



DAFTAR PUSTAKA

- Agrawal, S. 2014. Late Effects of Cancer Treatment in Breast Cancer Survivors. *South Asian journal of cancer*, 3(2):112.
- Alamsyah, F., Ajrina, I.N., Dewi, F.N.A., Iskandriati, D., Prabandari, S.A. and Taruno, W.P. 2015. Antiproliferative Effect of Electric Fields on Breast Tumor Cells In Vitro and In Vivo. *Indonesian Journal of Cancer Chemoprevention*, 6(3):71-77.
- Alamsyah, F., Pratiwi, R., Firdausi, N., Pello, J.I.M., Nugraheni, S.E.D., Fadhlurrahman, A.G., Nurhidayat, L. and Taruno, W.P. 2021. Cytotoxic T cells Response with Decreased CD4/CD8 Ratio during Mammary tumors Inhibition in Rats Induced by Non-contact Electric Fields. *F1000Research*, 10(35):35.
- Androutsopoulos, V.P., Tsatsakis, A.M. and Spandidos, D.A. 2009. Cytochrome P450 CYP1A1: wider roles in cancer progression and prevention, *BMC Cancer*. 9:187.
- Antara, N. 2020. Ekspresi Gen terkait Fungsi Makrofag Jaringan Tumor Payudara Tikus (*Rattus norvegicus* Berkenhout, 1769) dengan Perlakuan Terapi Medan Listrik Statis Frekuensi Menengah dan Intensitas Rendah. *Tesis. Universitas Gadjah Mada*.
- Aribowo, D. and Hamzah, H. 2016. Analisa Desain Sensor Electrical Field Detector (EFD). *Setrum: Sistem Kendali-Tenaga-elektronika-telekomunikasi-komputer*, 3(1):1-7.
- Barber, R.D., D.W. Harmer, R.A. Coleman, B.J. Clark. 2005. GAPDH as a housekeeping gene: analysis of GAPDH mRNA expression in a panel of 72 human tissues. *Physiological Genomics*. 21: 389–395.
- Borges da Silva, H., Fonseca, R., Pereira, R.M., Cassado, A.D.A., Álvarez, J.M. and D’Império Lima, M.R. 2015. Splenic Macrophage Subsets and their Function during Blood-borne Infections. *Frontiers in immunology*, 6:480.
- Brower, M., Grace, M., Kotz, C.M. and Koya, V. 2015. Comparative Analysis of Growth Characteristics of Sprague Dawley Rats obtained from Different Sources. *Laboratory animal research*, 31(4):166-173.
- Canton, M., Sánchez-Rodríguez, R., Spera, I., Venegas, F.C., Favia, M., Viola, A. and Castegna, A. 2021. Reactive oxygen species in macrophages: sources and targets. *Frontiers in Immunology*, 12.
- Cavalcanti, Y.V.N., Brelaz, M.C.A., Neves, J.K.D.A.L., Ferraz, J.C. and Pereira, V.R.A. 2012. Role of TNF-alpha, IFN-gamma, and IL-10 in the development of pulmonary tuberculosis. *Pulmonary medicine*, 2012.
- Cetre, C., Cocude, C., Pierrot, C., Godin, C., Capron, A., Capron, M., & Khalife, J. 1998. In vivo expression of cytokine mRNA in rats infected with *Schistosoma mansoni*. *Parasite immunology*, 20(3).
- Dokka, S., Shi, X., Leonard, S., Wang, L., Castranova, V. and Rojanasakul, Y. 2001. Interleukin-10-mediated inhibition of free radical generation in macrophages. *American Journal of Physiology-Lung Cellular and Molecular Physiology*, 280(6): L1196-L1202.
- Ewertz, M. and Jensen, A.B. 2011. Late effects of Breast Cancer Treatment and Potentials for Rehabilitation. *Acta Oncologica*, 50(2):187-193.



- Fujimoto, S., Mochizuki, K., Shimada, M., Murayama, Y., & Goda, T. 2008. Variation in gene expression of inflammatory cytokines in leukocyte-derived cells of high-fat-diet-induced insulin-resistant rats. *Bioscience, Biotechnology and Biochemistry*, 72(10), 2572–2579.
- Fujiyama, S., Nakahashi-Oda, C., Abe, F., Wang, Y., Sato, K. and Shibuya, A. 2019. Identification and Isolation of Splenic Tissue-Resident Macrophage Sub-Populations by Flow Cytometry. *International immunology*, 31(1):51-56.
- Gabriel, C. 2000. *The Dielectric Properties of Tissues*. In: Klauenberg, B.J., Miklavčič, D. (eds) *Radio Frequency Radiation Dosimetry and Its Relationship to the Biological Effects of Electromagnetic Fields*. NATO Science Series, vol 82. Pp 75-84. Springer, Dordrecht.
- Gautama, W. 2022. Breast Cancer in Indonesia in 2022: 30 Years of Marching in Place. *Indonesian Journal of Cancer*, 16(1):1-2.
- Gong, D., Shi, W., Yi, S.J., Chen, H., Groffen, J. and Heisterkamp, N. 2012. TGF β signaling plays a critical role in promoting alternative macrophage activation. *BMC immunology*, 13(1): 1-10.
- Hottinger, A.F., Pacheco, P. and Stupp, R. 2016. Tumor treating fields: a novel treatment modality and its use in brain tumors. *Neuro-oncology*, 18(10): 1338-1349.
- Hussein, M., Awwad, F., Jithin, D., El Hasasna, H., Athamneh, K. and Iratni, R. 2019. Breast cancer cells exhibits specific dielectric signature in vitro using the open-ended coaxial probe technique from 200 MHz to 13.6 GHz. *Scientific reports*, 9(1):1-8.
- Irfan, M. 2021. Level Ekspresi mRNA Gen KLRK1, IL-2 dan IL-10 Jaringan Tumor Payudara Tikus (*Rattus Norvegicus* Berkenhout, 1769) dengan Perlakuan Paparan Medan Listrik Statis. *Skripsi. Universitas Gadjah Mada*.
- Iyer, S.S. and Cheng, G. 2012. Role of interleukin 10 transcriptional regulation in inflammation and autoimmune disease. *Critical Reviews™ in Immunology*, 32(1).
- Jang, D.I., Lee, A.H., Shin, H.Y., Song, H.R., Park, J.H., Kang, T.B., Lee, S.R. and Yang, S.H. 2021. The role of tumor necrosis factor alpha (TNF- α) in autoimmune disease and current TNF- α inhibitors in therapeutics. *International journal of molecular sciences*, 22(5): 2719.
- Kany, S., Vollrath, J.T. and Relja, B. 2019. Cytokines in Inflammatory Disease. *International journal of molecular sciences*, 20(23):6008.
- Kirson, E.D., Dbalý, V., Tovaryš, F., Vymazal, J., Soustiel, J.F., Itzhaki, A., Mordechovich, D., Steinberg-Shapira, S., Gurvich, Z., Schneiderman, R. and Wasserman, Y. 2007. Alternating Electric Fields Arrest Cell Proliferation in Animal Tumor Models and Human Brain Tumors. *Proceedings of the National Academy of Sciences*, 104(24):10152-10157.
- Komai, T., Inoue, M., Okamura, T., Morita, K., Iwasaki, Y., Sumitomo, S., Shoda, H., Yamamoto, K. and Fujio, K. 2018. Transforming growth factor- β and interleukin-10 synergistically regulate humoral immunity via modulating metabolic signals. *Frontiers in immunology*, 9: 1364.



- Kuwahara, Y., Nozaki, A. and Fujii, K. 2020. Large Scale Analysis of Complex Permittivity of Breast Cancer in Microwave Band. *Advances in Breast Cancer Research*, 9(04):101.
- Lee, Y.J., Cho, J.M., Sai, S., Oh, J.Y., Park, J., Oh, S.J., Park, M., Kwon, J., Shin, U.S., Baek, J.H. and Lim, S.H. 2019. 5-Fluorouracil as a tumor-treating field-sensitizer in colon cancer therapy. *Cancers*, 11(12): 1999.
- Li, L., Wei, W., Li, Z., Chen, H., Li, Y., Jiang, W., Chen, W., Kong, G., Yang, J. and Li, Z. 2018. The Spleen Promotes the Secretion of CCL2 and Supports an M1 Dominant Phenotype in Hepatic Macrophages during Liver Fibrosis. *Cellular Physiology and Biochemistry*, 51(2):557-574.
- Miyata, M., Furukawa, M., Takahashi, K., Gonzalez, F.J. and Yamazoe, Y. 2001. Mechanism of 7, 12-Dimethylbenz [a]Anthracene-Induced Immunotoxicity: Role of Metabolic Activation at the Target Organ. *The Japanese Journal of Pharmacology*, 86(3):302-309.
- Momenimovahed, Z. and Salehiniya, H. 2019. Epidemiological Characteristics of and Risk Factors for Breast Cancer in the World. *Breast Cancer: Targets and Therapy*, 11:151.
- Moo, T.A., Sanford, R., Dang, C. and Morrow, M. 2018. Overview of Breast Cancer Therapy. *PET clinics*, 13(3):339-354.
- Murray, P. J., Wynn, T. A. (2011) Protective and pathogenic functions of macrophage subsets. *Nat. Rev. Immunol.* 11:723–737.
- Mutebi, M., Anderson, B.O., Duggan, C., Adebamowo, C., Agarwal, G., Ali, Z., Bird, P., Bourque, J.M., DeBoer, R., Gebrim, L.H. and Masetti, R. 2020. Breast Cancer Treatment: A Phased Approach to Implementation. *Cancer*, 126:2365-2378.
- Nielsen, S.R. and Schmid, M.C. 2017. Macrophages as Key Drivers of Cancer Progression and Metastasis. *Mediators of inflammation*, 2017.
- Nugroho, S.W., Fauziyah, K.R., Sajuthi, D. and Darusman, H.S. 2018. Profil Tekanan Darah Normal Tikus Putih (*Rattus norvegicus*) Galur Wistar dan Sprague-Dawley. *Acta VETERINARIA Indonesiana*, 6(2):32-37.
- Palti, Y. 2007. *Method for selectively destroying dividing cells*. U.S. Patent Application 11/470,405.
- Parameswaran, N. and Patial, S. 2010. Tumor Necrosis Factor- α Signaling in Macrophages. *Critical Reviews™ in Eukaryotic Gene Expression*, 20(2).
- Pratiwi, R., Alamsyah, F., Mubarika, S., Sunarti, Widyarini, S., Airin, C.N., Tunjung, W.A.S., Sholihah, E.N., Fitria, L., Hidayati, L., Nurhidayat, L., Fadil, Saputra, A., Ghita, A., Sugiyanto. 2018. Uji praklinis *Electro Capacitive Cancer Therapy* (ECCT) pada tikus model kanker payudara dan uji klinis fase I pada sukarelawan sehat. *Laporan Akhir Penelitian Program Pengembangan Teknologi Industri Ristekdikti 2018*.
- Pratiwi, R., Antara, N.Y., Fadliansyah, L.G., Ardiansyah, S.A., Nurhidayat, L., Sholikhah, E.N., Sunarti, S. 2019. CCL2 and IL18 Expressions May Associate with the Anti-Proliferative Effect of Noncontact Electro Capacitive Cancer Therapy in Vivo. *F1000Research*, 8: 1-14.
- Sanjabi, S., Zenewicz, L.A., Kamanaka, M. and Flavell, R.A. 2009. Anti-inflammatory and pro-inflammatory roles of TGF- β , IL-10, and IL-22 in



- immunity and autoimmunity. *Current opinion in pharmacology*, 9(4): 447-453.
- Sari, S.R. 2019. Profil Hematologis Mencit (*Mus musculus* Linnaeus, 1758) Galur Swiss dengan Induksi 7,12-Dimethylbenz[α]anthracene dan Terapi Medan Listrik Statis. *Skripsi. Universitas Gadjah Mada*.
- Septianti, C.D. 2018. Pengaruh Medan Listrik Statis terhadap Profil Hematologis Tikus (*Rattus norvergicus* Berkenhout, 1769) dengan Induksi 7,12-Dimethylbenz[α]anthracene. *Skripsi. Universitas Gadjah Mada*.
- Sharify, A., Mahmoudi, M., Izad, M.H., Hosseini, M.J. and Sharify, M. 2007. Effect of acute pain on splenic NK cell activity, lymphocyte proliferation and cytokine production activities. *Immunopharmacology and Immunotoxicology*, 29(3-4): 465-476.
- Silva, L.B., dos Santos Neto, A.P., Maia, S.M., dos Santos Guimarães, C., Quidute, I.L., Carvalho, A.D.A., Júnior, S.A. and Leão, J.C. 2019. The Role of TNF- α as a Proinflammatory Cytokine in Pathological Processes. *The Open Dentistry Journal*, 13(1).
- Song, Z. Q., Li, X., Wang, Y. K., Du, Z. Q., & Yang, C. X. 2017. DMBA acts on cumulus cells to desynchronize nuclear and cytoplasmic maturation of pig oocytes. *Scientific reports*, 7(1): 1-11.
- Storz, P. 2017. KRas, ROS and the initiation of pancreatic cancer. *Small GTPases*, 8(1): 38-42.
- Sullivan, K.E., Reddy, A.B.M., Dietzmann, K., Suriano, A.R., Koceda, V.P., Stewart, M. and Bhatia, M. 2007. Epigenetic regulation of tumor necrosis factor alpha. *Molecular and cellular biology*, 27(14): 5147-5160.
- Sun, Y.S., Zhao, Z., Yang, Z.N., Xu, F., Lu, H.J., Zhu, Z.Y., Shi, W., Jiang, J., Yao, P.P. and Zhu, H.P. 2017. Risk Factors and Preventions of Breast Cancer. *International journal of biological sciences*, 13(11):1387.
- Supardi, R. W. 2021. Level Ekspresi Gen IL-2R, IFN- γ dan TGF- β pada Jaringan Tumor Payudara Tikus (*Rattus Norvegicus* Berkenhout, 1769) dengan Perlakuan Paparan Medan Listrik Statis Frekuensi Menengah dan Intensitas Rendah. *Skripsi. Universitas Gadjah Mada*.
- Taki, F. A., Abdel-Rahman, A. A., & Zhang, B. 2014. A comprehensive approach to identify reliable reference gene candidates to investigate the link between alcoholism and endocrinology in Sprague-Dawley rats. *PloS One*, 9(5), e94311.
- Tugal, D., Liao, X. and Jain, M.K. 2013. Transcriptional Control of Macrophage Polarization. *Arteriosclerosis, thrombosis, and vascular biology*, 33(6):1135-1144.
- WHO. 2021. Breast Cancer. <https://www.who.int/news-room/item/03-02-2021-breast-cancer-now-most-common-form-of-cancer-who-taking-action>. Di akses tanggal 20 Maret 2021.
- Wibowo, A.E., Sriningsih, S., Wuyung, P.E. and Ranasasmita, R. 2010. The Influence of DMBA (7, 12-dimethylbenz-[a] anthracene) Regimen In The Development of Mammea Carcinogénesis on Sprague Dawley Female Rat. *Indonesian Journal of Cancer Chemoprevention*, 1(1): 60-66.



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Ekspresi Relatif mRNA TNF-alfa, TGF-beta, dan IL-10 Limpa Tikus (*Rattus norvegicus* Berkenhout, 1769)

Dengan dan Tanpa Tumor Payudara Setelah Paparan Medan Listrik Statis Frekuensi Menengah ANYSAH NUR FAUZIYAH, Dra. Rarastoeti Pratiwi, M.Sc., Ph.D.

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- Wiehe, R.S., B. Gole, L. Chatre, P. Walther, E. Calzia, M. Ricchetti, L. Wiesmuller. 2018. Endonuclease G promotes mitochondrial genome cleavage and replication. *Oncotarget*. 9(26): 18309–18326
- Wu, C., Hua, Q. and Zheng, L. 2020. Generation of Myeloid Cells in Cancer: The spleen matters. *Frontiers in Immunology*, 11.
- Yang, M. and Brackenbury, W.J. 2013. Membrane potential and cancer progression. *Frontiers in physiology*, 4:185.
- Zhang, J.M. and An, J. 2007. Cytokines, Inflammation and Pain. *International anesthesiology clinics*, 45(2):27.
- Zhao, L., Chen, J., Liu, L., Gao, J., Guo, B. and Zhu, B. 2015. Essential role of TNF-alpha in development of spleen fibroblastic reticular cells. *Cellular Immunology*, 293(2): 130-136.