

**DAFTAR PUSTAKA**

- Aksono, E.B. (2011). Etik Pada Hewan. Aplikasi Etik dan Bioteknologi pada Hewan Coba. *Fakultas Kedokteran Hewan dan IBIKK TDD,C Lembaga Penyakit Tropis Unair*.
- Alexandru, I. (2011). Experimental use of animal in research spa. *Balneo Research Journal*. 2 : 1.
- Al-Gayyar, M.M., Abdelsaid, M.A., Matragoon, S. (2011). Thioredoxin interacting protein is a novel mediator of retinal inflammation and neurotoxicity. *Br J Pharmacol*. 164:170-180.
- Al-Majid A., Alassiri S., Rathnayake N., Tervahartiala T., Gieselmann DR. and Sorsa T. (2018). Matrix Metalloproteinase-8 as an Inflammatory and Prevention Biomarker in Periodontal and Peri-Implant Diseases. *International Journal of Dentistry*. 1-27
- Almiral, J., Blanquer, J., and Bello, S. (2014). Community-acquired Pneumonia Among Smokers. *Arch Bronconeumol*. 50 : 250 – 254.
- Alttas, O. and Haffor, A. (2010). Effects of hyperoxia periodic training on free radicals production, biological antioxidants potential and lactate dehydrogenase activity in the lungs of rats, *Rattus norvigicus*. *Saudi J Biol Sci*. 17 (1) : 65 – 71.
- Amalinei C, Caruntu ID, Ginsca SE, Balan RA (2010) Matrix metalloproteinase involvement in pathological condition. *Rom J Morphol Embryol* 52:215–228.
- American Cancer Society. (2015). Lung Cancer Prevention and Early Detection. *American Lung Association*.
- Amrock, S.M., Lee, L. and Weitzman, M. (2016). Perceptions of e-Cigarettes and Noncigarette Tobacco Products Among US Youth. *Pediatrics*. 138(5):e20154306.
- Antus, B. And Kardos, Z. (2015). Oxidative Stress in COPD: Molecular Background and Clinical Monitoring. *Current Medicinal Chemistry*. 22:627-650.
- Aprioku JS. (2013). Pharmacology of Free Radicals and the Impact of Reactive Oxygen Species on the Testis. *Journal of Reproduction & Infertility*. 14(4):158-172.
- Arnson Y., Shoenfeld Y. and Amital H. (2010). Effects of tobacco smoke on immunity, inflammation and autoimmunity. *J. Autoimmun*. 34:J258–J265.

- Asano, K., Shikama, Y., Shoji, N., Hirano K., Suzaki H. and Nakajima H. (2010). Tiotropium bromide inhibits TGF- $\beta$ -induced MMP production from lung fibroblasts by interfering with Smad and MAPK pathway in vitro. *International Journal of Chronic Obstructive Pulmonary Disease*. 5:277-286.
- Ayala, A., Munoz, M. and Arguelles, S. (2014). Lipid Peroxidation: Production, Metabolism, and Signaling Mechanisms of Malondialdehyde and 4-Hydroxy-2-Nonenal. *Oxidative Medicine and Cellular Longevity*. 1-19.
- Aziz J., Shezali H., Radzi Z., Yahya NA., Abu K. Czernuszka J. and Rahman MT. (2016). Molecular Mechanisms of Stress-Responsive Changes in Collagen and Elastin Networks in Skin. *Skin Pharmacology and Physiology*. 29:190-203.
- Badan Litbangkes. (2013). Riset Kesehatan Dasar. Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI 2013.
- Badan Penelitian dan Pengembangan Kesehatan. (2018). Laporan hasil riset kesehatan dasar 2014, Kementerian kesehatan RI.
- Bak, J.H., Lee, S.M. And Lim, H.B. (2015). Safety Assessment of Mainstream Smoke of Herbal Cigarette. *Toxicological Research*. 31(1):41-48.
- Balmes, J.R., Cisternas, M., Quinlan, P.J., Trupin, L., Lurmann, F.W. and Katz, P.P. (2014). Annual average ambient particulate matter exposure estimates, measured home particulate matter, and hair nicotine are associated with respiratory outcomes in adults with asthma. *Environ Res*. 129:1-10.
- Bateman, E.D., Turner-warwick, M. and Adellman, B.C. (1981). Immunohistochemical study of collagen types in human foetal lung and fibrotic lung disease. *Thorax*. 36:645-653.
- Benowitz, N.L., Hukkanen, J. And Jacob, P. (2009). Nicotine Chemistry, Metabolism, Kinetics and Biomarkers. *Handb Exp Pharmacol*. 192:29-60.
- Bentley DJ., Ackerman J., Clifford T. and Slattery KS. (2015). Acute and Chronic Effects of Antioxidant Supplementation on Exercise Performance. *Antioxidant in Sport Nutrition*. 9:1-28.
- Bettger, W.J. (1993). Zinc and Selenium, Site-specific Versus General Antioxidant. *Can J Physiol Pharmacol*. 71(9):721-724.
- Bhattacharya, M. and Chakraborty, S. (2015). Free Radicals and Naturally Occurring Antioxidants. *Journal of Pharmacognosy and Phytochemistry*. 3(3):1-7.

- Birben, E., Sahiner, U.M., Sackesen, C., Erzurum, S., and Kalayci, O. (2012). Oxidative Stress and Antioxidant Defense. *World Allergy Organ J., NCBI*. 5(1): 9–19.
- Bouzid M.A., Hammouda O., Matran R., Robin S., and Fabre C. (2015). Influence of physical fitness on antioxidant activity and malondialdehyde level in healthy older adults. *Appl Physiol Nutr Metab.* 40 (6) : 582 – 589
- Brasier, B.B. and Kodgule, R. (2012). Risk Factor and Pathophysiology of Chronic Obstructive Pulmonary Disease. *Supplement to JAPI.* 60 : 17 – 21.
- Bridge, G., Rashid, S., Martin, S.A. (2014). DNA Mismatch Repair and Oxidative DNA Damage: Implications for Cancer Biology and Treatment. *Cancers.* 6(3):1597-1614.
- Brigelius-Flohe, R. and Maiorino, M. (2012). Glutathione peroxidases. *Biochim. Biophys. Acta*, in press.
- Brigelius-Flohé, R. And Maiorino, M. (2013). Glutathione peroxidases. *Biochimica et Biophysica Acta.* 1830(5):3289–3303.
- Cai, X., Wang, C., Tu, W., Fan, W., Wang, S., Shen, N., Wu, P., Li, X. and Wang, F. (2016). Selenium Exposure and Cancer Risk: an Updated Meta-analysis and Meta-regression. 6:1-18
- Cancer council. 2009. Selenium. Public Health Comitee. *Cancer Council Australia*, <http://www.cancer.org.au>
- Cardoso, B.R., Roberts, B.R., Bush, A.I. And Hare, D.J. (2015). Selenium, selenoproteins and neurodegenerative disease. *Metallomics, Royal Society of Chemistry.* 7:1213-1228.
- Carillon J., Notin C., Schmitt K., Simoneau G. and Lacan D. (2014). Dietary Supplementation with a Superoxide Dismutase-Melon Concentrate Reduces Stress, Physical and Mental Fatigue in Healthy People: A Randomised, Double-Blind, Placebo-Controlled Trial. *Nutrients.* 6(6):2348-2359.
- Centers for Disease Control and Prevention. (2014). *Action on Smoking and Health.*
- Centers for Disease Control and Prevention. (2016). National Center for Health statistics. U.S. Department of Health and Human Services.
- Chad, K.O., Murray, L.A. And Molfini, N.A. (2013). Smoking and Idiopathic Pulmonary Fibrosis. *Pulmonary Medicine.* 1-13.
- Chamhair, S. and Erzurum, S.C. (2010). Redox control of asthma: molecular mechanisms and therapeutic opportunities. *Antioxidants Redox Signaling.* 12:93-124.

- Chen J., Chu Y., Cao J., Wang W., Liu J. and Wang J. (2011). Effects of T-2 toxin and selenium on chondrocyte expression of matrix metalloproteinases (MMP-1, MMP-13),  $\alpha$ 2-macroglobulin ( $\alpha$ 2M) and TIMPs. *Toxicol In Vitro*. 25(2):492-499.
- Chen, A., Glantz, S. and Tong, E. (2007). Asian Herbal-Tobacco Cigarettes: "Not Medicine but Less Harmfull"? *Tobacco Control*. 1-8.
- Chen, G.Y. And Nunez, G. (2010). Sterile inflammation: sensing and reacting to damage. *Nat Rev Immunol*. 10:826–837.
- Churg, A., Zhou, S. and Wright, J.L. (2012). Matrix metalloproteinases in COPD. *European Respiratory Journal*. 39(1):197-209.
- Coogan, P.F., Castro-Webb, N., Yu, J., O'Connor, G.T., Palmer, J.R., Rosenberg, L. (2015). Active and passive smoking and the incidence of asthma in the Black Women's Health Study. *Am J Respir Crit Care Med, NCBI*. 191 (2) : 168-76.
- Cook-Mills, J.M. (2013<sup>a</sup>). Isoforms of vitamin E differentially regulate PKC  $\alpha$  and inflammation: a review. *J Clin Cell Immunol*. 4(137):1000137.
- Cook-Mills, J.M., Abdala-Valencia, H., Hartert, T. (2013<sup>b</sup>). Two faces of vitamin E in the Lung. *Am J Respir Crit Care Med*. 188:279-84.
- Cool, C.D., Groshong, S.D., Rai, P.R. (2006). Fibroblast foci are not discrete sites of lung injury or repair: the fibroblast reticulum. *Am J Respir Crit Care Med*. 174:654-658.
- Correll KA., Edeen KE., Zemans RL. Redente EF., Serban KA. And Everett DC. (2019). Transitional human alveolar type II epithelial cells suppress extracellular matrix and growth factor gene expression in lung fibroblasts. *American Journal of Physiology-Lung Cellular and Molecular Physiology*. 317 (2):L283-L294.
- Cosgrove, G.P., Brown, K.K., Schiemann, W.P. (2004). Pigment epithelium-derived factor in idiopathic pulmonary fibrosis: a role in aberrant angiogenesis. *Am J Respir Crit Care Med*. 170: 242–251.
- Craig, V.J., Quintero, P.A., Fyfe, S.E., Patel, A.S., Knolle, M.D., Kobzik, L. and Owen, C.A. (2013). Pro fibrotic Activities for Matrix Metalloproteinase-8 during Bleomycin-mediated Lung Injury. *Journal Immunology*. 190(8):4283-4296.
- Craig, V.J., Zhang, L., Hagood, J.S. and Owen, CA. (2015). Matrix metalloproteinases as therapeutic targets for idiopathic pulmonary fibrosis. *Am J Respir Cell Mol Biol*. 53(5):585-600.

- Csillag, A., Boldogh, I., Pazmandi, K. (2010). Pollen-induced oxidative stress influences both innate and adaptive immune responses via altering dendritic cell functions. *Journal of Immunology*. 184(5):2377–2385.
- Cyktor, J.C. And Turner, J. (2011). Interleukin-10 and Immunity against Prokaryotic and Eukaryotic Intracellular Pathogens. *Infection and Immunity*. 78(8):p.2964–2973.
- Da silva, M.D., Bobinski, F., Sato, K.L., Kolker, S.J., Sluka, K.A. And Santos, A.R. (2015). IL-10 cytokine released from M2 macrophages is crucial for analgesic and anti-inflammatory effects of acupuncture in a model of inflammatory muscle pain. *Molecular Neurobiology*. 51(1):19-31.
- Daloe MH., Avan A., Mirhafez SR., Kavousi E., Hasanian M. and Darroudi S. (2017). Impact of Cigarette Smoking on Serum Pro- and Anti-Inflammatory Cytokines and Growth Factors. *American Journal of Men's Health*. 11(4):1169-1173.
- Dancer, R.C.A., Wood, A.M., and Thickett, D.R. (2011). Metalloproteinases in idiopathic pulmonary fibrosis. *European Respiratory Journal*. 38: 1461–1467.
- Das, K. and Roychoudhury, A. (2014). Reactive oxygen species (ROS) and response of antioxidants as ROS-scavengers during environmental stress in plants. *Frontiers in environmental science*. 2 (53) : 1 – 13.
- David, J.M., Dominguez, C., Hamilton, D.H., and Palena, C. (2016). The IL-8/IL-8R Axis: A Double Agent Fahy JV. and Dickey BF. (2010) Airway mucus function and dysfunction. *N Engl J Med*. 363(23):2233–2247.
- Davies, M.J. (2016). Protein Oxidation and Peroxidation. *Biochemical Journal*. 1(475):805-825.
- Departement Health Republic of South Africa. (2014). *National Tuberkulosis Management Guidelines*.
- Department of the Environment. (2014). *National Pollutant Inventory*. Australian Government.
- Dessaix, A., Maag, A., McKenie, J., and Currow, D.C. (2016). Factors influencing reductions in smoking among Australian adolescents. *Public health research & practice*. 26(1);e2611605.
- Dizdaroglu, M. (2012). Oxidatively induced DNA damage: Mechanisms, repair and disease. *Cancer Lett*. 327:26–47.

- Domijana, A.M., Ralic, J., Brkanac, S.R., Rumorad, L. and Grubisic, T.Z. (2014). Quantification of malondialdehyde by HPLC-FL – application to various biological samples. *Biomedical Chromatography*. 29 : 41 – 46.
- Domingues, R.M., Domingues, P., Melo, T., Pérez-Sala, D., Reis, A. and Spickett, C.M. (2013). Lipoxidation adducts with peptides and proteins: deleterious modifications or signaling mechanisms? *Journal of Proteomics*. 92:110–131.
- Dossus, L., Boutron, M.C., Kaaks, R., and Gram, I.T. (2014). Active and passive cigarette smoking and breast cancer risk: Results from the EPIC cohort. *International Journal of Cancer*. 134 : 1871–1888.
- Durackova, Z. (2010). Some current insights into oxidative stress. *Physiological Research*. 59(4):459–469.
- Ericson, W. and Kaye, A.D. (2014). Steroids: Pharmacology, Complications, and Practice Delivery Issues. *The Ochsner Journal*. 14(2):203-207.
- European Commission workshop. (2010). Are mice relevant models for human disease. London, UK.
- Fairweather-Tait, S.J., Collings, R. and Hurst, R. (2010). Selenium bioavailability: Current knowledge and future research requirements. *Am. J. Clin. Nutr.* 91, 1484S–1491S.
- Farsalinos, K.E. and Polosa, R. (2014). Safety evaluation and risk assessment of electronic cigarettes as tobacco cigarette substitutes: a systematic review. *Therapeutic Advances in Drug Safety*. 5(4):67-86.
- Favier H., Osman M., Intes L. and Montanari B. (2016). Positive effects of an oral supplementation by Glisodin, a gliadin-combined SOD-rich melon extract, in an animal model of dietary-induced oxidative stress. 14 (1) : 29 – 34.
- Fukai T. and Fukai MU. (2011). Superoxide Dismutases: Role in Redox Signaling, Vascular Function, and Diseases. *Antioxidants & Redox Signaling*. 15(6):1583-1606.
- Furrukh, M. (2013). Tobacco Smoking and Lung Cancer. *SQU Medical Journal*. 13(3):345-358.
- Gallus, S., Rosato, V., Zuccaro, P., Pacifici, R., Colombo, P., Manzari, M. Attitudes towards the extension of smoking restrictions to selected outdoor areas in Italy. *Tob Control*. 2012; 21:59–62.

- Gan, Q., Yang, J., Yang, G., Goniewicz, M., Benowitz, N.L. And Glantz, S.A. (2009). Chinese “Herbal” Cigarettes are as Carcinogenic and Addictive as Regular Cigarettes. *Cancer Epidemiol Biomarkers Prev.* 18(12): 3497–3501.
- Garcia-Vaquero, M., Miranda, M., Benedito, J.L., Blanco-Penedo, I., Lopez-Alonso, M. (2011). Effect of type of muscle and Cu supplementation on trace element concentrations in cattle meat. *Food Chem. Toxicol.* 49: 1443–1449.
- Genestra M. (2007). Oxyl radicals, redox-sensitive signalling cascades and antioxidants. *Review Cell Signal.* 19(9):1807–1819.
- Ghimire, M., Bhattacharya, S.K. and Narain, J.P. (2012). Pneumonia in South-East Asia Region: Public health perspective. *Indian J Med.* 135 : 459 – 468.
- Giera, M., Lingeman, H., and Niessen, W.M.A. (2012). Recent advancements in the LC- and GC-based analysis of malondialdehyde (MDA): a brief overview. *Chromatographia.* 75(9-10):433–440.
- Glasser SW., Hagood JS., Wong S., Taype CA., Mandala SK. And Hardie WD. (2016). Mechanisms of Lung Fibrosis Resolution. *The American Journal of Pathology.* 186(5):1066-1077.
- Global Initiative for Chronic Obstructive Lung Disease. (2018). GOLD
- Global Report on Trends in Prevalence of Tobacco Smoking. (2015). World Health Organization.
- Gracanin, M., Hawkins, C.L., Pattison, D.I. and Davies, M.J. (2009). Singlet-oxygen-mediated amino acid and protein oxidation: formation of tryptophan peroxides and decomposition products. *Free Radical Biology and Medicine.* 47(1):92–102.
- Grana, R.A., Ling, P.M., Benowitz, N. and Glantz, S. (2014). Electronic Cigarettes. *Circulation.* 129(19):e490-492.
- Gregory, L.G., Jones, C.P., Mathie, S.A., Pegorier, S. and Lloyd, C.M. (2013). Endothelin-1 directs airway remodeling and hyper-reactivity in a murine asthma model. *Allergy.* 68:1579–1588.
- Griffiths K., Aggarwal BB., Singh RB., Buttar HS., Wilson D. and Meester FD. (2016). Food Antioxidants and Their Anti-Inflammatory Properties: A Potential Role in Cardiovascular Diseases and Cancer Prevention. *Disease.* 4(3):28.
- Gunther, A., Mosavi, P., Ruppert, C. (2000). Enhanced tissue factor pathway activity and fibrin turnover in the alveolar compartment of patients with interstitial lung disease. *Thromb Haemost.* 83: 853–860.

- Halliwell, B. and Gutteridge, J.M.C. (2007). *Free Radicals in Biology and Medicine*. 3rd edition. Oxford, UK: Oxford University Press.
- Hamid, I.S. (2011). Blood Collections. Aplikasi Etik dan Bioteknologi pada Hewan Coba. *Fakultas Kedokteran Hewan dan IBIKK TDD,C Lembaga Penyakit Tropis Unair*.
- Hasan S., Fatima N., Bilal N., Suhail N., Fatima S., Morgan E.N., Aldebasy Y., Alzohairy M.A., and Banu N. (2013). Effect of chronic unpredictable stress on short term dietary restriction and its modulation by multivitamin-mineral supplementation. *Appetite, Pubmed*. 65 : 68 – 74.
- Health & Social Care Information Centre. (2016). Statistics on Smoking. England.
- Hefnawy, A.E.G. and Tórtora-Pérez, J.L. (2010) The importance of selenium and the effects of its deficiency in animal health. *Small Rumin. Res.* 89:185–192.
- Higaki M., Wada H., Mikura S., Yasutake T., Nakamura M., Niikura M., Kobayasi F., Kamma H., Kamiya S., Ito K., Barnes PJ., Goto H. and Takizawa H. Interleukin-10 modulates pulmonary neutrophilic inflammation induced by cigarette smoke exposure. *Exp Lung Res.* 41(10):525-534.
- Ho, E., Galoughi, K.K., Liu, C., Bhind, R. and Figtree, G.A. (2013). Biological markers of oxidative stress: Applications to cardiovascular research and practice. *Redox Biol.* 1 (1) : 483 – 491.
- Hodgson, P.D., Aich, P., Stookey, J. (2012). Stress significantly increases mortality following a secondary bacterial respiratory infection. *Veterinary Research.* 43:21.
- Hopps, E. and Caimi, G. (2013). Protein Oxidation in Metabolic Syndrome. *Clin Invest Med.* 36 (1) : E1-E8.
- Hoyt, G.L. (2013). Cigarette smoking: Nicotine, Carbon Monoxide and the Physiological Effects on Exercise Responses. *Sport Science Review.* 22(1-2):5-24.
- Hua, M. and Talbot, P. (2016). Potential Health Effect of Electronic Cigarettes : A Systematic Review of Case Reports. *Preventive Medicine Reports.* 4:169-178.
- Huang C., Liao G., Han J., Zhang G. and Zou B. (2016). Edaravone suppresses degradation of type II collagen. *Biochem Biophys Res Commun.* 2016 May 13;473(4):840-844.
- Hyland, A., Barnoya, J. and Corral, J.E. (2012). Smoke-free air policies: past, present and future. *Tobacco Control.* 21:154–161.



- Ighodaro, O.M. And Akinloye, O.A. (2017). First line defence antioxidants-superoxide dismutase (SOD), catalase (CAT) and glutathione peroxidase (GPX): Their fundamental role in the entire antioxidant defence grid. *Alexandria Journal of Medicine, Elsevier*. 1-7.
- Ihara S., Hirata Y. and Koike K. (2017). TGF- $\beta$  in inflammatory bowel disease: a key regulator of immune cells, epithelium, and the intestinal microbiota. *Journal of Gastroenterology*. 52(7):777–787
- Infodatin. (2014). Perilaku Merokok Masyarakat Indonesia berdasarkan Rikesdas 2007 dan Rikesdas 2013. Pusat Data dan Informasi Kementerian Kesehatan Republik Indonesia.
- Institute for Public Health. (2015). *National Health & Morbidity Survey*. Ministry of Health Malaysia.
- Institute of Medicine. (2010). *Secondhand Smoke Exposure and Cardiovascular Effects: Making Sense of the Evidence*. Washington, DC: The National Academies Press.
- Islami, F., Torre, L.A. and Jemal, A. (2015). Global trends of lung cancer mortality and smoking prevalence. *Translational Lung Cancer Research*. 4(4): 327–338.
- Iwasaki, A. and Medzhitov, R. (2010). Regulation of adaptive immunity by the innate immune system. *Science*. 327:291–295.
- Iyer, S.S. and Cheng, G. (2012). Role of Interleukin 10 Transcriptional Regulation in Inflammation and Autoimmune Disease. *Crit Rev Immunology*. 32(1):23-63.
- Jarosz, M., Olbert, M. and Wyszogrodzka, G. (2017). Antioxidant and anti-inflammatory effects of zinc. Zinc-dependent NF-KB signaling. *Inflammopharmacology*. 25:11-24.
- Jenkins, C.R., Postma, D.S., Anzueto, A.R., Make, B.J., Peterson, S., Eriksson, G. and Calverley, P.M. (2015). Reliever Salbitamol Use As a Measure of Exacerbation Risk in Chronic Obstructive Pulmonary Disease. *BMC Pulmonary Medicine*. 15:96.
- Jetawattana, S. (2006). Malondialdehyde (MDA), a lipid oxidation product. *Free Radical and Radiation Biology*, The University of Iowa Iowa City. IA 52242-1181.
- Jiang, F., Liu, G-SS., Dusting, G.J. and Chan, E.C. (2014). NADPH oxidase-dependent redox signaling in TGF- $\beta$ -mediated fibrotic responses. *Redox Biol*. 2:267–272.

- Jindal, S.K. (2014). Effects of smoking on Asthma. *supplement to Journal of the association of physicians of india*. 62 : 32 – 37.
- Kabel, A.M. (2014). Free Radicals and Antioxidants: Role of Enzymes and Nutrition. *World Journal of Nutrition and Health*, 2(3):35-38.
- Kabuyama Y., Oshima K., Kitamura T., Homma M., Yamaki J., Munakata M. and Homma Y. (2007). Involvement of selenoprotein P in the regulation of redox balance and myofibroblast viability in idiopathic pulmonary fibrosis. *Molecular Biology Society*. 12:1235-1244.
- Kangralkar, V.A., Patil, S.D., and Bandivadekar, R.M. (2010). Oxidative stress and diabetes: A review. *Intl J Pharm Appl*. 1:38-45
- Kementrian Kesehatan. 2013. Undang-undang No 75 Tahun 2013. Tentang Angka Kecukupan Gizi yang dianjurkan bagi bangsa Indonesia. Negara RI tahun 2013, No 1438. Menteri kesehatan. Jakarta
- Kennedy, R.D., Behm, I., Craig, L., Thompson, M.E., Fong, G.T. and Guignard, R. (2012). Outdoor smoking behaviour and support for outdoor smoking restrictions before and after France's national smoking ban. *Eur J Public Health*. 22(1):29–34.
- Kenyon NJ. And Last JA. (2005). Reversible and irreversible airway inflammation and fibrosis in mice exposed to inhaled ovalbumin. *Inflammation Research*. 54(2):57-65.
- Khoubnasabjafari, M., Ansarin, K. and Jouyban, A. (2015). Reliability of malondialdehyde as a biomarker of oxidative stress in psychological disorders. *Bioimpacts*. 5(3): 123–127
- Kinder, B.W., Brown, K.K., Schwarz, M.I. (2008). Baseline BAL neutrophilia predicts early mortality in idiopathic pulmonary fibrosis. *Chest*. 133: 226–232.
- King, P.T. (2015). Inflammation in chronic obstructive pulmonary disease and its role in cardiovascular disease and lung cancer. *Clinical and Translational Medicine*. 4:26.
- Kinnunen, P.K.J., Kaarniranta, K. and Mahalka, AK. (2012). Protein-oxidized phospholipid interactions in cellular signaling for cell death: from biophysics to clinical correlations. *Biochimica et Biophysica Acta*. 1818(10):2446–2455.
- Kolaczowska, E. and Paul, K. (2013). Neutrophil Recruitment and Function in Health and Inflammation. *Nature Reviews Immunology*. 13:159-175.
- Kruger, J., Patel, R., Kegler, M., Babb, S. and King, B. (2016). Perceptions of harm from secondhand smoke exposure among U.S. adults, 2009–2010. 14:3.

- Kryston, T.B., Georgiev, A.B., Pissis, P., and Georgakilas, A.G. (2011). Role of oxidative stress and DNA damage in human carcinogenesis. *Mutat. Res.* 711:193–201.
- Kulkarni T., O'Reilly P., Antony VB., Gaggar A. and Thannickal VJ. (2016). Matrix Remodeling in Pulmonary Fibrosis and Emphysema. *American Thoracic Society.* 54(6):751-760.
- Kusmana, F. (2017). Selenium : Peranannya dalam berbagai penyakit dan alergi. *Continuing Professional Development.* 44(4):289-294.
- Kwilasz AJ., Grace PM., Serbedzija P., Maier SF. And Watkins LR. (2015). The therapeutic potential of interleukin-10 in neuroimmune diseases. *Neuropharmacology.* 96:55-69.
- Laborin, R.L. (2009). Smoking and Chronic Obstructive Pulmonary Disease (COPD). Parallel Epidemics of the 21<sup>st</sup> Century. *International Journal of Environmental Research and Public Health.* 6(1):209-224.
- Labunskyy, V.M., Hatfield, D.L. And Gladyshev, V.N. (2014). Selenoproteins: Molecular Pathways and Physiological Roles. *American Physiological Society.* 94(3):739-777.
- Lambrecht BN. (2006). Alveolar macrophage in the driver's seat. *Immunity.* 2006 24(4):366-8.
- Lammi MJ. And Qu C. (2018). Selenium-related transcriptional regulation of gene expression. *Int. J. mol. Sci.* 19:2665.
- Lawrence LA., Mulligan JK., Roach C., Pasquini WN., Soler ZM., Banglawala SM., Karnezis TT., Gudis DA. And Schlosser. (2015). *Am J. Rhinol Allergy.* 29(2):89-93.
- Lazuardi M. (2011). Penyakit dan Penanganannya Pada Hewan Coba. Aplikasi Etik dan Bioteknologi pada Hewan Coba. *Fakultas Kedokteran Hewan dan IbIKK TDD,C Lembaga Penyakit Tropis Unair.*
- Lee, R. (2017). Current Issues Regarding E-Cigarettes. *The American Journal of Psychiatry Resident Journal.* 11(10):7-9
- Lee, S.R. (2018). Critical Role of Zinc as Either an Antioxidant or a Prooxidant in Cellular Systems. *Oxidative Medicine and Cellular Longevity.* 1–11.
- Leung, D.Y.M. And Ledford, D.K. (2014). Effects of antioxidant supplements and nutrients on patients with asthma and allergies. *J Allergy Clin Immunol.* 133:1237-44.

- Li, H., You, H., Fan, X. and Jia, J. (2016). Hepatic macrophages in liver fibrosis: pathogenesis and potential therapeutic targets. *BMJ Open Gastroenterology*. 1-4.
- Liu, Y., Gao, W. and Zhang, D. (2009). Effects of cigarette smoke extract on A549 cells and human lung fibroblasts treated with transforming growth factor- $\beta$ 1 in a coculture system. *Clinical and Experimental Medicine*. 10(3):159–167.
- Lobo, V., Patil, A., Phatak, A. and Chandra, N. (2010). Free radicals, antioxidants and functional foods: impact on human health. *Pharmacogn Rev*. 4:118-26.
- Loffredo, C.A., Radwan, G.N., Eltahlawy, E.M., El-Setouhy, M., Magder, L. and Hussein, M.H. (2015). Estimates of the Prevalence of Tobacco Smoking in Egypt. *Open Journal of Epidemiology*. 5:129-135.
- Lu, J. and Holmgren, A. (2009). Selenoproteins. *the journal of biological chemistry*. 284(2):723–727.
- Lucattelli M., Cavarra E., Santi MM., Tetley TD., Martorana PA. and Lungarella G. (2003). Collagen phagocytosis by lung alveolar macrophages in animal model of emphysema. *European Respiratory Journal*. 22:728-734.
- Mao P., Wu S., Li J., Fu W., He W., Liu X., Slutsky AS., Zhang H. and Li Y. (2015). Human Alveolar Epithelial Type II Cells in Primary Culture. *Physiological Reports*. 3(2):1-15).
- Martinez, C., Guydish, J., Robinson, G., Sanchez, J.M. And Fernandez, E. (2014). Assessment of the smoke-free outdoor regulation in the WHO European region. *Prev Med*. 64:37-40.
- Martinez, C., Martinez-Sanchez, J.M., Robinson, G., Berther, C. and Fernandez, E. (2013). Protection to Secondhand Smoke in the WHO European Region: an assessment of legislation. *Tobacco Control*.
- Massion, P., Sequist, L. and William, P. (2013). Neoplasms of The Lung, Biology of Lung Cancer. *Clinical respiratory Medicine*. J (51) : 912 – 926.
- Mattmiller, S.A., Bradley, A. and Sordillo, L.M. (2013). Regulation of Inflammation by Selenium and Selenoproteins : Impact On Eicosanoid Biosynthesis. *Journal of Nutritional Science, Nutritional Immunology*. 1-13.
- McKleroy, W., Lee, T.H. And Atabai, K. (2013). Always Cleave Up Your Mess : Targeting Collagen Degradation to Treat Tissue Fibrosis. *Am J Physiol Lung Mol Physiol*. 304(11):L709-L721.
- Mehdi, Y., Hornick, J.L., Istasse, L. and Dufrasne, I. (2013). Selenium in the Environment, Metabolism and Involvement in Body Functions. *Molecules*. 18:3292-3311.

- Meles, D.K. (2011). Anestetik dan Eutanasia. Aplikasi Etik dan Bioteknologi pada Hewan Coba. *Fakultas Kedokteran Hewan dan IBIKK TDD,C Lembaga Penyakit Tropis Unair*.
- Meschy, F. (2010). Nutrition minérale des ruminants; Editions Quae: Versaille, France. p. 208.
- Mishra, A., Chaturedi, P., Datta, S., Sinukumar, S., Joshi, P., and Garg, A. (2015). Harmful Effects of Nicotine. *Indian Journal of Medical and Paediatric Oncology*. 36(1):24-31.
- Mishra, S., Joseph, R.A., Gupta, P.C., Pezzack, B., Ram, F., Sinha, D.N., Dikshit, R., Patra, J., and Jha, P. (2016). Trends in bidi and cigarette smoking in India from 1998 to 2015, by age, gender and education. *BMJ Glob Health*. 1:e000005.
- Mistry, H.D. Pipkin, F.B., Redman, C.W. and Poston, L. (2012). Selenium in reproductive health. *Am. J. Obstet. Gynecol*. 206:21–30.
- Moldoveanu B., Otmishi P., Jani P., Walker J., Sarmiento X., Guardiola J., Saad M. and Yu J. (2009). *Inflammatory mechanisms in the lung. J. Inflamm. Res.* 2, 1–11.
- Moore B., Lawson WE., Oury TD., Sisson TH., Raghavendran K. and Hogaboam CM. (2013). Animal models of fibrotic lung disease. *Am J Respir Cell Mol Biol*. 49:167-179.
- Murray, L.A., Argentieri, R.L., Farrell, F.X. (2008). Hyper-responsiveness of IPF/UIP fibroblasts: interplay between TGF $\beta$ 1, IL-13 and CCL2. *International Journal of Biochemistry and Cell Biology*. 40(10):2174–2182.
- Naeem, Z. (2015). Second-hand smoke – ignored implications. *International Journal of Health Sciences*. 9(2): PMC4538886.
- Narasimhan, P., Wood, J., Raina, C., Intyre, M. and Mathai, D. (2013). Risk Factors for Tuberculosis. *Pulmonary Medicine. Hindawi*.
- Nelson, S.M., Lei, X., and Prabhu, K.S. (2011). Selenium Level Affect the IL-4 Induced Expression of Alternative Activation Markers in Murin Macrophage. *The Journal of Nutrition, Nutrition Immunology*.1754-1761.
- Nimse SB. And Pal D. (2015). Free radical, natural antioxidant, and their reaction mechanisms. *Royal Society of Chemistry*. 5:27986-28006.
- Ning, Y., Shang, Y., Huang, H., Zhang, J., Dong, Y., Xu, W. and Li, Q. (2013). Attenuation of Cigarette Smoke-Induced Airway Production by Hydrogen-Rich Saline in Rats. *PLOS, NCBI*. 8(12): e83429.

- Nizri E., Irony-Tur-Sinai M., Lory O., Orr-Urtreger A., Lavi E. and Brenner T. (2009). Activation of the cholinergic anti-inflammatory system by nicotine attenuates neuroinflammation via suppression of Th1 and Th17 responses. *J. Immunol.* 183:6681–6688.
- O'Garra, A., Barrat, F.J., Castro, A.G., Vicari, A. and Hawrylowicz, C. Strategies for use of IL-10 or its antagonists in human disease. *Immunol Rev.* 2008; 223:114–31.
- Oenema, T.A., Maarsingh, H., Smit, M., Groothuis, G.M.M., Meurs, H. and Gosens, R. (2013). Bronchoconstriction induces TGF- $\beta$  release and airway remodelling in guinea pig lung slices. *PLoS One.* 8:e65580.
- Oenema, T.A., Smit, M., Smedinga, L., Racke, K., Halayko, A.J., Meurs, H. and Gosens R. (2012). Muscarinic receptor stimulation augments TGF- $\beta$ 1-induced contractile protein expression by airway smooth muscle cells. *Am J Physiol Lung Cell Mol Physiol.* 303:L589–L597.
- Ogundeji T., Ayo J.O., Aluwong T. and Mohammed A. (2013). Behavioural and haematological studies on effects of lycopene in Wistar rats subjected to psychological stress. *Journal of Neuroscience and Behavioural Health, Academic Journal.* 5 (2) : 30 – 35.
- Ojiaku, C.A., Yoo, E.J. And Panettieri. (2017). Transforming Growth Factor  $\beta$ 1 Function in Airway Remodeling and Hyperresponsiveness. The Missing Link?. *Am J Respir Cell Mol Biol.* 56(4): 432–442.
- Olmedo P., Goessler W., Tanda S., Garu M., Jarmul S. Aherrera A. and Rule AM. (2018). Metal Concentrations in E-cigarette Liquid and Aerosol Samples: The Contribution of Metallic Coils. *Environmental Health Perspectives.* 126(2):027010.
- Palazzolo DL., Crow AP., Nelson JM. And Johnson RA. (2016). Trace Metals Derived from Electronic Cigarette (ECIG) Generated Aerosol: Potential Problem of ECIG Devices That Contain Nickel. *Frontiers in Physiology.* 7:663.
- Papathanasiou, G., Mamali, A., Papafloratos, S., and Zerva, E. (2014). Effects of Smoking on Cardiovascular Function: The Role of Nicotine and Carbon Monoxide. *Health Science Journal, Technological Educational Institute of Athens, Department of Nursing .* 8 (2) : 274 – 290.
- Papp, L.V., Holmgren, A. And Khanna, K.K. (2010). Selenium and selenoproteins in health and disease. *Antioxid. Redox Signal.* 12, 793–795.

- Parveen, A., Parveen, B., Parveen, R. and Ahmad, S. (2015). Challenges and Guidelines for Clinical Trial of Herbal Drugs. *J Pharm Bioallied Sci.* 7(4):329-333.
- Patra, J., Bhatia, M., Suraweera, W., Morris, S.K., Patra, C., Gupta, P.C. and Jha, P. (2015). Exposure to Second-Hand Smoke and the Risk of Tuberculosis in Children and Adults: A Systematic Review and Meta-Analysis of 18 Observational Studies. *PLoS Med.* 12(6): e1001835.
- Peraturan Pemerintah Republik Indonesia No. 109 Tahun 2012. tentang pengamanan bahan yang mengandung zat adiktif berupa produk tembakau bagi kesehatan. Lembaran Negara RI tahun 2012, No 5380. Sekretariat Negara. Jakarta.
- Phaniendra, A., Jestadi, D.B., and Periyasamy, L. (2015). Free Radicals: Properties, Sources, Targets, and Their Implication in Various Diseases. *Indian Journal of Clinial Biochemistry.* 30(1):11-26.
- Polosa, R. and Thomson, R.C. (2013). Smoking and asthma: dangerous liaisons. *Europe Respiratory Journal.* 41: 716–726.
- Pratiwi SR., Lorensia A. and Suryadinata RV. (2018). Vitamin C and E Intake with SQ-FFQ towards Smokers' and Non-Smokers' Lung Function. *Media Kesehatan Masyarakat Indonesia.* 14(2):101-107.
- Prikk, K., Maisi, P., Pirila, E., Reintam, M.A., Salo, T., Sorsa, T. and Sepper, R. (2001). Airway obstruction correlates with collagenase-2 (MMP-8) expression and activation in bronchial asthma. *Lab Invest.* 82(11):1535-45.
- Prikk, K., Maisi, P., Pirila, E., Sepper, R., Salo, T., Wahlgren, J. and Sorsa, T. (2001). In Vivo Collagenase-2 (MMP-8) expression by Human Bronchial Epithelial Cells and Monocytes/Macrophages in Bronchiectasis. *J Pathol.* 194(2):232-238.
- Puertollano, M.A., Puertollano, E., de Cienfuegos, G.A., and de Pablo, M.A. (2011). Dietary antioxidants: immunity and host defense. *Current Topics in Medicinal Chemistry.* 11(14):1752–1766.
- Pusat Promosi Kesehatan Kementerian Kesehatan Republik Indonesia. (2011). Pedoman Pengembangan Kawasan Tanpa Rokok.
- Radwan, G., Hecht, S.S., Carmella, S.G., and Loffredo, C.A. (2013). Tobacco-Specific Nitrosamine Exposures in Smokers and Nonsmokers Exposed to Cigarette or Waterpipe Tobacco Smoke. *Nicotine and Tobacco Research.* 15(1):130–138.

- Rahal, A., Kumar, A., Singh, V., Yadav, B., Tiwari, R., Chakraborty, S., and Dhama, K. (2014). Oxidative Stress, Prooxidants, and Antioxidants: The Interplay. *BioMed Research International*. 1-19.
- Rahman, I. (2008). Antioxidant Therapeutic Advances In COPD. *Ther Adv Respir Dis*. 2(6):351-374.
- Rahman, I. and MacNee, W. (2012). Antioxidant Pharmacological Therapies For COPD. *Curr Opin Pharmacol*. 12(3):256-265.
- Ranjit S., Dvornikov A., Stakic M., Hong S. Levi M., Evan R. and Gratton E. (2015). Imaging Fibrosis and Separating Collagens using Second Harmonic Generation and Phasor Approach to Fluorescence Lifetime Imaging. *Scientific Reports*. 5: 13378.
- Rathnayake N., Gustafsson A., Norhammar A., Kjellstrom B., Klinge B., Ryden L., Tervahartiala T. and Sorsa T. (2015). Salivary Matrix Metalloproteinase-8 and -9 and Myeloperoxidase in Relation to Coronary Heart and Periodontal Diseases: A Subgroup Report from the PAROKRANK Study (Periodontitis and Its Relation to Coronary Artery Disease). *PLoS ONE*. 10(7): e0126370.
- Reis, A. and Spickett, C.M. (2012). Chemistry of phospholipid oxidation. *Biochimica et Biophysica Acta*. 1818(10):2374–2387.
- Roberts, S.A., Lawrence, M.S., Klimczak, L.J., Grimm, S.A., Fargo, D., Stojanov, P., Kiezun, A., Kryukov, G.V., Carter, S.L., and Saksena, G. (2013). An APOBEC cytidine deaminase mutagenesis pattern is widespread in human. *Cancers. Nat. Genet*. 45:970–976.
- Rock, C. and Moos, P.J. (2010). Selenoprotein P protect cells from lipid hydroperoxides generated by 15-LOX-1. *Prostaglandins Leukot Essent Fatty Acids*. 83:203-210.
- Rockey DC., Bell PD. and Hill JA. (2015). Fibrosis: a common pathway to organ injury and failure. *N Engl J Med*. 372:1138-1149.
- Romao S. (2015). Therapeutic value of oral supplementation with melon superoxide dismutase and wheat gliadin combination. *Nutrition*. 31(3):430-436.
- Sahiner, U., Birben, E., Erzurum, S., Sackesen, C., and Kalayci, O. (2011). Oxidative stress in asthma. *World Allergy Organ J*. 4:151-8.
- Schieber, M. and Chandel, N.S. (2014). ROS Function in Redox Signaling and Oxidative Stress. *Curr Biol*. 24(10):R453–R462.
- Schulz, M., Gerber, A. and Groneberg, D.A. (2016). Are Filter-Tipped Cigarettes Still Less Harmful than Non-Filter Cigarettes?—A Laser Spectrometric



- Particulate Matter Analysis from the Non-Smokers Point of View. *International Journal of Environmental Research and Public Health*. 13(4):429.
- Scientific Committee on Consumer Safety. (2012). Opinion on Nitrosamines and Secondary Amines in Cosmetic Products. *Europe Union*.
- Sedighi O., Makhloogh A., Shokrzadeh M. and Hoorshad S. (2014). Association Between Plasma Selenium and Glutathione Peroxidase Levels And Severity of Diabetic Nephropathy in Patients With Type Two Diabetes Mellitus. *Nepbro-Urology Monthly*. 6(5):e21355.
- Sedighi, O., Zargari, M., and Varshi, G. (2014). Effect of Selenium Supplementation on Glutathione Peroxidase Enzyme Activity in Patients With Chronic Kidney Disease: A Randomized Clinical Trial. *Nepbro-Urology Monthly*. 6(3):e17945.
- Selenium and Health. (2001). The British Nutrition Foundation.
- Shahab U., Ahmad S., Dixit K., Habib S. Alam K. and Ali A. (2012). Hydroxyl Radical Modification of Collagen Type II Increases Its Arthritogenicity and Immunogenicity. *PLoS ONE*. 7(2): e31199.
- Shahzad, A., Knapp, M., Lang, I., and Kohler, G. (2010). Interleukin 8 (IL-8) a universal biomarker?. *International Archives of Medicine*. 3(11):1-4.
- Shimazu, H. (2016). Determination of Polycyclic Aromatic Hydrocarbons I Cigarettes and Cigarette Smoke. *Environment and Pollution*. 5(2):15-25.
- Shohag, H., Ullah, A., Azad, A., Islam, S., Qusar, S, Shahid, S. F., and Hasnat, A. (2012). Serum Antioxidant Vitamins and Malondialdehyde Levels in Patients with Obsessive-Compulsive Disorder. *German Journal of Psychiatry*.
- Sisein, E.A. (2014). Biochemistry of Free Radicals and Antioxidants. *Scholars Academic Journal of Biosciences*. 2(2): 110-118.
- Sochr, J., Cinkova, K. and Svorc, L. (2014). Degradation Markers in Nutritional Products a Review. *Austin J Anal Pharm Chem*. 1(1): 1005.
- Soepranianondo, K. (2011). Manajemen Pemeliharaan, Pembiakan dan Penggunaan Hewan Coba. Aplikasi Etik dan Bioteknologi pada Hewan Coba. *Fakultas Kedokteran Hewan dan IBIKK TDD,C Lembaga Penyakit Tropis Unair*.
- Somm, E., Schwitzgebel, V.M., Vauthay, D.M., Camm, E.J., Chen, C.Y., Giacobino, J.P. (2008). Prenatal nicotine exposure alters early pancreatic islet and adipose tissue development with consequences on the control of body weight and glucose metabolism later in life. *Endocrinology*. 149:6289–99.

- Sorci, G. and Faivre, B. (2009). Inflammation and oxidative stress in vertebrate host-parasite systems. *Philosophical Transactions of the Royal Society B*. 364(1513):71–83.
- Sordillo, L.M. (2013). Selenium-dependent regulation of oxidative stress and immunity in periparturient dairy cattle. *Vet. Med. Int.* e154045.
- Srivastava M., Singh S. and Self WT. (2012). Exposure to silver nanoparticles inhibits selenoprotein synthesis and the activity of thioredoxin reductase. *Environmental Health Perspectives*. 120: 1-10.
- Steinbrenner, H. And Sies, H. (2009). Protection against reactive oxygen species by selenoproteins. *Biochimica et Biophysica Acta: General Subjects*. 1790(11):1478–1485.
- Strzelak A., Ratajczak A., Adamiec A. and Feleszko W. (2018). Tobacco Smoke Induces and Alters Immune Responses in the Lung Triggering Inflammation, Allergy, Asthma and Other Lung Diseases: A Mechanistic Review. *International Journal of Environmental Research and Public Health*. 15(5):1033.
- Sudiana, I.K. (2017). Hantaran Sinyal pada Proses Inflamasi. Airlangga University Press.
- Suissa, S., Dell’Aniello, S., and Ernst, P. (2012). Long-term natural history of chronic obstructive pulmonary disease: severe exacerbations and mortality. *Thorax*. 67:957–963.
- Sun, J., Madan, R., Karp, C.L., Braciale, T.J. (2009). Effector T cells control lung inflammation during acute influenza virus infection by producing IL-10. *Nat Med*. 15(3):277–84.
- Sureda, X., Fernandez, E., Lopez, M.J. and Nebot, M. (2013). Secondhand tobacco smoke exposure in open and semiopen settings: a systematic review. *Environ. Health Perspect*. 121:766–773.
- Suryadinata RV., Adriani M., Martini S., Sumarmi S. and Wirjadmadi B. (2019). The role of selenium micronutrients as antioxidants in exposure to e-cigarette smoke. *Asian Journal of Pharmaceutical and Clinical Research*. 12(8):265-268.
- Suryadinata, R.V., Wirjatmadi, B., and Adriani, M. (2017). Efektivitas Penurunan Malondialdehyde dengan Kombinasi Suplemen Antioksidan Superoxide Dismutase Melon dan Gliadin Akibat Paparan Rokok. *Global Medical and Health Communication*. 5(2):1-8.

- Susanti YE. And Wirjatmadi B. (2016). Efek Ekstrak Melon (*Cucumis melo*) dan Gliadin Terhadap Kadar Hb dan HbCO Tikus Wistar Jantan Yang Dipapar asap Rokok. *The Indonesian Journal of Public Health*. 11(1):78-88.
- Sweeney S. Theodorou IG., Zambianchi M., Chen S. Gow A., Schwander. And Zhang J. (2015). Silver nanowire interactions with primary human alveolar type-II epithelial cell secretions: contrasting bioreactivity with human alveolar type-I and type-II epithelial cells. *Nanoscale*. 7(23):10398-10409.
- Szczegieliński, J., Bogacz, K., Łuniewski, J., Majorczyk, E., Tukiendorf, A., and Czerwinski, M. (2011). The effect of physiotherapy on interleukin-8 levels in patients with chronic obstructive pulmonary disease. *Pneumonol. Alergol. Pol.* 79(3): 184–188.
- Tiddens H., Koopman LP., Elliot WM., Der Mark TW. And de Jongste JC. (2000). Cartilaginous airway wall dimensions and airway resistance in cystic fibrosis lungs. *European Respiratory*. 15:735-742.
- Tschoop, J. and Schroder, K. (2010). NLRP3 inflammasome activation: The convergence of multiple signalling pathways on ROS production? . *Nat Rev Immunol*. 10:210–215.
- Ullmann, N., Caggiano, S., and Cutrera, R. (2015). Salbutamol and around. *Italian Journal of Pediatric*. 41:A74.
- Valero, N., Mosquera, J., Anez, G., Levy, A., Marcucci, R., and Melchor, D.M. (2013). Differential oxidative stress Induced by dengue virus in monocytes from human neonates, adult and elderly individuals. *PLoS ONE*. 8(9):73221.
- Vani, G., Anbarasi, K. And Shyamaladevi, C.S. (2015). Bacoside A: Role in Cigarette Smoking Induced Changes in Brain. *Evidence-Based Complementary and Alternative Medicine*.
- Vardavas, C.I., Anagnostopoulos, N., Kougias, M., Evangelopoulou, V., Connolly, G.N., and Behrakis, P.K. (2012). Short-term pulmonary effects of using an electronic cigarette: impact on respiratory flow resistance, impedance, and exhaled nitric oxide. *Chest*. 141:1400–1406.
- Volinsky, R. and Kinnunen, P.K.J. (2013). Oxidized phosphatidylcholines in membrane-level cellular signaling: from biophysics to physiology and molecular pathology. *FEBS Journal*. 280(12):2806–2816.
- Vouldoukis I., Conti M., Krauss P , Kamate C, Blazquez S , Tefit M., Mazier D. , Calenda A. and Dugas B. (2014). Supplementation with Gliadin-combined Plant Superoxide Dismutase Extract Promotes Antioxidant Defences and Protects Against Oxidative Stress. *Phytotherapy Research*. 18 : 957 – 962.

- Vu, A.T., Taylor, K.M., Holman, M.R., Ding, Y.S., Hearn, B. and Watson, C.H. (2015). Polycyclic Aromatic Hydrocarbons in the mainstream Smoke of Popular U.S. Cigarettes. *Chem Res Toxicol.* 28(8):1616-1626.
- Wang M., Kim SH., Monticone RE. and Lakatta EG. (2015). Matrix Metalloproteinases Promote Arterial Remodeling in Aging, Hypertension, and Atherosclerosis. *Hypertension.* 64(4):698-703.
- Wang Y., Chen Q., Zhang Z., Jiang F., Meng X. and Yan H. (2015). Interleukin-10 overexpression improves the function of endothelial progenitor cells stimulated with TNF- $\alpha$  through the activation of the STAT3 signaling pathway. *International Journal of Molecular Medicine.* 35(2):471-477.
- Wang, A., Kubo, J., Luo, J., Desai, M., Hedlin, H., Henderson, M., Chlebowski, R., Tindle, H., Chen, C., Gomez, S., Manson, J.E., Schwartz, A.G., Wactawski-Wende, J., Cote, M., Patel, M.I., Stefanick, M.L., Wakelee, H.A. (2015). Active and passive smoking in relation to lung cancer incidence in the Women's Health Initiative Observational Study prospective cohort. *Ann Oncol, NCBI.* 26(1):221-30.
- Wang, J., Yang, H., Shi, H., Zhou, J., Bai, R., Zhang, M., and Jin, T. (2017). Nitrate and Nitrite Promote Formation of Tobacco-Specific Nitrosamines via Nitrogen Oxides Intermediates during Postcured Storage under Warm Temperature. *Journal of Chemistry.* 1-10
- Weidinger A. and Kozlov A.V. (2015). Biological Activities of Reactive Oxygen and Nitrogen Species: Oxidative Stress versus Signal Transduction. *Biomolecules.* 5 : 472 – 484
- Weidinger, A. and Kozlov, A.V. (2015). Biological Activities of Reactive Oxygen and Nitrogen Species: Oxidative Stress versus Signal Transduction. *Biomolecules.* 5 : 472 – 484.
- Weiss, E.S. and Schaible, U.E. (2015). Macrophage Defense Mechanisms Against Intracellular Bacteria. *Immunol Rev.* 264(1):182-203.
- West, A.P., Brodsky I.E., Rahner, C., Woo, D.K., Erdjument-Bromage, H., Tempst, P., Walsh, M.C., Choi, Y., Shadel, G.S. and Ghosh, S. (2011). TLR signalling augments macrophage bactericidal activity through mitochondrial ROS. *Nature.* 472:476–480.
- Widjaja, N.M.R. And Suharsono. (2011). Penanganan dan Perlakuan Hewan Coba. Aplikasi Etik dan Bioteknologi pada Hewan Coba. *Fakultas Kedokteran Hewan dan IBIKK TDD, C* Lembaga Penyakit Tropis Unair.

- Winarsi, H. 2010. *Antioksidan Alami & Radikal Bebas. Potensi dan Aplikasinya dalam Kesehatan*. Cetakan ke-4. Yogyakarta : Penerbit Kanisius. hal : 12-15,19,29-36,86-106.
- Wolfgang, D., Karl, O., and Wilfried, R., (2014). Oxidative stress and free radicals in COPD – implications and relevance for treatment. *Int J Chron Obstruct Pulmon Dis, NCBI*. 2014; 9: 1207–1224.
- Wolonciej M., Milewska E. and Roszkowska-Jakimiec W. (2016). Trace element as an activator of antioxidant enzymes. *Postepy Hig Med Dosw*. 70(0):1483-1498.
- Wynn TA. (2008). Cellular and molecular mechanisms of fibrosis. *J. Pathol*. 214(2):199-210.
- Yang, J., Zhang, L. and Yu, C. (2014). Monocyte and Macrophage Differentiation Circulation Inflammatory Monocyte As Biomarker For Inflammatory Disease. *J. ListBiomrark Resv*. 2(1).
- Yin, H., Xu, L., and Porter, N.A. (2011). Free radical lipid peroxidation: mechanisms and analysis. *Chemical Reviews*. 111(10):5944–5972.
- Yoshimura A., Wakabayashi Y. and Mori T. (2010). Cellular and molecular basis for the regulation of inflammation by TGF- $\beta$ . *The Journal of Biochemistry*. 147(6):781–792.
- Younus, H. (2018). Therapeutic potentials of superoxide dismutase. *International Journal of Health Sciences*. 12(3):88-93.
- Zablocki, R.W., Edland, S.D., Myers, M.G., Strong, D.R., Hofstetter, C.R. and Al-Delaimy, W.K. (2014). Smoking ban policies and their influence on smoking behaviors among current California smokers: a population-based study. *Prev Med*. 59:73–78.
- Zhang J. and Bai C. (2017). Elevated Serum Interleukin-8 Level as a Preferable Biomarker for Identifying Uncontrolled Asthma and Glucocorticosteroid Responsiveness. *Tanaffos*. 16(4):260-269.
- Zhang, F., Wang, H., Wang, X., Jiang, G., Liu, H., Zhang, G., Wang, H., Fang, R., Bu, X., Cai, S. and Du, J. (2016). TGF- $\beta$  induced M2-like macrophage polarization via SNAIL-mediated suppression of pro-inflammatory phenotype. 7(32):52294-306.
- Zhang, L., Jin, Y., Huang, M. and Penning, T.M. (2012). The role of human aldo-keto reductases in the metabolic activation and detoxication of polycyclic aromatic hydrocarbons: interconversion of PAH catechols and PAH o-quinones. *Frontiers in Pharmacology*.

- Zhang, X., Zheng, H., Zhang, H., Ma, W., Wang, F., Liu, C., and He, S. (2011). Increased interleukin (IL)-8 and decreased IL-17 production in chronic obstructive pulmonary disease (COPD) provoked by cigarette smoke. *Cytokine*. 56(3):717-25.
- Zhao, J., Zhang, Y., Sisler, J.D., Shaffer, J., Leonard, S.S., Morris, A.M., Qian, Y., Bello, D. and Demokritou, P. (2018). Assessment of reactive oxygen species generated by electronic cigarettes using acellular and cellular approaches. *Journal of Hazardous Materials*. 344:549-557.