

Daftar Pustaka

- Abo, M., Tono, T., Lu, C.L., Chen, D.Z., 2000. Effects of Caffeine on Gastrointestinal Myoelectric Activity and Colonic Spike Activity in Dogs. *Scand J Gastroenterol.* 35:368-74
- Abunasef, S.K., Amin, H.A., Abdel-Hamid, G.A., 2014. A Histological and Immunohistochemical Study of Beta Cells in Streptozotocin Diabetic Rats Treated with Caffeine. *Folia Histochem Cytobiol.* 52(1):42-50
- Addicott, M.A., 2014. Caffeine Use Disorder : A Review of The Evidence and Future Implications. *Curr Addict Rep:*186-92
- Ahmadvand, H., Jamor, P., 2017. Effects of Alpha Lipoic Acid on Level of NO and MPO Activity in Diabetic Rats. *Ann Res Antioxid.* 2(2):1-4
- Aitken, R.J., Roman, S.D., 2008. Antioxidant Systems and Oxidative Stress in Testes. *Oxid Med Cell Longev.* 1(1):15-24
- Aldamash, B.A., El-Nagar, D.M., Ibrahim, K.E., 2016. Attenuation of Hepatotoxicity and Oxidative Stress in Diabetes STZ-induced Type 1 by Biotin Swiss Albino Mice. *Saudi J Biol Sci.* 23:311-7
- Ali, Y.F., Desouky, O.S., Selim, N.S., Ereiba, K.M. 2015. Assessment of The Role of α -Lipoic Acid Against The Oxidative Stress of Induced Iron Overload. *J Radiat Res Appl Sci.* 8:26-35
- Almeida, D.A.T., Braga, C.P., Novelli, E.L.B., Fernandes, A.A.H., 2012. Evaluation of Lipid Profile and Oxidative Stress in STZ-Induced Rats Treated with Antioxidant Vitamin. *Int J.* 55(4):527-36
- Arambasic, J., Mihailovic, M., Uskokovic, A., Dinic, S., Grdovic, N., Markovic, J *et al.*, 2013. Alpha-lipoic Acid Upregulates Antioxidant Enzyme Gene Expression and Enzymatic Diabetic Rat Kidneys Through an O-GlcNAc dependent Mechanism. *Fur J Nutr.* 52(5):1461-73
- Assaei, R., Makarram, P., Dastghaib, S., Darbandi, S., Darbandi, M., Zai, F *et al.*, 2016. Hypoglycemic Effect of Aquatic Extract of Stevia in Pancreas Diabetes Rats : PPAR γ - dependent Regulation or Antioxidant Potential. *Avicenna J Med Biotech.* 8:65-74
- Ayala, A., Munoz, M.F., Arguelles, S., 2014. Lipid Peroxidation : Production, Metabolism, and Signaling Mechanisms of Malondialdehyde and 4 Hydroxy-2- Nonenal. *Oxidative Med Cell Longevity.*14:1-31

- Badescu SV., Tataru CP., Kobylinska L., Georgescu EL., Zahiu DM., Zagrean AM *et al.* 2016. Effects of Caffeine on Locomotor Activity in Streptozotocin Induced Diabetic Rats. *J Med Life.* 9:275-79
- Bhattacharjee, A., Prasad, S.K., Pal, S., Maji, B., Syamal, A.K., Banerje, A., Mukherje, S., 2015. Protective Efficacy of Folic Acid and Vitamin B12 Against Nicotine- Induced Toxicity in Pancreatic Islets of Rat. *J Toxicol.* 8(12):103-11
- Biewenga, G., Haenen, G.R.M.M., Bast, A., 1996. The Pharmacology of the Antioxidant Lipoic Acid. *Gen Pharmac.* 29(3):315-31
- Birben, E., Sahiner, U.M., Sackesen Cansin., Erzurum, S., Kalayci, O., 2012. Oxidative Stress Antioxidant Defense. *World Allergy Organ J.* 5(1):9-19
- Budin, S.B., Kee, K.P., Eng, M.Y.S., Osman, K., Bakar, M.A., Mohamed, J., 2007. Alpha Lipoic Acid Prevent Pancreatic Islet Cells Damage and Dyslipidemia in Streptozotocin-induced Diabetic Rats. *Malay J Med Sci.* 12(2):47-53
- Bukan, N., Sancak, B., Yavuz, O., Koca, C., Tutkum, F., Ozcelikay, A.T., Altan, N., 2003. Lipid Peroxidation and Scavenging Enzyme Levels in the Liver of Streptozotocin-induced Diabetic Rats. *Indian J Biochem Bioph:*447-50
- Campbell, S.C., Aldibbiat, A., Marriott, C.E., Landy, C., Ali, T., Ferris, W.F *et al.*, 2008. Selenium Stimulates Pancreatic Beta-Cell Gene Expression and Enhances Islet Function. *FEBS Lett.* 582(15):2333-7
- Casas-Grajales, S., Muriel, P., 2015. Antioxidants in Liver Health. *World J Gastrointest Pharmacol Ther.* 6(3):59-72
- Cichoz-Lach, H., Michala, A., 2014. Oxidative Stress as a Crucial Factor in Liver Disease. *W J Gastroenterol.* 20(25) : 8082-91
- Cox, R.A, García-Palmieri, M.R., 1990. Cholesterol, Triglycerides, and Associated Lipoproteins. In: Walker HK, Hall WD, Hurst JW (Ed.) *:. Clinical Methods: The History, Physical, and Laboratory Examinations.* 3rd ed, pp : 154-60. Boston: Butterworths. Available from : <https://www.ncbi.nlm.nih.gov/books/NBK351/>
- Deeds, M.C., Anderson, J.M., Amstrong, A.S., Gastineau, D.A., Hiddinga, H.J., Jahangir, A *et al.* 2011. Single Dose Streptozotocin Induced Diabetes: Considerations for Study Design in Islet Transplantation Models. *Lab Anim.* 45(3):131-40

- Demirtas, C., Ofluoglu, E., Hussein, A., Pasaoglu, H., 2012. Effects of Caffeine on Oxidant-Antioxidant Mechanisms in Rat Liver. *Gazi Med J.* 23:13-8
- Dianzani, MU., Muzio, G., Biocca, M.E., Canuto, R.A., 1991. Lipid Peroxidation in Fatty Liver Induced by Caffeine in Rats. *Int J Tissue React.* 13(2):79-85
- Dincer, Y., Telci, A., Kayah, R., Yilmaz, I.A., Akcay, T., 2002. Effect of α -Lipoic Acid on Lipid Peroxidation and Anti-Oxidant Enzyme Activities in Diabetic Rats. *Clin Exp Pharmacol Physiol.* 29:281-4
- Eze, E.D., Atsukwei, D., Adams, M.D., Tende, J.A., Malgwi, I.S., Onuoha, T.N., 2015. Effects of Alpha Lipoic Acid on Blood Glucose, Body Weight and Haematological Profile of Streptozotocin-Induced Hyperglycemia in Wistar Rats. *Eur J Res Med Sci.* 3(2):2056-600
- Feinglos, M.N., & Bethel, M.A. (Eds.), 2008. Type 2 Diabetes Mellitus : An Evidence Based To Practical Management. Durham, Springer
- Gadjosik, A., Gadjosikova, A., Stefek, M., Navarova, J., Hozova, R. 1999. Streptozotocin-Induced Experimental Diabetes in Male Wistar Rats. *Gen Physiol Biophys.* 18:54-62
- Gawlik, K., Naskalski, J.W., Fedak, D., Pawlica-Gosiewska, D., Grudzien, U., Dumnicka, P *et al.*, 2016. Markers of Antioxidant Defense in Patients with Type 2 Diabetes. *Oxid Med Cell Longev.* 16:1-6
- Giacco, F, Brownie, M., 2010. Oxidative Stress and Diabetic Complications. *Circ Res.* 29:1058 – 70
- Giugliano, D., Cariello, A., Esposito, K., 2008. Glucose Metabolism and Hyperglycemia. *Am J Clin Nutr. Suppl* 87:217-22
- Golbidi, S., Badran, M., Laher, I., 2011. Diabetes and Alpha Lipoic Acid. *Front Pharmacol.* 2:69
- Gwarzo, M.Y., Ahmadu, J.H., Ahmad, M.B., Dikko, A.U.A., 2014. Serum Glucose and Malondialdehyde Levels in Alloxan Induced Diabetes Rats Supplemented with Methanolic Extract of *Tacazzea Apiculata*. *J Biomed Sci.* 10:236-42
- Holt, R.I.G., Cockram, C., Flyvbjerg, A., Goldstein, B.J. (Eds.), 2010. Textbook of Diabetes 4th ed. Singapore, Willey-Blackwell
- Hontoria, P.L., Matute-Peres, P., Galilea-Fernandez, M., Barber, A., Martinez, J.A., Aliaga-Moreno, M.J., 2009. Lipoic Acid Prevents Body Weight Gain

Induced by A High Fat Diet in Rats: Effects on Intestinal Sugar Transport. *J Physiol Biochem.* 65(1):43-50

Hussein, S.A., Hassanin, M.R., Amira, R.E.B., 2012. Biochemical Effect of Alha Lipic Acid on Lipid Peroxidation and Status of Antioxidant Enzyme in Streptozotocin Induced Diabetes in Rats. *BVMJ.* 23(1):34-47

Iglesias, J., Lamontagne, J., Erb, H., Gezzar, S., Zhao, S., Joly, E *et al.*, 2016. Simplified Assays of Lipolysis Enzymes for Drug Discovery and Specificity Assessment of Known Inhibitors. *J Lipid Res.* 57(1):131-41

International Labour Organization (ILO)., 1998. Caffeine 1,3,7-Trimethylxanthine 3,7-Dihydro-1,3,7-trimethyl-1H-purine-2,6-dioneMethyltheobromine Methyltheophylline [Cited 26 Mei 2018]: [1 screen]. Available from : http://www.ilo.org/dyn/icsc/showcard.display?p_version=2&p_card_id=405

International Diabetes Federation (IDF)., 2012. IDF Diabetes Atlas Update [serial online] [Cited 02 Februari 2017] : [160 Screens]. Available from : <http://www.idf.org/diabetesatlas/previouseditions/>

Islam, M.T., 2009. Antioxidant Activities of Dithiol Alpha-Lipoic Acid. *B J Med Sci.* 8(3):1-6

Jae-Jong, L., Ho-Young, Y., Jae-Won, Y., Jun-Seop, S., Jai-Hyun, K., Chan-Wha,K.,2003. Characterization of Streptozotocin-induced Diabetic Rats and Pharmacodynamics of Insulin Formulations. *Biosci. Biotechnol. Biochem.* 67(11):1347-6947

Janero, D.R., 2002. Malondialdehyde and Thiobarbituric Acid-Reactivity as Diagnostic Indices of Lipid Peroxidation and Peroxidative Tissue Injury. *Free Rad Biol.* 9:515-40

Junod, A., Stauffacher, W., Renold, A.E., 1969. Diabetogenic Action of Streptozotocin : Relationship of Dose to Metabolic Response. *J Clin Inves.* 48(11):2129-39

Kagami, K., Morita, H., Onda, K., Hirano, T., Oka, K., 2008. Protective Effect Of Caffeine on Streptozotocin-induced Beta-cell damage in Rats. *J Pharm Pharmacol.* 60(9):1161-65

Kan, E., Alici, O., Kan, E.K., Ayar, A., 2016. Effects of Alpha Lipoic Acid on Retinal Ganglion Cells, Retinal Thickness, and VEGF Production in An Experimental Model of Diabetes. *Int Ophtalmol.* 37(6):1269-78

- Kaneto, H., Katakami, N., Matsuhisa, M., Matsuoka, Taka-aki., 2010. Role of Reactive Oxygen Species in the Progression of Type 2 Diabetes and Atherosclerosis. *Mediators Inflamm.* 10:1-11
- Kawano, J., 2009. The Role of Adiponectin In Obesity, Diabetes, and Cardiovascular Disease. *J Cardiometab Syndr.* 4(1):44-9
- Kementerian Kesehatan Republik Indonesia (Kemkes RI). 2013. Riset Kesehatan Dasar [Cited : 2017 Februari 24] : [306 screens]. Available from : <http://www.depkes.go.id/resources/download/general/Hasil%20Risikesda%2013>
- Khansari, N., Shakiba, Y., Mahmoudi, M., 2009. Chronic Inflammation and Oxidative Stress as a Major Cause of Age-Related Diseases. *Recent Pat Inflamm Allergy Drug Discov.* 3(1):73-80
- King, A.J.F., 2012. The Use of Animal Models in Diabetes Research. *British J Pharm.* 166:877-94
- Konsue, A., Picheansoonthon, C., Talubmook, C., 2017. Fasting Blood Glucose Levels and Hematological Values in Normal and Streptozotocin-induced Diabetic Rats of *Mimosa pudica* L. Extracts. *Pharmacogn J.* 9(3):315-22
- Kumawat, M., Sharma, T.K., Singh, I., Singh, N., Ghalaut, V.S., Vardey, S.K *et al.* (2013). Antioxidant Enzymes and Lipid Peroxidation in Type 2 Diabetes Mellitus Patients with and without Nephropathy. *N Am J Med Sci.* 5(3):213-19
- Kusminski, C.M., Mc Ternan, P.G., Kumar, S. 2005. Role of Resistin In Obesity, Insulin Resistance and Type II Diabetes. *Clin Sci.* 109:243-56
- Lee, K.H., Human, G.P., Fourie, J.J., Louw, W., Larson, C.O., Joubert., 2009. Medical Students' use of Caffeine for 'Academic Purposes' and Their Knowledge of Its Benefits, Side-Effects and Withdrawal. *SA Farm Pract.* 15(4):322-27
- Li, Chun-Jun., Lin Lv, Li, H., Yu, De-min., 2012. Cardiac Fibrosis and Dysfunction In Experimental Diabetic cardiomyopathy are Ameliorated by Alpha-Lipoic Acid. *Cardiovasc Diabetology.* 11:73
- Lin, Y., Sun, Z., 2010. Current Views on Type 2 Diabetes. *J Endocrinol,* 204 (1) : 1-11
- Lipchock, S.V., Spielman, A.I., Menella, JA., Mansfield, C.J., Hwang, L.D., Douglas, J.E *et al.*, 2017. Caffeine Bitterness is Related to Daily Caffeine

Intake and Bitter Receptor mRNA Abundance in Human Taste Tissue.
Percept. 46(3-4):245-56

Liszt, K.I., Ley, J.P., Lieder, B., Behrens, M., Stoger, V., Reiner, A *et al.*, 2017.
Caffeine Induces Gastric Acid Secretion via Bitter Taste Signaling in
Gastric Parietal Cells. *Proc Natl Acad Sci USA.* 144(30) : 6260-69

Lubos, E., Loscalzo, J., Handy, D.E. 2010. Glutathione Peroxidase-1 in Health a
Disease From Molecular Mechanisms to Therapeutic Opportunities.
Antioxid Redox Signal. 15(7):1957 – 97

Lucchesi, A.N., Tavares de Freitas, N., Cassetari, L.L., Marques, S.F.G., Spadella.
2013. Diabetes Mellitus Triggers Oxidative Stress In the Liver of Alloxan
treated Rats : Mechanism for Diabetic Chronic Liver Disease, *Act
Cirurgica Brasileira.* 28:504

Maritim, A.C., Sanders, R.A., Watkins, J.B., 2002. Diabetes, Oxidative Stress,
and Antioxidants: A Review. *J Biochem Mol Toxicol.* 17:24-38

Maritim, A.C., Sanders, R.A., Watkins, J. B., 2003. Effects of α -Lipoic Acid on
Biomarkers of Oxidative Stress In Streptozotocin – Induced Diabetic Rats.
J Nutritional Biochem. 14 (3):288-94

Marques, C., Meireles, M., Noberto, S., Leite, J., Freitas, J *et al.*, 2016. High-fat
Diet Induced Obesity Rat Model : A Comparison between Wistar and
Sprague Dawley Rat. *Adipocyte.* 5(1):11-21

Martinez – Lopez, S., Sarria, B., Baeza, G., Mateos, R., Bravo – Clemente, L.
2011. Pharmacokinetics of Caffeine and Its Metabolites In Plasma
and Urine after Consuming a Soluble Green / Roasted Coffee Blend
By Healthy Subjects. *Food Res Int .* 64:125-33

Martyn, J.A.J., Kaneki, M.C., Yasuhara, S., 2008. Obesity-Induced Insulin
Resistance and Hyperglycemia : Etiological Factors and Molecular
Mechanisms. *Anesthesiol.* 109(1):137-48

Matough, F.A., Budin, S.B., Hamid, Z.A., Alwahaibi, N., Mohamed, J., 2011. The
Role of Oxidative Stress and Antioxidants in Diabetic Complications.
SQU Med J. 12(1):5-18

Mescher, A.L., 2013. Junqueira’s Basic Histology : Text and Atlas. 13th ed. New
York, McGraw-Hill Education

Mizuno, T., Matsui, H., Imamura., Numaguchi, Y., Sakai, K., Murohara, T.,
Okumura, K., 2004. Insulin Resistance Increases Circulating

- Malondialdehyde-modified LDL and impairs endothelial function in healthy young men. *Int J Cardiol.* 97(3):455-61
- Moller, D.E., 2013. Potential Role of TNF- α in The Pathogenesis of Insulin Resistance and Type 2 Diabetes. *Trends Endocrinol Metab.* 11(6):212-7
- Monroy, M.L.L.V., Mejia, C.F., 2011. Beta-Cell Function and Failure in Type 1 Diabetes. [Cited : 06 May 2017 : [25 Screens] [Available from: <https://www.intechopen.com/books/type-1-diabetes-pathogenesis-genetics-and-immunotherapy/beta-cell-function-and-failure-in-type-1-diabetes>]
- Mukhopadhyay, S., Mondal, A., Poddar, M.K., 2003. Chronic Administration of Caffeine: Effect on the Activities of Hepatic Antioxidant Enzymes of Ehrlich Ascites Tumor-bearing Mice. *Indian J Exp Biol.* 41(4):283-9
- Naido, P., Islam, S., 2014. Development of an Alternative Non-obese Non-genetic Rat Model of Type 2 Diabetes using Caffeine and Streptozotocin. *Pharmacol Rep.* 66(4):585-93
- Nelson, D.L., Cox, M.M., 2004. Lehninger Principles of Biochemistry. 4th ed. New York. W.H. Freeman
- Oryza, 2004. Alpha Lipoic Acid : Ingredient for Weight Loss, Beauty and Anti Oxidative Product. [Cited : 08 May 2018 : 33 Screens][Available from : http://www.oryza.co.jp/html/english/pdf/pdf2/ALA%20_2.0_.pdf]
- Oyenihi, A.B., Chegou, N.N., Oguntibeju, O.O., Masola. 2017. Centella Asiatica Enhances Hepatic Antioxidant Status and Regulates Hepatic Inflammatory Cytokines In Type 2 Diabetes Rats. *Pharm Bio.* 55(1):1671-8
- Oyenihi, O.R., Brooks, N.L., Oguntibeju, O.O., 2015. Effects of Kolaviron on Hepatic Oxidative Stress in Streptozotocin Induced Diabetes. BMC Complementary and Alternative Medicine. *Complementary Altern Med.* 15:236
- Ozmen, O., Topsakal, S., Haligur, M., Aydogan, A., Dincoglu, D., 2016. Effects of Caffeine and Lycopene in Experimentally Induced Diabetes Mellitus. *Pancreas.* 45(4):579-83
- Packer, L., Kraemer, K., Rimbach, G., 2001. Molecular Aspects of Lipoic Acid in the Prevention of Diabetes Complication. *Nutr.* 17(10):893
- Papatheodorou, K., Papanas, N., Banach, M., Papazoglou, D., Edmonds, M., 2016. Complications of Diabetes 2016. *J Diabetes Res.* 16:1-3

- Panagiotakos, D.B., Lionis, C., Zeimbekis., Makri, K., Bountziouka, V., Economou, M., Vlachou, I et al. 2007. Long-Term, Moderate Coffee Consumption is Associated With Lower Prevalence of Diabetes Mellitus Among Elderly Non-Tea Drinkers from Mediterranean Islands (MEDIS Study). *Rev Diabetic Stud.* 4(2):105-12
- Pasaoglu, H., Demir, F.E.O, Demirtas, C.Y., Hussein, A., Pasaoglu, O, T., 2011. The Effect of Caffeine on Oxidative Stress In Liver and Heart Tissues of Rats. *Turk J med Sci.* 41(4):665-71
- Porasuphatana, S., Sudde, S., Nartnampong, A., Konsil, J., Harnwong, B., Santaweasuk, A. 2012. Glycemic and Oxidative Status of Patients With Type 2 Diabetes Mellitus Following Oral Administration Of Alpha Lipoic Acid : a randomized double- blinded placebo-controlled study. *Asia Pac J Clin Nutr.* 21:12-21
- Pournaghi, P., Sadrkhanlou, Rajab-Ali., Hasanzadeh, S., Foroughi, A., 2012. An Investigation on Body Weights, Blood Glucose Levels and Pituitary Gonadal Axis Hormones in Diabetic and Metformin-Treated Diabetic Female Rats. *Veterin Res Forum.* 3(2):79-84
- Preedy., V.R (Ed)., 2012. Caffeine Chemistry, Analysis, Function and Effects. London, RSC Publishing
- Qinna, N.A., Badwan, A.A., 2015. Impact of Streptozotocin on Altering Normal Glucose Homeostatis During Insulin Testing in Diabetic Rats compared to Normoglycemic Rats. *Drug Des Devel Ther.* 9:2515-25
- Qujeg, D., Aliakbarpour, H.R., Kalavi, K., 2004. Relationship Between Malondialdehyde level and Glutathione Peroxidase Activity in Diabetic Rats. *Clin Chim Acta.* 340 (1-2):79-83
- Rahal, A., Kumar, A., Singh, V., Yadav, B., Tiwari, R., Chakraborty, S., Dhama, K., 2014. Oxidative Stress, Prooxidants, and Antioxidants : The Interplay. *Biomed Res Int.* 14 (14):1-19
- Rahimifard, M., Baeeri, M., Abdollahi, M. 2014. Multiple Protective Mechanisms Of Alpha Lipoic Acid In Oxidative Apoptosis and Inflammation Against Hydrogen Peroxide Induced Toxicity In Human Lymphocytes. *Mol Cell Biochem .* 403 (1-2):179-86
- Ramanathan, M., Jaiswal, A.K., Bhattacharya. 1999. Superoxide Dismutase, Catalase, and Glutathione Peroxidase Activities in the Brain of Streptozotocin Induced Diabetic Rats. *Indian J Exp Biol.* 37:182-3

- Raza, H., John, A., Howarth, F.C. 2015. Increased Oxidative Stress and Mitochondrial Dysfunction in Zucker Diabetic Rat Liver and Brain. *Cell Physiol Biochem.* 35(3):1241-51
- Reichkendler, M.H., Auerbach, P., Rosenkilde, M., Christensen, A.N, Holm, S., Petersen *et al.*, 2013. Exercise Training Favors Increased Insulin stimulated Glucose Uptake in Skeletal Muscle in Contrast to Adipose Tissue : a randomized study using FDG PET Imaging. *Am J Physiol Endocrinol Metab.* 305:496-506
- Riaz, S., 2009. Obesity as a Risk Factor for Diabetes Mellitus in the Local Population of Pakistan. *Univ J Clin Med.* 2(3):58-64
- Rines, A.K., Sharabi, K., Tavares, C.D.J., Puigserver, P., 2016. Targeting Hepatic Glucose Output in the Treatment of Type 2 Diabetes. *Nat Rev Drug Discov.* 15(11):786-804
- Robertson, R.P., Harmon, J.S., 2007. Pancreatic Islet β -Cell and Oxidative Stress: The Importance of Glutathione Peroxidase. *FEBS Lett.* 581(19):3743-48
- Sadi, G., Erylmaz, N., Tutuncuoglu, E., Cingir, S., Guray, T., 2012. Changes in Expression Profiles of Antioxidant Enzymes in Diabetic Rat Kidney. *Diabetes Metab Res Rev.* 28:228-35
- Saladin, K.S., 2010. Anatomy and Physiology : The Unity of Form and Function. 5th ed. New York, Mc Graw- Hill
- Saleem, A.A., 2014. Effect of Streptozotocin and Alloxan Induced Hyperglycemia on the First Anagen Cycle in Skin of Mice, *Mus musculus*. *Int J Adv Res.* 2(5):1-15
- Sayeed, M.A., Khan, A.K.A., Mahtab, H., Ahsan, K.A., Banu, A., Khanam, P.A., Ahren, B. 2003. Leptin is Reduced In Lean Subjects With Type 2 Diabetes In Bangladesh. *Diabetes Care.* 26(2):545-50
- Scheen., A.J., 2003. Patophysiology Of Type 2 Diabetes. *Acta Clinica Belgia :* 58(6):335-41
- Schieber, M., Chandel, N.S., 2014. ROS Function in Redox Signaling and Oxidative Stress. *Current Biol.* 24(10):453-62
- Sembulingam, K & P., 2012. Essentials of Medical Physiology. 6th ed. India, Jayphe Brothers Medical

- Shay, K.P., Moreau, R.F., Smith, E.J., Smith, R.A., Hagen, T.M., 2009. Alpha Lipoic Acid as a Dietary Supplement : Molecular Mechanisms and Therapeutic Potential. *Biochim Biophys Acta*. 1790(10):1149-60
- Sherif., Misih, A., Bloomston, M. 2010. Liver Anatomy. *Surg Clin North Am*. 90(4):643–53
- Sherwood, L., 2014. Human Physiology : From Cells to Systems. 9th ed. Boston, Cengage Learning
- Shewita, S.A., Mashaly, S., Newairy, A.A., Abdou, H.M., Eweda, S.M., 2016. Changes in Oxidative Stress and Antioxidant Enzyme Activities in Streptozotocin-Induced Diabetes Mellitus in Rats: Role of *Alhagi maurorum* Extracts. *Oxid Med Cell Longev*. 16:1-8
- Sindhu, R.K., Koo,Ja-Ryung., Roberts, C.K., Vaziri N.D., 2004. Dysregulation of Hepatic Superoxide Dismutase, Catalase and Glutathione Peroxidase in Diabetes: Tesponse to Insulin and Antioxidant Theraphies. *Clin. Exp Hypertension*. 26(1):45-53
- Sobel, B.E., Schneider, D.J., 2002. Medical Management of Diabete and Heart Disease. New York, Markel Dekke
- Soll, A.H., Walsh, J.H., 1979. Regulation of Gastric Acid Secretion. *Ann Rev Physiol*. 41:35-53
- Sool, Y., Sung, M.J., Lim, H.S., Jun, Jin-Su., Jeong, Yong-Genu., Kim., Hyun-Ok *et al.*, 2011. Dietary Alpha Lipoic Acid Supplementation Prevents Synovial Inflammation and Bone Destruction In Collagen-Induced Mice. *Rheumatol Int*. 31(12):1583-90
- Stankovic, M.N., Mladenovic, D., Ninkovic, M., Duricic, I., Sobajic, S., Jorgacevic, B *et al.*, 2014. The Effects of α -Lipoic Acid on Liver Oxidative Stress and Free Fatty Acid Composition in Methionine-Choline Deficient Diet-Induced NAFLD. *J Med Food*. 17(2):254-61
- Stefanello, N., Schmatz, R., Pereira, L.B., Cardoso, A.M., Passamonti, S., Spanavello, R.M *et al.*, 2016. Effect of Chloregenic Acid, Caffeine and Coffee on Components of Purinergic System of STZ-Induced Diabetic Rats. *J Nutr Biochem*. 38(16):145-53
- Strachan, M.W.J & Frier, B.M., 2013. Insulin Therapy : Pocket Guide. London, Springer-Verlag
- Swinnen, S.G., Hoekstra, J.B., DeVries, J.H., 2009. Insulin Therapy For Type 2 Diabetes. *Diabetes Care*. 32(2 Suppl):253-9

- Szkudelski, T., 2001. The Mechanism of Alloxan and Streptozotocin Action in B Cells of the Rat Pancreas. *Physiol Res.* 50:536-46
- Taniguchi, N., Higashi, T., Sakamoto, Y., Meister, A. (Eds)., 1989. Glutathione Centennial : Molecular Perspectives and Clinical Implications. San Diego, Harcourt Brace Javanovich
- Thomas, N., Kapoor, N., Velavan, J., Vasan, S.K. (Eds)., 2016. Physiology : A Practical Guide To Diabetes Mellitus. 7th ed. New Delhi. Jaypee Brothers Medical
- Topsakal, S., Ozmen, O., Cankara, F.N., Yesilot, S., Bayram, D., Nilufer, G. O *et al.*, 2016. Alpha Lipoic Acid Attenuates High Fructose Induced Pancreas Toxicity. *Pancreatol.* 16 (3) :347-52
- Torres, M.D., Canal, J.R., Perez, C., 1999. Oxidative Stress In Normal and Diabetic Rats. *Physiol Res.* 48:203-8
- Tovoic, S.P., Kost, C.K., Jackson, E.K., Bastacky, S.I., 2002. Long-term Caffeine Consumption Exacerbates Renal Failure in Obese, Diabetic, ZSFI(Fa-Fa^{CP}) Rats. *Kidney Int.* 61(4):1433-44
- Tsai, C.E., Hirsch, I.B., Brunzell, J.D., Chai, A., 1994. Reduced Plasma Peroxyl Radical Trapping Capacity and Increased Susceptibility of LDL to Oxidation Poorly Controlled IDDM. *Diabetes.* 43(8):1010 – 4
- Tsikas, D., 2016. Assesment of Lipid Peroxidation by Measuring Malondialdehyde (MDA) and Relatives in Biological Samples : Analytical and Biological Callenges. *Analytic Biochem*:1-70
- Urzua, Z., Trujillo, X., Huerta, M., Trujillo-Hernandexz, B., Rios-Silva, M., Onetti, C *et al.*, 2015. Effects of Chronic Caffeine Administration on Blood Glucose Levels and on Glucose Tolerance in Healthy and Diabetic Rats. *J Int Med Res.* 40(6):2220-30
- Weddick, N.M., Brennan, A.M., Hu, F.B., Mantzoros, C.S., Van Dam, R.M., 2011. Effects of caffeinated and decaffeinated coffee on biological risk factors for type 2 diabetes : a randomized controlled trial. *J Nutr.* 10:93
- World Bank., 2013. Populasi Total Penduduk Indonesia [Serial Online]. [Cited : 03 Februari 2017 : [19 Screens]. [Available from : <http://data.worldbank.org/indicator/SP.POP.TOTL?locations=ID/>
- Yang, R.L., Shi, Y.H., Hao, G., Le, G.W., 2008. Increasing Oxidative Stress with Progressive Hyperlipidemia in Human: Relation between Malondialdehyde and Atherogenic Index. *J Clin Biochem Nutr.* 43:154-8

- Zhou, T., Chen, Y., Huang, C., Chen, G., 2012. Caffeine Induction of Sulfotransferases in Rat Liver and Intestine. *J Appl Toxicol.* 32(10): 804-9
- Zulli, A., Smith, R.M., Kubatka, P., Novak, J., Uehara, Y., Loftus, H., *et al.* 2015. Caffeine and Cardiovascular Diseases : Critical Review of Current Research. *Eur J Nutr.* 55(4):1331-43