

DAFTAR PUSTAKA

- Akbas A, Inanir A, Benli I, Onder Y, Aydogan L, 2014. Evaluation of some antioxidant enzyme activities (SOD and GPX) and their polymorphisms (MnSOD2 Ala9Val, GPX1 Pro198Leu) in fibromyalgia. *Eur Rev Med and Pharmacol Sci* 18:1199-1203
- Alkatheri A, Albekairy A and Mansour M, 2013. Diabetic Retinopathy: Its Progression and the Effective Treatment to Prevent Blindness. *Pharmacologia* 4:138-156
- Akyol O, Yanik M, Elyasa H, 2005. Association between Ala-9Val polymorphism of Mn-SOD gene and schizophrenia. *Progress in Neuro-Psychopharmacology & Biological Psychiatry* 29:123-131
- American Academy of Ophthalmology, 2014-2015. Section 11, Lens and cataract. Basic and Clinical Science course : San Fransisco, pp 5-33
- Appleby PN, Allen NE, and Key TJ, 2011. Diet, vegetarianism, and cataract risk. *Am J Clin Nutr* 93(5):1128-1135
- Bastaki, Maria, Huen, 2006. Genotype-activity relationship for Mn-superoxide dismutase, glutathione peroxidase 1 and catalase in humans. *Pharmacogenetics and Genomics* 16:279-268
- Behar-Cohen F, Baillet G, Ayguavives T, Garcia PO, Krutmann J, Peña-García P, Charlotte reme, Wolffsohn JS, 2014. Ultraviolet damage to the eye revisited: eye- sun protection factor (e-sPF®), a new ultraviolet protection label for eyewear. *Clinical Ophthalmology* 8:87-104

- Behndig A, 2008. Oxidant in Corneal Diseases. In: (Zierhut M, Cadenas E, Rao NA, eds). Free radical in ophthalmic disorders. New York: Informa health care, pp 55-67
- Bova LM, Sweeney MH, Jamie JF, Truscott RJ, 2001. Major Changes in Human Ocular UV Protection with Age. *Invest. Ophthalmol Vis Sci* 42:205-210
- Brennan LA, Kantorow M, 2009. Mitochondrial function and redox control in the aging eye: Role of MsrA and other repair systems in cataract and macular degenerations. *Exp Eye Res* 88(2):195-203
- Celojevic D, Nilsson S, Behndig A, Tasa G, Juronen E, Jan-Olof Karlsson J, et al, 2013. Superoxide Dismutase Gene Polymorphisms in Patients with Age-related Cataract. *Ophthalmic Genetics* 34(3):140-145
- Ceriello A, 2011. Diabetic complications: from oxidative stress to inflammatory cardiovascular disorders. *Medicographia* 33:29-34
- Chong E, Wong T, 2008. Multivitamin Supplements and Cataract Prevention. *Ophthalmology* 115 (4):597-598
- Chung S, Ho E, Lam K, Chung SK, 2003. Contribution of Polyol Pethway to Diabetes-Induced Oxidative Stress. *J Am Soc Nephrol* 14:S233-S236
- Cumurcu BE, Ozyurt H, Ates O, Gul IG, Demir S, Karlıdag R, 2013. Analysis of manganese superoxide dismutase (MnSOD: Ala-9Val) and glutathione peroxidase (GSH-Px: Pro1978 Leu) gene polymorphisms in mood disorders. *Bosn J Basic Med Sci* 13 (2):109-113
- Da Costa L.A, Badawi A, El-Sohemy A, 2012. Nurigenetics and Modulation of Oxidative stress. *Nutr Metab* 60(3):27–36

- Depkes RI, 2005. Keputusan menteri kesehatan Republik Indonesia no1473/Menkes/SK/X/2005 tentang Rencana strategi Nasional Penanggulangan gangguan penglihatan dan kebutaan untuk mencapai vision 2020. Depkes RI. Jakarta
- Depkes RI, 1998. Hasil Survei kesehatan indra penglihatan dan pendengaran tahun 1996. Depkes RI. Jakarta
- Delamere NA, 2009. The Lens. In (Tasman, William; Jaeger, Edward A, eds). Duane's Clinical Ophthalmology, Lippincott Williams&Wilking). Available from: <http://www.oculist.net/downat0502/prof/ebook/duanes/pages/v8/v8c010.ht>
- Drel VR, Xu W, Zbang J, et al., 2009. Poly(ADP-Ribose) Polymerase inhibition Counteracts Cataract Formation and Early Retinal Changes in Streptozotocin-Diabetic Rats. Invest ophthalmol & Vis Sci 50(4):1778-1798
- Dong C, Xuefei Z, Shengzong R, Qian S, Peipei L, Tao H, Hongzhi P, 2013. Serum Antioxidative Enzyme Levels and Oxidative Stress Product in Age-Related Cataract Patients. Oxid Med and Cel Longev May 13:1-7
- Espinoza SE, Guo H, Fedarko N, DeZern A, Fried LP, Xue Q, Leng S, Beamer B, and Walson JD, 2008. Glutathione Peroxidase Enzyme Activity in Aging. J Gerontol and Biol Sci 63(5):505-509
- Garg P, Bundela RK, Lal BB, Misra S, 2014. Chawla S. Clinical profile of age related ocular changes in elderly people attending a tertiary care teaching hospital. J iarm 2:339-347
- Garg R, Verma M, Mathur S, Murthy P, 1996. Blood Lipid Peroxidation Products

- and Antioxidants in Senile Cataract. *Indian J of Clin Biochemistry* 11(2):182-186
- Geling L, Guogui S, Yadi W, Dan W, Wanning H, Jun Z, 2012. Association between manganese superoxide dismutase gene polymorphism and breast cancer risk: A meta-analysis of 17,842 subjects. *Mol Med Rep* 6(4):797-804
- Goyal MM, Vishwajeet P, Mittal R, Sune P, 2010. A Potential correlation between systemic oxidative stress and intracellular ambience of the lens epithelial in patients with cataract. *J of Clin and diagnostic research* 4:2061-2069
- Graw J, 2008. Genetics of crystallins : Cataract and beyond. *Experimental Eye Research* xxx:1-17
- Gupta VB, Rajagopala M, Ravishankar B, 2014. Etiopathogenesis of cataract: An appraisal. *Indian J Ophthalmol* 62 (2):103-110
- Halliwell B and Gutteridge MC, 2004. *Free radicals in biology and medicine*. New York: Oxord University Ppress, pp 880-901
- Hashemi H, KhabazKhub M, Miraftab M, Mohammed K, Fotouhi A, 2011. The association between refractive errors and cataract: the Taheran eye study. *Middle East African J of Ophthalmol* 18:154-158
- Hegde KR, Henein MG, Varma SD, 2003. Establishment of the muose as a model animal for the study of diabetic cataracts. *Ophthalmol Res* 35:12-18
- Higdon J, 2001. The Linus Pauling Institute Micronutrient centre. Available from: <http://lpi.oregonstate.edu/infocenter/minerals/manganese>
- Hippeli S, Schempp H, Elstner EFm, 2008. Oxidative stress and Catarac. In:

- (Zierhut M, Cadenas E, Rao NA, eds). Free radical in ophthalmic disorders. New York: Informa health care, pp 81-106
- Ichimura Y, Habuchi T, Tsuchiya N, Wang L, Oyama C, Sato K, 2004. Increased Risk of Bladder Cancer Associated with a GPX 1 codon 198 variant. *J of Urology* 172:728–732
- Jablonska E, Gromadzinska J, Reszka E, Wasowicz W, Sobala E, Szeszenia-Dabrowska N, Boffetta, 2009. Association between GPx-1 Pro198Leu polymorphism, GPx-1 activity and plasma selenium concentration in humans. *Eur J Nutr*, 48:383–386
- Kanski JJ, 2007. *Clinical Ophthalmology: a systematic approach*, 6thEd. Edinburgh: Elsevier, pp 337-367
- Kanthan GL, Mitchell P, Burlutsky G, Wang JJ, 2010. Alcohol Consumption and the Long-Term Incidence of Cataract and Cataract Surgery: The Blue Mountains Eye Study. *Am J Ophthalmol* 150:434–440
- Katar M, Ozugurlu AF, Ozyurt H and Benli I, 2014. Evaluation of glutathione peroxidase and superoxide dismutase enzyme polymorphisms in celiac disease patients. *Genet Mol Res* 13(1):1030-1037
- Kaur J, Kukreja S, Kaur A, Malhotra N, Kaur R, 2012. The Oxidative Stress in Cataract Patients. *J of Clinical and Diagnostic Research* 6:1629-1632
- Kaur S, Gujral U, and Singh SP, 2014. Role of superoxide dismutase in senile cataract patients. *Int J of Recent Sci Research* 5:669-672
- Kisic B, Miric D, Zoric L and Ilic A, 20012. Role of Lipid Peroxidation in the Pathogenesis of Age-Related Cataract. *InTech*:457-482

(<http://creativecommons.org/licenses/by/3.0>)

Kisic B, Miric D, Zoric L, Ilic A and Dragojevic I, 2012. Antioxidant Capacity of Lenses with Age-Related Cataract. *Oxid Med and Cel Longev* 2012:1-8

Klein BE, Mos S, 1985. Prevalence of cataract in a population based study of person with diabetes mellitus. *Ophthalmology* 92(9):1191-1196

Kowalski M, Bielecka-Kowalska A, Oszejca K, 2010. Manganese superoxide dismutase (MnSOD) gene (Ala-9Val, Ile58Thr) polymorphism in patients with age-related macular degeneration. *Med Sci Monit* 16(4):CR190-196

Kumar P, Kumar M, Reddy G, 2007. Effect of glycation on α -crystallin structure and chaperone-like function. *Biochem J* 408:251-258

Kuszak JR and Costello MJ, 2009. Embryology and anatomy of human lenses. In (Tasman, William; Jaeger, Edward A, eds). *Duane's Clinical Ophthalmology*, Lippincott Williams&Wilking). Available from: <http://www.oculist.net/downat0502/prof/ebook/duanes/pages/v1/v1c071a.html>

Kyselova Z, 2010. Experimental approaches in modelling cataractogenesis: An overview of selenite-induced nuclear cataract in rats. *Interdisc Toxicol* 3(1):3-14

Kyselova Z, 2010. Different experimental approaches in modeling cataractogenesis : An overview of selenite-induce nuclear cataract in rats. *Interdisc Toxicol* 3(1):3-14

Kyung-Sun, Dong H J, Kyungdo, Yong-Gyu P, Man Soo K, Eun C K, 2014. The Ocular Benefits of Estrogen Replacement Therapy: A Population-Based

Study in Postmenopausal Korean Women. PLoS ONE J 9(9):1-6

Li-Quan Zhao, Liang-Mao Li, Huang Zhu, and The Epidemiological Evidence-Based Eye Disease Study Research Group, 2014. The Effect of Multivitamin/Mineral Supplements on Age-Related Cataracts: A Systematic Review and Meta-Analysis. *Nutrients* 6:931-949

Li-na H, Yi-qua L, Qi-yan, Yi-ling L, Shou-zhi H, 2006. The antagonism of cholecystokinin octapeptide-8 to the peroxynitrite oxidation on a diabetic cataractal rat model. *Chinese Medical J* 119(17):1451-1457

Linetsky M, Chemoganskiy VG, Hu F and Ortweh, 2003. Effect of UVA Light on the Activity of Several Aged Human Lens Enzymes. *Invest. Ophthalmol Vis Sci* 44:264-274

Luo J, 2010. Manganese Superoxide Dismutase (MnSOD). Medical Laboratories free radical and radiation biology program. Dissertation, University of Iowa.

Madiyono B, Moeslichan S, Sastroasmoro S, Budiman S, Purwanto, 2011. Perkiraan besar sampel. In:(Sastroasmoro S, Ismael S, eds). *Dasar-dasar Metodologi Penelitian Klinis*. Jakarta: Sagung Seto, pp348-382

Majdi M, Milani BY, Movahedan A, Wasielewski L, and Djalilian AR, 2014. The Role of Ultraviolet Radiation in the Ocular System of Mammals. *Photonics* 1:347-368

Manar A, Abdel-fattah M, Nimmer N, Abdel-rahman S, and Abdeldayem SA, 2012. Association of Alanine-Valine Manganese Superoxide Dismutase Gene Polymorphism and Microheterogeneity Manganese Superoxide Dismutase Activity in Breast Cancer and Benign Breast Tissue. *J Breast*

Cancer 15(2):157–161

Mangino J, 1997. Quality Assurance and Quality control. International Panel on Climate Change (IPPC) 1:6-17

Mamczar E G, Fiolka JZ, Chlubek D, et al., 2009. The Influence of Sodium Fluoride and Caffeine on the Activity of Antioxidative Enzymes and The Concentration of Malondialdehyde in Rat Liver. Research Report Fluoride 42(2):105-109

Maritim A, Sanders R, Watkins J, 2003. Diabetes, Oxidative Stress, and Antioxidants : A Review. Biochem Mol Toxicology J 17(1):24-38

Michael R, Bron J, 2011. The ageing lens and cataract: a model of normal and pathological aging. Phil Trans R Soc 366;1278–1292

Mikhak B, Hunter DJ, Spiegelmen D, Platz EA, Wu K, Erdman W, Giovanuci E, 2008. Manganese superoxide dismutase (MnSOD) gene polymorphism, interactions with carotenoid. Carcinogenesis 29(12):2335–2340

Miric DJ, Kistic BM, Zoric LD, Miric BM, M Mirkovic M and Mitic R, 2014. Influence of cataract maturity on aqueous humor lipid peroxidation markers and antioxidant enzymes. Eye 28:72–77

Moeloe NF, dari Detik Health, 2012. Angka Kebutaan di Indonesia Nomor Dua Sedunia. Available from : <http://health.detik.com/read/>

Moussa S, 2008. Oxidative stress in diabetes mellitus. Romania J Biophys18(3):225-236

Najaf M, Ghasem H, Roustazade A, Farajollah M, 2014. Lack of association between glutathione peroxidase1 (GPx1) activity, Pro198Leu polymorphism

and stenosis of coronary arteries: A population-based prediction. *Meta gene* 2:722-729

Nazıroğlu M, Güler M, Küçükayaz M, Övey IS, Özgül C, 2012. Apple cider vinegar supplementation modulates lipid peroxidation and glutathione peroxidase values in lens of ovariectomized mice. *Cell Membranes and Free Radical Research* 3(3):209-214

Nita M, Grzybowski A, 2016. The Role of the Reactive Oxygen Species and Oxidative Stress in the Pathomechanism of the Age-Related Ocular Diseases and Other Pathologies of the Anterior and Posterior Eye Segments in Adults. *Oxid Med and Cel Longev*. Jan 10:1-23

Oduntan OA, Mashige KP, 2011. A review of the role of oxidative stress in the pathogenesis of eye diseases. *S Afr Optom* 70(4):191-199

Oenzil F, 2010. Raikal bebas, antioksidan dan penuaan. Simposium Radikal bebas dan penyakit degeneratif. Dies Natalis ke 43 Fakultas Kedokteran Universitas Andalas Padang.

Olofsson EM, Marklund SL, BehndigA, 2009. Enhanced Diabetes-Induced Cataract in Copper-Zinc Superoxide Dismutase-Null Mice. *IOVS* 50(6):2913-2918

Olofsson E, 2009. Superoxide Dismutase 1 and cataract. Dissertations, Umea University, Sweden.

Perry JP, Shin DS, Getzoff ED, Tainer JA, 2010. The structural biochemistry of the superoxide dismutase. *Biochimica et Biophysica Acta* 1804:245-262

Perdami Riau, 2012. Catatan bakti sosial operasi katarak

- Pokhrel AK, Bates MN, Shrestha SP, Bailey IL, DiMartino RB, and Smith KR, 2013. Biomass Stoves and Lens Opacity and Cataract in Nepalese Women. *Optom and Vis Sci* 90 (3):257-268
- Pollreis A, Erfurth US, 2010. Diabetic cataract-Pathogenesis, Epidemiology and treatment. *Ophthalmology* 2010:1-8
- Kronschlager MB, 2014. Prevention of Experimental Cataract Induced by UVR. Dissertations, Uppsala University, Sweden
- Rahim A, Iqbal K, 2011. To assess the levels of zinc in serum and changes in the lens of diabetic and senile cataract patients. *J Pak Med Assoc* 61:853-855
- Rastogi SC, Rastogi P, Mendiratt N, 2008. *Bioinformatics Methods And Applications: Genomics Proteomics And Drug Discovery*. New Delhi : PHI Learning Pvt. Available from: <http://books.google.co.id/books?id=YP1rEFxFgDcC&pg=PA23&dq=central+dogma&hl=id&sa=X&ei=oMaGU>
- Robert CM, Jon P, Allan RC, et al., 2004. Manganese superoxide dismutase Ala-9Val polymorphism and risk of breast cancer in a population-based case-control study of African Americans and whites. *Breast Cancer Res* 6:264-270
- Roberts JE, 2011. Ultraviolet Radiation as a Risk Factor for Cataract and Macular Degeneration. *Eye & Contact Lens* 37:246-249
- Saygili E I, Aksoy S N, Gurler B, Aksoy A, Erel O, Ozaslan M, 2010. Oxidant/Antioxidant Status of Patients With Diabetic and Senile Cataract. *Biotechnol & Biotechnol Eq* 24(1):1648-1652

Sekretariat Kabinet Indonesia, 2012. Katarak Penyebab Utama Kebutaan di Indonesia. Available from : <http://setkab.go.id/berita-6031>

Škiljic D, 2014. The role of estrogen and superoxide dismutase in cataractogenesis. Thesis for the degree of Doctor of Medicine. University of Gothenburg, Sweden.

Sulochana KN, Punitham R, Ramakrishnan S, 2002. Effect of cigarette smoking on cataract : Antioxidant enzymes and constituent minerals in the blood of human. *Indian Journal of pharmacology* 34:428-431

Suzen HS, Gucyener E, Sakalli O, Uckun Z, Kose G, Ustel D, 2011. CAT C-262T and GPX1 Pro198Leu polymorphisms in a Turkish population. *Mol Biol Rep* 37(1):87-92

Tana L, Mihardja L, Rif'ati L, 2007. Merokok dan usia sebagai faktor risiko katarak pada pekerja berusia ≥ 30 tahun di bidang pertanian. *Universa Medicina* 26:120-128

Tanchangya J, Geater AF, 2012. Use Of traditional cooking fuels and risk of young adult cataract in rural Bangladesh: a hospital based case control study. *BMJ Ophthalmology* 11(16):1-13

Terada T, 2005. Role of Glutathione S-Transferases in Lens under Oxidative Stress. *J of Health Sci* 51(3):263-271

Tyler HT, Min-hyung K, Woon Cho K, Tae-Im K, and Eung Kweon K, 2014. Cataract subtype risk factors identified from the Korea National Health and Nutrition Examination survey 2008–2010. *BMC Ophthalmology* 14:1-15

Uppu SD, Gupta MM, 2015. Pro-Oxidant and anti-oxidant status in senile

- cataract. *Int J of Med and applied sci* 4:171-174
- Van Landeghem GF, Tabatabaie P, Kucˆınskas V, Saha N, Beckman G,1999. Ethnic Variation in the Mitochondrial Targeting Sequence Polymorphism of MnSOD. *Hum Hered* 49:190–193
- Varma SD, Kovtun S, Hegde KR, 2011. Role of UV Irradiation and Oxidative Stress in Cataract Formation. Medical Prevention by Nutritional Antioxidants and Metabolic Agonists. *Eye Contact Lens* 37(4):233-245
- Varma SD, Hegde KR, Kovtun S, 2010. Oxidative stress in lens in vivo: Inhibitory effect of caffeine. A preliminary report. *Mol Vis*16:501-505
- Vinson J A, 2006. Oxidative Stress in Cataract. *Pathophysiology* 13:151-162
- Wang A M, Ma C, Hie Z H, Shen F, 2000. Use of Carnosine as a Natural Anti-Senescence Drug for Human Beings. *Biochemistry(Moscow)* 65(7):869-871
- Wang S, Wang F, Dai J, Peng Y, Gou X, Shen H, 2009. Association between manganese superoxide dismutase (MnSOD) Val-9Ala polymorphism and cancer risk - A meta-analysis. *Eur J Cancer* 45(16):2874-81
- WHO, 2014. Visual impairment and blindness. Available from: <http://www.who.int/mediacentre/factsheets/fs282/en/>
- WHO, 2012. WHO country cooperation strategy 2007-2012:Indonesia. Available from : <http://www.who.int/blindness/en/>
- Williams D L, 2006. Oxidation, antioxidants and cataract formation: a literature review. *Veterinary Ophthalmology* 9(5):292-298
- Yerizel E, 2010. Pengaruh peningkatan kadar glukosa darah terhadap beberapa faktor aterogenik secara biomolekuler pada penderita Diabetes mellitus tipe

2. Disertasi, Universitas Andalas, Padang

Yi Z, Lau Z, DongLin S, ZhiSheng L, Lin W, Ping L, 2011. Genetic polymorphism of superoxide dismutase, catalase, and glutathione peroxidase in age-related cataract. *Mol Vis* 17:2325-2332

Zafar M, Shaf K, 2014. Prevalence of Cataract among Smokers of 40-60 Years of Age Groups in Karachi, Pakistan. *Surgery Curr Res* 4:1-4

Zheikova TV, Golubenko MV, Buikin SV, Botkina OY, Makeeva OA, Lezhnev AA, 2012. Glutathione peroxidase 1 (GPx-1) single nucleotide polymorphism Pro198→Leu: Association with life span and coronary artery disease. *Molecular Biology* 46(3):433-437.

Zhang HJ, 2014. MnSOD: A Special Enzyme In A Special Place. Department of Exercise Science and Free Radical and Radiation Biology Program, Department of Radiation Oncology, The University of Iowa, Iowa City, USA:1-15

