidney Int*, 78, 838-848.
- Chang, Y.-H., Wu, K.-C., Harn, H.-J., Lin, S.-Z. & Ding, D.-C. 2018. Exosomes and stem cells in degenerative disease diagnosis and therapy. *Cell Transplant*, 27, 349-363.
- Cideciyan, A. V. & Jacobson, S. G. 1993. Negative electroretinograms in retinitis pigmentosa. *Invest Ophthalmol Vis Sci*, 34, 3253-3263.

- Creel, D. J. 2015. The electroretinogram and electro-oculogram: clinical applications by Donnell J. Creel. *Webvision: The Organization of the Retina and Visual System*.
- Dagnelie, G., Zorge, I. S. & McDonald, T. M. 2000. Lutein improves visual function in some patients with retinal degeneration: a pilot study via the Internet. *Optometry (St. Louis, Mo.)*, 71, 147-164.
- De Miguel, M. P., Fuentes-Julian, S. & Alcaina, Y. 2010. Pluripotent stem cells: origin, maintenance and induction. *Stem Cell Rev and Rep*, 6, 633-649.
- Dominici, M., Le Blanc, K., Mueller, I., Slaper-Cortenbach, I., Marini, F., Krause, D., Deans, R., Keating, A., Prockop, D. & Horwitz, E. 2006. Minimal criteria for defining multipotent mesenchymal stromal cells. The International Society for Cellular Therapy position statement. *Cytotherapy*, 8, 315-317.
- Ferrari, S., Di Iorio, E., Barbaro, V., Ponzin, D., Sorrentino, F. & Parmeggiani, F. 2011. Retinitis pigmentosa: genes and disease mechanisms. *Curr Genom*, 12, 238-249.
- Garcia, J. M., Mendonca, L., Brant, R., Abud, M., Regatieri, C., Diniz, B. 2015. Stem cell therapy for retinal diseases. *World J Stem Cells*, 7, 160.
- Geller, A. M. & Sieving, P. A. 1993. Assessment of foveal cone photoreceptors in Stargardt's macular dystrophy using a small dot detection task.
- Geroski, Dayle H., Henry F. Edelhauer. 2000. Drug Delivery for Posterior Segment Eye Disease. *Investig. Ophthalmol. Vis. Sci.* 41.5: 961-964.
- Gregory-Evans K., Pennesi ME., Weleber Rg., Retinitis Pigmentosa and Allied Disorders. In : Ryan SJ, Schachat AP., Wilkinson Cp., Hinton DR., Sadda SR., Wiedemann P., eds. *Retina*. Vol 2. 5th ed. Philadelphia : Elsevier.2013:761-835
- Grover, S., Fishman, G. A., Anderson, R. J., Alexander, K. R. & Derlacki, D. J. 1997. Rate of visual field loss in retinitis pigmentosa. *Ophthalmol*, 104, 460-465.
- Gundongan, F. C., Tas, A., Sobaci, G. 2011. Electroretinogram in hereditary retinal disorders. *Electroretinograms*. IntechOpen.
- Hamel, C. 2006. Retinitis pigmentosa. *Orphanet journal of rare diseases*, 1, 40.
- Han, C., Sun, X., Liu, L., Jiang, H., Shen, Y., Xu, X., Li, J., Zhang, G., Huang, J. & Lin, Z. 2016. Exosomes and their therapeutic potentials of stem cells. *Stem cells Int*, 2016.
- Hartong, D. T., Berson, E. L. & Dryja, T. P. 2006. Retinitis pigmentosa. *The Lancet*, 368, 1795-1809.
- He, Y., Zhang, Y., Liu, X., Ghazaryan, E., Li, Y., Xie, J. & Su, G. 2014. Recent advances of stem cell therapy for retinitis pigmentosa. *Int J Mol Sci*, 15, 14456-14474.
- Henry, T. R. 2003. The history of valproate in clinical neuroscience. *J Psychopharmacol*, 37, 5-16.
- Ho, J. H.-C., Ma, W.-H., Tseng, T.-C., Chen, Y.-F., Chen, M.-H. & Lee, O. K.-S. 2010. Isolation and characterization of multi-potent stem cells from human orbital fat tissues. *Tissue Engineering Part A*, 17, 255-266.

- Hoffman, D. R. & Birch, D. G. 1998. ω 3 Fatty acid status in patients with retinitis pigmentosa. *The Return of ω 3 Fatty Acids into the Food Supply*. Karger Publishers.
- Hoffman, D. R., Locke, K. G., Wheaton, D. H., Fish, G. E., Spencer, R. & Birch, D. G. 2004. A randomized, placebo-controlled clinical trial of docosahexaenoic acid supplementation for X-linked retinitis pigmentosa. *Am J Ophthalmol*, 137, 704-718.
- Holopigian, K., Greenstein, V., Seiple, W. & Carr, R. E. 1996. Rates of change differ among measures of visual function in patients with retinitis pigmentosa. *Ophthalmol*, 103, 398-405.
- Hood, D. C., Bach, M., Brigell, M., Keating, D., Kondo, M., Lyons, J. S., Marmor, M. F., Mcculloch, D. L., Palmowski-Wolfe, A. M. & Vision, I. S. F. C. E. O. 2012. ISCEV standard for clinical multifocal electroretinography (mfERG)(2011 edition). *Doc Ophthalmol*, 124, 1-13.
- Huang, L., Ma, W., Ma, Y., Feng, D., Chen, H. & Cai, B. 2015. Exosomes in mesenchymal stem cells, a new therapeutic strategy for cardiovascular diseases? *Int J Biol Sci*, 11, 238.
- Jarmalaviciute, A. & Pivoriunas, A. 2016. Exosomes as a potential novel therapeutic tools against neurodegenerative diseases. *Pharm Res*, 113, 816-822.
- Jo, C. H., Lee, Y. G., Shin, W. H., Kim, H., Chai, J. W., Jeong, E. C., Kim, J. E., Shim, H., Shin, J. S. & Shin, I. S. 2014. Intra-articular injection of mesenchymal stem cells for the treatment of osteoarthritis of the knee: a proof-of-concept clinical trial. *Stem cells*, 32, 1254-1266.
- Kalaszczynska, I. & Ferdyn, K. 2015. Wharton's jelly derived mesenchymal stem cells: future of regenerative medicine? Recent findings and clinical significance. *BioMed Res Int*, 2015.
- Kim JH, Kim KW, Kim MH, Yu YS. 2009. Intravenously administered gold nanoparticles pass through the blood-retinal barrier depending on the particle size, and induce no retinal toxicity. *Nanotechnology*;20(50):505101
- Klassen, H. 2016. Stem cells in clinical trials for treatment of retinal degeneration. *Expert Opin Biol Ther*, 16, 7-14.
- Kumar, A., Midha, N., Gogia, V., Gupta, S., Sehra, S. & Chohan, A. 2014. Efficacy of oral valproic acid in patients with retinitis pigmentosa. *J Ocul Pharmacol Ther*, 30, 580-586.
- Labrador-Velandia, S., Alonso-Alonso, M. L., Alvarez-Sanchez, S., Ganzalez-Zamora, J., Carretero-Barrio, I., Pastor, J. C., Fernandez-Bueno, I. & Srivastava, G. K. 2016. Mesenchymal stem cell therapy in retinal and optic nerve diseases: An update of clinical trials. *World J Stem Cells*, 8, 376.
- Lai, R. C., Arslan, F., Lee, M. M., Sze, N. S. K., Choo, A., Chen, T. S., Salto-Tellez, M., Timmers, L., Lee, C. N. & El Oakley, R. M. 2010. Exosome secreted by MSC reduces myocardial ischemia/reperfusion injury. *Stem cell Res. J.*, 4, 214-222.

- Lai, R. C., Yeo, R. W. Y. & LIM, S. K. Mesenchymal stem cell exosomes. *Seminars in Cell & Developmental Biology*, 2015. Elsevier, 82-88.
- Lou, G., Chen, Z., Zheng, M. & Liu, Y. 2017. Mesenchymal stem cell-derived exosomes as a new therapeutic strategy for liver diseases. *Exp Mol Med.*, 49, e346.
- Mahmoudi, Mohammad., Mahsa Taghavi-Farahabadi, Nima Rezaei, Seyed Mahmoud Hashemi.2019. Comparison of The Effect of Adipose Tissue Mesenchymal Stromal Cell-derived Exosomes with Conditioned Media on Neutrophil Function and Apoptosis. *Int. J. Immunopharmacol.*74, 105689.
- Majo, F., Rochat, A., Nicolas, M., Jaoude, G. A. & Barradon, Y. 2008. Oligopotent stem cells are distributed throughout the mammalian ocular surface. *Nature*, 456, 250.
- Malgieri, A., Kantzari, E., Patrizi, M. P. & Gambardella, S. 2010. Bone marrow and umbilical cord blood human mesenchymal stem cells: state of the art. *Int J Clin Exp Med.*, 3, 248.
- Marmor, M. F. 1979. The electroretinogram in retinitis pigmentosa. *Arch. Ophthalmol.*, 97, 1300-1304.
- Marmor, M. F. 1980. Visual loss in retinitis pigmentosa. *Am J Ophthalmol.*, 89, 692-698.
- Marone, M., Ritis, D. D., Bonanno, G., Mozzetti, S., Rutella, S., Scambia, G. & Pierelli, L. 2002. Cell cycle regulation in human hematopoietic stem cells: from isolation to activation. *Leukemia & lymphoma*, 43, 493-501.
- Massof, R., Dagnelie, G., Benzchawel, T. & Palmer, R. 1990. First order dynamics of visual field loss in retinitis pigmentosa. *Clin. Vis. Sci.*, 5, 1-26.
- Mcculloch, D. L., Marmor, M. F., Brigell, M. G., Hamilton, R., Holder, G. E., Tzekov, R. & Bach, M. 2015. ISCEV Standard for full-field clinical electroretinography (2015 update). *Doc. Ophthalmol.*, 130, 1-12.
- Miyake, Y. 2006. *Electrodiagnosis of retinal disease*, Springer Science & Business Media.
- Mohand-Said, S., Deudon-Combe, A., Hicks, D., Simonutti, M., Forster, V., Fintz, A.-C., Leveillard, T., Dreyfus, H. & Sahel, J.-A. 1998. Normal retina releases a diffusible factor stimulating cone survival in the retinal degeneration mouse. *Pro. Natl Acad Sci.*, 95, 8357-8362.
- Monti, B., Polazzi, E. & Contestabile, A. 2009. Biochemical, molecular and epigenetic mechanisms of valproic acid neuroprotection. *Curr. Mol. Pharmacol.*, 2, 95-109.
- Murakami, Y., Ikeda, Y., Akiyama, M., Fujiwara, K., Yoshida, N., Nakatake, S., Notomi, S., Nabeshima T., Hisatomi, T. & Enaida, H. 2015. Correlation between macular blood flow and central visual sensitivity in retinitis pigmentosa. *Acta Ophthalmol.*, 93.
- Musarella, M. A. & Macdonald, I. M. 2010. Current concepts in the treatment of retinitis pigmentosa. *J. Ophthalmol.*, 2011.
- N Sahni, J., Angi, M., Irigoyen, C., Semeraro, F., R Romano, M. & Parmeggiani, F. 2011. Therapeutic challenges to retinitis pigmentosa: from neuroprotection to gene therapy. *Curr. Genom.*, 12, 276-284.

- Nagamura-Inoue, T. & He, H. 2014. Umbilical cord-derived mesenchymal stem cells: their advantages and potential clinical utility. *World journal of stem cells*, 6, 195.
- Narayan, D. S., Wood, J. P., Chidlow, G. & Casson, R. J. 2016. A review of the mechanisms of cone degeneration in retinitis pigmentosa. *Acta Ophthalmol.*, 94, 748-754.
- NG, T. K., Fortino, V. R., Pelaez, D. & Cheung, H. S. 2014. Progress of mesenchymal stem cell therapy for neural and retinal diseases. *World J. Stem Cells*, 6, 111.
- Nguyen, H., Sujirakul, T., Kulkarin, N. & Tsang, S. 2013. Understanding retinitis pigmentosa. *Retinal Phys*, 10, 34-42.
- Noailles, A., Maneu, V., Campello, L., Gomez-Vicente, V., Lax, P. & Cuenca, N. 2016. Persistent inflammatory state after photoreceptor loss in an animal model of retinal degeneration. *Sci. Rep.*, 6, 33356.
- Öner, A. 2018. Stem Cell Treatment in Retinal Diseases: Recent Developments. *Turk. J. Ophthalmol.*, 48, 33.
- Ozdemir, H., Karacorlu, M. & Karacorlu, S. 2005. Intravitreal triamcinolone acetonide for treatment of cystoid macular oedema in patients with retinitis pigmentosa. *Acta Ophthalmol.*, 83, 248-251.
- Peng, B., Xiao, J., Wang, K., So, K.-F., Tipoe, G. L. & Lin, B. 2014. Suppression of microglial activation is neuroprotective in a mouse model of human retinitis pigmentosa. *J. Neurosci.*, 34, 8139-8150.
- Quintana, Quinteros M.L., Benedetto, M.M., Maldonado, A.C., Vera de Payer, E., Contin, M.A., 2016. Electroretinography : A Biopotential to Assess The Function or Dysfunction of The Retina. *J. Phys : Conf.Ser.* 705 01 2053
- Raposo, G., Nijman, H. W., Stoorvogel, W., Liejendekker, R., Harding, C. V., Melief, C. & Geuze, H. J. 1996. B lymphocytes secrete antigen-presenting vesicles. *J. Exp. Med.*, 183, 1161-1172.
- Rim, T. H., Park, H. W., Kim, D. W. & Chung, E. J. 2017. Four-year nationwide incidence of retinitis pigmentosa in South Korea: a population-based retrospective study from 2011 to 2014. *BMJ open*, 7, e015531.
- Rossant, J. 2001. Stem cells from the mammalian blastocyst. *Stem cells*, 19, 477-482.
- Rubin, A. 1995. Complications of local anaesthesia for ophthalmic surgery. *Br. J. Anaesth.*, 75, 93-96.
- Saatci, A. O., Selver, O. B., Seymenoglu, G. & Yaman, A. 2013. Bilateral intravitreal dexamethasone implant for retinitis pigmentosa-related macular edema. *Case reports in ophthalmology*, 4, 53-58.
- Sacchetti, M., Mantelli, F., Merlo, D. & Lambiase, A. 2015. Systematic review of randomized clinical trials on safety and efficacy of pharmacological and nonpharmacological treatments for retinitis pigmentosa. *J. Ophthalmol.*, 2015.
- Sarvar, D. P., Shamsasenjan, K. & Akbarzadehlaleh, P. 2016. Mesenchymal stem cell-derived exosomes: new opportunity in cell-free therapy. *Adv. Pharm. Bull.*, 6, 293.

- Semba, R. & Dagnelie, G. 2003. Are lutein and zeaxanthin conditionally essential nutrients for eye health? *Med. hypotheses*, 61, 465-472.
- Shintani, K., Shechtman, D. L. & Gurwood, A. S. 2009. Review and update: current treatment trends for patients with retinitis pigmentosa. *Optometry-Journal of the American Optometric Association*, 80, 384-401.
- Siqueira, R., Messias, A., Voltarelli, J., Messias, K., Arcieri, R. & Jorge, R. 2013. Resolution of macular oedema associated with retinitis pigmentosa after intravitreal use of autologous BM-derived hematopoietic stem cell transplantation. *Bone Marrow Transplant.*, 48, 612.
- Siqueira, R. C., Messias, A., Messias, K., Arcieri, R. S., Ruiz, M. A., Souza, N. F., Martins, L. C. & Jorge, R. 2015. Quality of life in patients with retinitis pigmentosa submitted to intravitreal use of bone marrow-derived stem cells (Reticell-clinical trial). *Stem Cell Res. Ther.*, 6, 29.
- Sivan, P. P., Syed, S., Mok, P.-L., Higuchi, A., Murugan, K., Alarfaj, A. A., Munusamy, M. A., Awang Hamat, R., Umezawa, A. & Kumar, S. 2016. Stem cell therapy for treatment of ocular disorders. *Stem Cells Int.*, 2016.
- Smirnov, S. V., Harbacheuski, R., Lewis-Antes, A., Zhu, H., Rameshwar, P. & Kotenko, S. V. 2007. Bone-marrow-derived mesenchymal stem cells as a target for cytomegalovirus infection: implications for hematopoiesis, self-renewal and differentiation potential. *Virology*, 360, 6-16.
- Smith, H. B., Chandra, A. & Zambarakji, H. 2013. Grading severity in retinitis pigmentosa using clinical assessment, visual acuity, perimetry and optical coherence tomography. *Int. Ophthalmol.*, 33, 237-244.
- Sokolova, V., Ludwig, A.-K., Hornung, S., Rotan, O., Horn, P. A., Epple, M. & Giebel, B. 2011. Characterisation of exosomes derived from human cells by nanoparticle tracking analysis and scanning electron microscopy. *Colloid Surface B.*, 87, 146-150.
- Sun, L., Xu, R., Sun, X., Duan, Y., Han, Y., Zhao, Y., Qian, H., Zhu, W. & Xu, W. 2016. Safety evaluation of exosomes derived from human umbilical cord mesenchymal stromal cell. *Cytotherapy*, 18, 413-422.
- Szlyk, J. P., Seiple, W., Fishman, G. A., Alexander, K. R., Grover, S. & Mahler, C. L. 2001. Perceived and actual performance of daily tasks: relationship to visual function tests in individuals with retinitis pigmentosa. *Ophthalmology*, 108, 65-75.
- Tang, Y. & Dawn, B. 2015. *Mesenchymal Stem Cell Derived Exosomes: The Potential for Translational Nanomedicine*, Academic Press.
- Tsao, C.-R., Liao, M.-F., Wang, M.-H., Cheng, C.-M. & Chen, C.-H. 2014. Mesenchymal Stem Cell Derived Exosomes: A New Hope for the Treatment of Cardiovascular Disease? *Acta Cardiol.*, 30, 395.
- Vingolo, E. M., Pelaia, P., Forte, R., Rocco, M., Giusti, C. & Rispoli, E. 1998. Does hyperbaric oxygen (HBO) delivery rescue retinal photoreceptors in retinitis pigmentosa? *Doc. Ophthalmol.*, 97, 33-39.
- Vizoso, F. J., Eiro, N., Cid, S., Schneider, J. & Perez-Fernandez, R. 2017. Mesenchymal stem cell secretome: Toward cell-free therapeutic strategies in regenerative medicine. *Int. J. Mol. Sci.*, 18, 1852.

- Weiss, J. N. & Levy, S. 2018. Stem Cell Ophthalmology Treatment Study: bone marrow derived stem cells in the treatment of Retinitis Pigmentosa. *Stem Cell Investig.*, 6.
- Whitcup, S. M., Nussenblatt, R. B., Lightman, S. L. & Hollander, D. A. 2013. Inflammation in retinal disease. *International journal of inflammation*, 2013.
- Wood-Gush, H. 1989. Retinitis pigmentosa research: a review. *J. Royal Soc. Med.*, 82, 355.
- Xin, H., Li, Y., Cui, Y., Yang, J. J., Zhang, Z. G. & Chopp, M. 2013. Systemic administration of exosomes released from mesenchymal stromal cells promote functional recovery and neurovascular plasticity after stroke in rats. *J. Cereb. Blood Flow Metab.*, 33, 1711-1715.
- Yoshida, N., Yasuhiro Ikeda, Shoji Notomi, Keijiro Ishikawa, Yusuke Murakami, T. H., Hiroshi Enaida, & Ishibashi, T. 2013. *Clinical evidence of sustained chronic inflammatory reaction in retinitis pigmentosa*. Kyushu University Hospital.
- Young, B., Eggenberger, E. & Kaufman, D. 2012. Current electrophysiology in ophthalmology: a review. *Current opinion in ophthalmology*, 23, 497-505.
- Zeng, W., Xiao, J., Zheng, G., Xing, F., Tipoe, G. L., Wang, X., He, C., Chen, Z.-Y. & Liu, Y. 2015. Antioxidant treatment enhances human mesenchymal stem cell anti-stress ability and therapeutic efficacy in an acute liver failure model. *Sci. Rep.*, 5, 11100.
- Zhang, B., Wang, M., Gong, A., Zhang, X., Wu, X., Zhu, Y., Shi, H., Wu, L., Zhu, W. & Qian, H. 2015. HucMSC-exosome mediated-Wnt4 signaling is required for cutaneous wound healing. *Stem cells*, 33, 2158-2168.
- Zhang, Y., Chopp, M., Liu, X. S., Katakowski, M., Wang, X., Tian, X., Wu, D. & Zhang, Z. G. 2017. Exosomes derived from mesenchymal stromal cells promote axonal growth of cortical neurons. *Mol. Neurobiol.*, 54, 2659-2673.