

## DAFTAR PUSTAKA

- Abbas, Z. S., Shulaiman, G. M., Jabir, M. S., Mohammed, S. A. A., Khan, R. A., Mohammed, H. A., dan Al-Subaiyel, A. (2022) 'Galangin/ $\beta$ -Cyclodextrin Inclusion Complex as a Drug-Delivery System for Improved Solubility and Biocompatibility in Breast Cancer Treatment', *Molecules*, 27(14), pp. 1-25. doi: doi.org/10.3390/molecules27144521.
- Afriza, D., Suriyah, W. H., dan Ichwan, S. J. A. (2018) 'In Silico Analysis of Molecular Interactions Between The Anti-Apoptotic Protein Survivin and Dentatin, Nordentatin, and Quercetin', *Journal of Physics: Conference Series*, 1073(3), p. 032001. doi: 10.1088/1742-6596/1073/3/032001.
- Ahmad, A., Sayed, A., Ginnebaugh, K. R., Sharma, V., Suri, A., Saraph, A., Padhye, S., dan Sarkar, F. H. (2015) 'Molecular Docking and Inhibition of Matrix Metalloproteinase-2 by Novel Difluorinatedbenzylidene Curcumin Analog', *American Journal of Translational Research*, 7(2), pp. 298–308. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4399093/> (Accessed: 22 January 2024).
- Alonso, H., Bliznyuk, A. & Gready, J. (2006) Combining docking and molecular dynamic simulations in drug design. *Medicinal Research Reviews*, 26(5), pp. 531-68.
- Bacanli, M., Bařaran, A. A. dan Bařaran, N. (2018) 'Galangin as a Plant Phenolic and Usage in Health and Disease', in *Polyphenols: Prevention and Treatment of Human Disease*. Elsevier, pp. 433–438. doi: 10.1016/B978-0-12-813008-7.00034-5.
- Balasubramanian, B., Venkatraman, S., Myint, K. Z., Krobthong, S., Wongtrakoongate, P., Sripa, J., Rattanasinganchan, P., Metheenukul, P., dan Tohtong R. (2022) 'In Silico Target Identification of Galangin, as an Herbal Flavonoid Against Cholangiocarcinoma', *Molecules*, 27(14), p. 4664. doi: 10.3390/molecules27144664.
- Bayat, A. (2002) 'Bioinformatics', *BMJ: British Medical Journal*, 324(7344), pp. 1018–1022. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1122955/> (Accessed: 17 January 2023)
- Bhullar, K. S., Lagaron, N. O., McGowan, E. M., Parmar, I., Jha, A., Hubbard, B. P., dan Rupasinghe, H. P. V. (2018). 'Kinase-Targeted Cancer Therapies: Progress, Challenge, and Future Directions', *Molecular Cancer*, 17, p. 48. doi: 10.1186/s12943-018-0804-2.
- Burmeister, C. A., Khan, S. F., Schafer, G., Mbatani, N., Adams, T., Moodley, J., dan Prince, S. (2022) 'Cervical cancer therapies: Current challenges and future perspectives', *Tumour Virus Research*, 13, p. 200238. doi: 10.1016/j.tvr.2022.200238.

- Cava, C. dan Castiglioni, I. (2020) 'Integration of Molecular Docking and In Vitro Studies: A Powerful Approach for Drug Discovery in Breast Cancer', *Applied Sciences*, 10(19), p. 6981. doi: 10.3390/app10196981.
- Chen, C., Zhao, S., Karnad, A., dan Freeman, J. W. (2018) 'The Biology and Role of CD44 in Cancer Progression: Therapeutic Implications', *Journal of Hematology & Oncology*, 11(1), p. 64. doi: 10.1186/s13045-018-0605-5.
- Chen, L., Qing, J., Xiao, Y., Huang, X., Chi, Y., dan Chen, Z. (2022) 'TIM-1 Promotes Proliferation and Metastasis, and Inhibits Apoptosis, in Cervical Cancer Through the PI3K/AKT/p53 Pathway', *BMC Cancer*, 22(1), p. 370. doi: 10.1186/s12885-022-09386-7.
- Chen, X., Lin, L., Wu., Q., Li, S., Wang, H., Sun, Y., (2023) 'Tumor Necrosis Factor- $\alpha$  Promotes the Tumorigenesis, Lymphangiogenesis, and Lymphatic Metastasis in Cervical Cancer via Activating VEGFC-Mediated AKT and ERK Pathways', *Mediators of Inflammation*, 2023, p. e5679966. doi: 10.1155/2023/5679966.
- Cirone, M. dan D'Orazi, G. (2023) 'NRF2 in Cancer: Cross-Talk with Oncogenic Pathways and Involvement in Gammaherpesvirus-Driven Carcinogenesis', *International Journal of Molecular Sciences*, 24(1), p. 595. doi: 10.3390/ijms24010595.
- 'Database resources of the National Center for Biotechnology Information' (2015) *Nucleic Acids Research*, 43(Database issue), pp. D6–D17. doi: 10.1093/nar/gku1130.
- Dnyandev, K. M., Galave V. B., Kulkarni V. C., Menkudale A. C., dan Otari K. V. (2021) 'A Review on Molecular Docking', *International Research Journal of Pure and Applied Chemistry*, pp. 60–68. doi: 10.9734/irjpac/2021/v22i330396.
- George, I. A., Richa, C., Dhawale, R. E., Roshini, I., Limaye, S., Sankaranarayanan, R., Venkataramanan, R., dan Kumar, P. (2022) 'Insights into therapy resistance in cervical cancer', *Advances in Cancer Biology - Metastasis*, 6, p. 100074. doi: 10.1016/j.adcanc.2022.100074.
- Gerriets, V. dan Kasi, A. (2023) 'Bevacizumab', in *StatPearls*. Treasure Island (FL): StatPearls Publishing. Available at: <http://www.ncbi.nlm.nih.gov/books/NBK482126/> (Accessed: 26 July 2023).
- Globocan. (2022). *Cancer Today*. Tersedia di: <https://gco.iarc.fr/> (Diakses: 20 Mei 2022).
- Gutiérrez-Hoya, A., Zerecero-Carreón, O., Valle-Mendiola, A., Moreno-Lafont, M., López-Santiago, R., Weiss-Steider, B., dan Soto-Cruz, I. (2019) 'Cervical Cancer Cells Express Markers Associated with

- Immunosurveillance’, *Journal of Immunology Research*, 2019, p. e1242979. doi: 10.1155/2019/1242979.
- Ha, T. K., Kim, M.E., Yoon, J. H., Bae, S. J., Yeom, J., dan Lee, J. S. (2013) ‘Galangin Induces Human Colon Cancer Cell Death Via The Mitochondrial Dysfunction and Caspase-Dependent Pathway’, *Experimental Biology and Medicine*, 238(9), pp. 1047–1054. doi: 10.1177/1535370213497882.
- Han, Z. dan Lu, Z.-R. (2017) ‘Targeting Fibronectin for Cancer Imaging and Therapy’, *Journal of materials chemistry. B, Materials for biology and medicine*, 5(4), pp. 639–654. doi: 10.1039/C6TB02008A.
- Hasnaa, N. R., Manalu, R. T., dan Subaryanti (2022) ‘Molecular Docking of Turmeric Active Compounds (*Curcuma longa* L.) Against Main Protease in Covid-19 Disease’, *East Asian Journal of Multidisciplinary Research*, 1(3), pp. 353–364. doi: 10.55927/eajmr.v1i3.101.
- Hemmat, N., Mokhtarzadeh, A., Aghazadeh, M., Jadidi-Niaragh, F., Baradaran, B., dan Bannazadeh Baghi, H. (2020) ‘Role of microRNAs in epidermal growth factor receptor signaling pathway in cervical cancer’, *Molecular Biology Reports*, 47(6), pp. 4553–4568. doi: 10.1007/s11033-020-05494-4.
- Heo, M. Y., Sohn, S. J. dan Au, W. W. (2001) ‘Anti-Genotoxicity of Galangin as A Cancer Chemopreventive Agent Candidate’, *Mutation Research/Reviews in Mutation Research*, 488(2), pp. 135–150. doi: 10.1016/S1383-5742(01)00054-0.
- Hermawan, A., Ikawati, M., Khumaira A., Putri H., Jenri R. I., Angraini S. M., dan Muflikhasari H. A. (2021) ‘Bioinformatics and In Vitro Studies Reveal the Importance of p53, PPAR $\gamma$  and Notch Signaling Pathway in Inhibition of Breast Cancer Stem Cells by Hesperetin’, *Advanced Pharmaceutical Bulletin*, 11(2), pp. 351–360. doi: 10.34172/apb.2021.033.
- Hermawan, A., Putri, H., Naufa H., dan Muthi I. (2021) ‘Integrative Bioinformatics Study of Tangeretin Potential Targets for Preventing Metastatic Breast Cancer’, *Evidence-based Complementary and Alternative Medicine : eCAM*, 2021, p. 2234554. doi: 10.1155/2021/2234554.
- Huang, H., Chen, A. Y., Ye, X., Guan, R., Rankin, G. O., dan Chen, Y. C. (2020) ‘Galangin, a Flavonoid from Lesser Galangal, Induced Apoptosis via p53-Dependent Pathway in Ovarian Cancer Cells’, *Molecules*, 25(7), p. 1579. doi: 10.3390/molecules25071579.
- Ideker T, dan Sharan R. (2008). Protein Networks in Disease. *Genome Res.* 18(4), pp. 644-652. doi: 10.1101/gr.071852
- Januar, H. I., Dewi, A. S., Marraskuranto, E., dan Wikanta, T. (2012) ‘In Silico Study of Fucoxanthin as a Tumor Cytotoxic Agent’, *Journal of Pharmacy & Bioallied Sciences*, 4(1), pp. 56–59. doi: 10.4103/0975-7406.92733.

- Johnson, D.E., O'Keefe, R.A. dan Grandis, J.R. (2018) 'Targeting The IL6/JAK/STAT3 Signalling Axis in Cancer', *Nature Reviews Clinical Oncology*, 15(4), pp. 234–248. doi : 10.1038/nrclinonc.2018.8.
- Ke, J., Gu, C., Zhang, H., Liu, Y., Zhang, W., Rao, H., Li, S., dan Wu, F. (2021) 'Nucleolin Promotes Cisplatin Resistance in Cervical Cancer by the YB1-MDR1 Pathway', *Journal of Oncology*, 2021, p. 9992218. doi: 10.1155/2021/9992218.
- Kuchipudi, S. V. (2015) 'The Complex Role of STAT3 in Viral Infections', *Journal of Immunology Research*, 2015, p. 272359. doi: 10.1155/2015/272359.
- Kuhn, M., von Mering, C., Campillos, M., Jensen, L. J., dan Bork, P. (2008) 'STITCH: Interaction Networks of Chemicals and Proteins', *Nucleic Acids Research*, 36(Database issue), pp. D684–D688. doi: 10.1093/nar/gkm795.
- Kumar, R. dan Tiku, A. B. (2018) 'Galangin induces cell death by modulating the expression of glyoxalase-1 and Nrf-2 in HeLa cells', *Chemico-Biological Interactions*, 279, pp. 1–9. doi: 10.1016/j.cbi.2017.11.001.
- Lorusso, D., Petrelli, F., Coinu, A., Raspagliesi, F., dan Barni, S. (2014) 'A Systematic Review Comparing Cisplatin and Carboplatin Plus Paclitaxel-Based Chemotherapy For Recurrent Or Metastatic Cervical Cancer', *Gynecologic Oncology*, 133(1), pp. 117–123. doi: 10.1016/j.ygyno.2014.01.042.
- Luo, F., Haung, Y., Li, Y., Zhao, X., Xie, Y., Zhang, Q., Mei, J., dan Liu, X. (2021) 'A Narrative Review of The Relationship Between TGF-B Signaling and Gynecological Malignant Tumor', *Annals of Translational Medicine*, 9(20), p. 1601. doi: 10.21037/atm-21-4879.
- Martorana, F., Motta, G., Pavone, G., Motta, L., Stella, S., Vitale, S. R., Manzella, L., dan Vigneri, P. (2021) 'AKT Inhibitors: New Weapons in the Fight Against Breast Cancer?', *Frontiers in Pharmacology*, 12, p. 662232. doi: 10.3389/fphar.2021.662232.
- Miao, J.-W., Liu, L.-J. dan Huang, J. (2014) 'Interleukin-6-induced epithelial-mesenchymal transition through signal transducer and activator of transcription 3 in human cervical carcinoma', *International Journal of Oncology*, 45(1), pp. 165–176. doi: 10.3892/ijo.2014.2422.
- Mirza, Z. dan Karim, S. (2023) 'Structure-Based Profiling of Potential Phytomolecules with AKT1 a Key Cancer Drug Target', *Molecules*, 28(6), p. 2597. doi: 10.3390/molecules28062597.
- Muttaqin, F. Z. (2019) 'Molecular Docking and Molecular Dynamic Studies of Stilbene Derivative Compounds as Sirtuin-3 (Sirt3) Histone Deacetylase

- Inhibitor on Melanoma Skin Cancer and Their Toxicities Prediction', *Journal of Pharmacopolium*, 2(2). doi: 10.36465/jop.v2i2.489.
- Nagarajan, S., Prabu, M. dan Sivasankari, B. (2016) 'Bioinformatics in Drug Discovery a Revi', *International Journal of Research in Arts and Science*, 2, pp. 11–13. doi: 10.9756/IJRAS.8099.
- O'Connell, J., Porter, J., Kroeplien, B., Norman, T., Rapecki, S., Davis, R., McMillan, D., Arakaki, T., Burgin, A., Fox, D., Ceska, T., Lecomte, F., Maloney, A., Vugler, A., Carrington, B., Cossins, B. P. Bourne, T., dan Lawson, A. (2019) 'Small Molecules That Inhibit TNF Signalling by Stabilising an Asymmetric Form of The Trimer', *Nature Communications*, 10(1), p. 5795. doi: 10.1038/s41467-019-13616-1.
- Okunade, K. S. (2020) 'Human papillomavirus and cervical cancer', *Journal of Obstetrics and Gynaecology: The Journal of the Institute of Obstetrics and Gynaecology*, 40(5), pp. 602–608. doi: 10.1080/01443615.2019.1634030.
- Park, J., Choi, J., dan Choi, J. Y. (2021). Network Analysis in Systems Epidemiology. *J Prev Med Public Health*. 54(4). doi: 10.3961/jpmph.21.190.
- Peng J, Zhao, J., Zhao, Y., Wu, P., Gou, L., Fu, S., Chen, P., Lu, Y., dan Yang, L. (2020). Hela Cell-Derived Paclitaxel-Loaded Microparticles Efficiently Inhibit the Growth of Cervical Carcinoma. *Int J Nanomedicine*. 15:6409-6420. <https://doi.org/10.2147/IJN.S246659>.
- PubChem (2022) *Galangin*. Available at: <https://pubchem.ncbi.nlm.nih.gov/compound/5281616> (Diakses: 30 May 2022).
- Ramachandran, D. dan Dörk, T. (2021) 'Genomic Risk Factors for Cervical Cancer', *Cancers*, 13(20), p. 5137. doi: 10.3390/cancers13205137.
- Rampogu, S., Gajula, R. G. dan Lee, K. W. (2021) 'A comprehensive review on chemotherapeutic potential of galangin', *Biomedicine & Pharmacotherapy*, 141, p. 111808. doi: 10.1016/j.biopha.2021.111808.
- Rena, S. R., Nurhidayah, N. dan Rustan, R. (2022) 'Analisis Molecular Docking Senyawa Garcinia Mangostana L Sebagai Kandidat Anti SARS-CoV-2', *Jurnal Fisika Unand*, 11(1), pp. 82–88. doi: 10.25077/jfu.11.1.82-88.2022.
- Rodriguez-Freixinos, V. dan Mackay, H. J. (2015) 'Breaking down the evidence for bevacizumab in advanced cervical cancer: past, present and future', *Gynecologic Oncology Research and Practice*, 2(1), p. 8. doi: 10.1186/s40661-015-0015-0.
- Sarmoko, Pratama, A. H., Choironi, N. A., dan Fareza, M. S. (2023) 'Bioinformatic Study of the Active Compound of Morusin in Mulberry (*Morus alba*) against Breast Cancer', *Indonesian Journal of Cancer*



- Chemoprevention*, 14(1), pp. 60–71. doi: 10.14499/indonesianjcanchemoprev14iss1pp60-71.
- Shannon, P., Markiel, A., Ozier, O., Baliga, N. S., Wang, J. T., Ramage, D., Amin, N., Schwikowski, B., dan Ideker, T. (2003) ‘Cytoscape: A Software Environment for Integrated Models of Biomolecular Interaction Networks’, *Genome Research*, 13(11), pp. 2498–2504. doi: 10.1101/gr.1239303.
- Shukla, S., Qureshi, S., Singh, U., dan Khattri, S. A. (2020) ‘A Study of Matrix Metalloproteinase-2 and Interleukin-18 in Preinvasive and Invasive Lesions of Cancer Cervix’, *Journal of Mid-life Health*, 11(4), p. 236. doi: 10.4103/jmh.JMH\_87\_19.
- Simončič, M. dan Urbič, T. (2018) ‘Hydrogen bonding between hydrides of the upper-right part of the periodic table’, *Chemical physics*, 507, pp. 34–43. doi: 10.1016/j.chemphys.2018.03.036.
- Song, W., Yan, C. Y., Zhou, Q. Q., dan Zhen, L. L. (2017) ‘Galangin Potentiates Human Breast Cancer to Apoptosis Induced by TRAIL Trough Activating AMPK’, *Biomedicine & Pharmacotherapy*, 89, pp. 845-856, doi: 10.1016/j.biopha.2017.01.062.
- Szklarczyk, D., Morris, J. H., Cokk, H., Kuhn, M., Wyder, S., Simonovic, M., Sanots, A., Doncheva, N. T., Roth, A., Bork, P., Jensen, L. J., dan von Mering, C. (2017) ‘The STRING Database in 2017: Quality-Controlled Protein–Protein Association Networks, Made Broadly Accessible’, *Nucleic Acids Research*, 45(Database issue), pp. D362–D368. doi: 10.1093/nar/gkw937.
- Turner, N. C., Oliveira, M., Howell, S. J., dan Dalenc, F. (2023) ‘Capivasertib in Hormone Receptor–Positive Advanced Breast Cancer’, *New England Journal of Medicine*, 388(22), pp. 2058–2070. doi: 10.1056/NEJMoa2214131.
- Tyagi, N., Khare, N., dan Jha, K. A. (2020) ‘Molecular Docking Studies on The Targets of Cervical Cancer (DNMT1) Using Natural Compounds’. *International Journal of Research and Analytical Reviews*. 7(2). pp. 735–740.
- Van de Velde, M., Ebroin, M., Durré, T., Joiret, M., Gillot, L., Blacher, S., Geris, L., Kridelka, F., dan Noel, A. (2021) ‘Tumor exposed-lymphatic endothelial cells promote primary tumor growth via IL6’, *Cancer Letters*, 497, pp. 154–164. doi: 10.1016/j.canlet.2020.10.020.
- Vladilo, G. dan Hassanali, A. (2018) ‘Hydrogen Bonds and Life in the Universe’, *Life*, 8(1), p. 1. doi: 10.3390/life8010001.

- Wang, J., Duncan, D., Shi, Z., dan Zhang, B. (2013) 'WEB-based GEne SeT AnaLysis Toolkit (WebGestalt): update 2013', *Nucleic Acids Research*, 41(Web Server issue), pp. W77–W83. doi: 10.1093/nar/gkt439.
- WHO. (2022) *Cervical Cancer*. Tersedia di: <https://www.who.int/news-room/factsheets/detail/cervicalcancer#:~:text=Overview,%2D%20and%20middle%2Dincome%20countries> (Diakses: 20 Mei 2022)
- Winer, A., Adams, S. dan Mignatti, P. (2018) 'Matrix Metalloproteinase Inhibitors in Cancer Therapy: Turning Past Failures into Future Successes', *Molecular cancer therapeutics*, 17(6), pp. 1147–1155. doi: 10.1158/1535-7163.MCT-17-0646.
- Wongpratate, M., Settheetham-Ishida, W., Phuthong, S., Natphopsuk, S., dan Ishida, T. (2020) 'Genetic Polymorphisms of the Human Cytochrome P450 1A1 (CYP1A1) and Cervical Cancer Susceptibility among Northeast Thai Women', *Asian Pacific Journal of Cancer Prevention : APJCP*, 21(1), pp. 243–248. doi: 10.31557/APJCP.2020.21.1.243.
- Wu, L., Shen, B., Li, J., Zhang, H., Zhang, K., Yang, Y., Zu, Z., Shen, D., dan Luo, M. (2022) 'STAT3 Exerts Pro-Tumor and Anti-Autophagy Roles in Cervical Cancer', *Diagnostic Pathology*, 17(1), p. 13. doi: 10.1186/s13000-021-01182-4.
- Yang, L., Yu, Y., Xiong, Z., Chen, H., Tan, B., dan Hu, H. (2020) 'Downregulation of SEMA4C Inhibit Epithelial-Mesenchymal Transition (EMT) and the Invasion and Metastasis of Cervical Cancer Cells via Inhibiting Transforming Growth Factor-beta 1 (TGF- $\beta$ 1)-Induced Hela cells p38 Mitogen-Activated Protein Kinase (MAPK) Activation', *Medical Science Monitor : International Medical Journal of Experimental and Clinical Research*, 26, pp. e918123-1-e918123-11. doi: 10.12659/MSM.918123.
- Yoshida, K., Suzuki, S., Sakata, J., Utsumi, F., Niimi, K., Yoshikawa, N., Nishino, K., Shibata, K., Kikkawa, F., dan Kajiyama, H. (2018) 'The Upregulated Expression of Vascular Endothelial Growth Factor in Surgically Treated Patients with Recurrent/Radioresistant Cervical Cancer of The Uterus', *Oncology Letters*, 16(1), pp. 515–521. doi: 10.3892/ol.2018.8610.
- Zhao, L., Zhang, Z., Lou, H., Liang, J., Yan, X., Li, W., Xu, Y., dan Ou, R. (2018) 'Exploration of The Molecular Mechanisms of Cervical Cancer Based on mRNA Expression Profiles and Predicted microRNA Interactions', *Oncology Letters*, 15(6), pp. 8965–8972. doi: 10.3892/ol.2018.8494.

- Zhou, Y., Shu, C. dan Huang, Y. (2019) 'Fibronectin promotes cervical cancer tumorigenesis through activating FAK signaling pathway', *Journal of Cellular Biochemistry*, 120(7), pp. 10988–10997. doi: 10.1002/jcb.28282.
- Zhu, D., Ye, M. dan Zhang, W. (2015) 'E6/E7 oncoproteins of high risk HPV-16 upregulate MT1-MMP, MMP-2 and MMP-9 and promote the migration of cervical cancer cells', *International Journal of Clinical and Experimental Pathology*, 8(5), pp. 4981–4989. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4503063/> (Accessed: 18 July 2023).
- Zubair, M. S., Anam, S., Maulan, S., dan Arba, M. (2021) 'In Vitro and In Silico Studies of Quercetin and Daidzin as Selective Anticancer Agents', *Indonesian Journal of Chemistry*, 21(2), pp. 310–317. doi: 10.22146/ijc.53552.

