

DAFTAR PUSTAKA

- Adriani. 2018, 'Prediksi senyawa bioaktif dari tanaman Sanrego (*Lunasia amara Blanco*) sebagai inhibitor enzim siklooksigenase-2 (COX-2) melalui pendekatan molecular docking', *Jurnal Ilmiah Pena*, vol.1, no.1, pp. 6–11.
- Alamri, M.A., Tahir Ul Qamar, M., Mirza, M.U., Bhadane, R., Alqahtani, S.M., Muneer, I., Froeyen, M. & Salo-Ahen, O.M. 2021, 'Pharmacoinformatics and molecular dynamics simulation studies reveal potential covalent and FDA-approved inhibitors of SARS-CoV-2 main protease 3CLpro', *Journal of Biomolecular Structure and Dynamics*, vol.39, no.13, pp. 4936-4948.
- Ali, A-S. H. 2019, 'Galangin and Gold nanoparticles as novel anti-tumor therapy via induction of apoptosis in MCF-7 and AMN-3 cell lines', *Research Journal of Biotechnology*, vol.14, no.1, pp. 307-314
- Ali, M. H. 2016, 'Penapisan virtual Alkaloid imidazole dari spons genus *Leucetta* sebagai inhibitor enzim tyrosinase', *Skripsi*, UIN Syarif Hidayatullah, Jakarta
- Apriani, R. & Abdullah, F.F. 2021, 'Cytotoxic Activity of Ethyl-paramethoxycinnamate from *Kaempferia galanga L.* on A549 Lung Cancer and B16 Melanoma Cancer Cells', *Jurnal Kimia Sains dan Aplikasi*, vol.24, no.1, pp. 22-28.
- Apriani, F. 2015, 'Studi Penambatan Molekul Senyawa-Senyawa Amidasi Etil Para Metoksisinamat Pada Peroxisome Proliferator-Activated Receptor-Gamma (PPAR γ)', *Skripsi*, UIN Syarif Hidayatullah, Jakarta.
- Anisa, D.N., Anwar, C. & Afriyani, H. 2020, 'Sintesis Senyawa Analog Kurkumin Berbahan Dasar Veratraldehida Dengan Metode Ultrasound', *Analit: Analytical and Environmental Chemistry*, vol.5, no.1, pp. 74-81.
- Arfi, A.S., Lestari, R.D. & Damayanti, D.S. 2020, 'Studi *In Silico* Senyawa Aktif Rimpang Kunyit (*Curcuma domestica*) Terhadap Penghambatan Acetylcholinesterase, Microtubulin (beta tubulin), dan Aktivasi Calcium Channel sebagai Terapi Antelmintik', *Jurnal Kedokteran Komunitas*, vol.8, no.2, pp. 36-47.
- Baile, Fuentes M., Ventero, M.P., Encinar, J.A., García-Morales, P., Poveda-Deltell, M., Pérez-Valenciano, E., Barberá, V.M., Gallego-Plazas, J., Rodríguez-Lescure, Á., Martín-Nieto, J. & Saceda, M. 2020, 'Differential effects of IGF-1R small molecule tyrosine kinase inhibitors BMS-754807 and OSI-906 on human cancer cell lines', *Cancers*, 12(12), pp.1-18.
- Banerjee, M., Chattopadhyay, S., Choudhuri, T., Bera, R., Kumar, S., Chakraborty, B. & Mukherjee, S.K. 2016, 'Cytotoxicity and cell cycle arrest induced by andrographolide lead to programmed cell death of MDA-MB-231 breast cancer cell line', *Journal of biomedical science*, vol.23, no.1, pp.1-17.

- Broomhead, N.K., & Soliman, M.E. 2017, 'Can We Rely on Computational Predictions To Correctly Identify Ligand Binding Sites on Novel Protein Drug Targets? Assessment of Binding Site Prediction Methods and a Protocol for Validation of Predicted Binding Sites', *Cell Biochemistry and Biophysics*, vol.75, no.1, pp. 15–23.
- Cabail, M.Z., Li, S., Lemmon, E., Bowen, M.E., Hubbard, S.R. & Miller, W.T. 2015, 'The insulin and IGF1 receptor kinase domains are functional dimers in the activated state', *Nature communications*, vol.6, no.1, pp.1-8.
- Cao, Y., Roth, M., Piperdi, S., Montoya, K., Sowers, R., Rao, P., Geller, D., Houghton, P., Kolb, E.A., Gill, J. & Gorlick, R. 2014, 'Insulin-like growth factor 1 receptor and response to anti-IGF1R antibody therapy in osteosarcoma', *PloS one*, vol.9, no.8, pp. e106249.
- Carrington, C. 2015, 'Oral targeted therapy for cancer', *Aust Prescr*, vol.38, no.55, pp. 171–176.
- Chang, H.F. & Yang, L.L. 2012, 'Gamma-mangostin, a micronutrient of mangosteen fruit, induces apoptosis in human colon cancer cells', *Molecules*, vol.17, no.7, pp. 8010-8021.
- Chen, R., Wu, J., Lu, C., Yan, T., Qian, Y., Shen, H., Zhao, Y., Wang, J., Kong, P. & Zhang, X. 2021, 'Systematic transcriptome analysis reveals the inhibitory function of cinnamaldehyde in non-small cell lung cancer', *Frontiers in Pharmacology*, vol.11, pp. 1-16.
- Cheng, K., Zhang, G.L., Qiu, S.X., Liu, Y.Q., Wang, Y.F., Liu, S., Shan, Y., Yu, B. & Lu, Y. 2014, 'Synthesis and antitumor activities of α -, γ -mangostin derivatives', *Letters in Drug Design & Discovery*, vol.11, no.5, pp. 586-593.
- Dermawan, D., Sumirtanurdin, R., & Dewantisari, D. 2019, 'Molecular Dynamics Simulation Estrogen Receptor Alpha againsts Andrographolide as Anti Breast Cancer', *Indonesian Journal of Pharmaceutical Science and Technology*, vol.6, no.2, pp. 65-76.
- Dwitiyanti, D., Rachmania, A., Efendi, K. & Atmojo, T.T. 2018, 'Potensi Biji Buah Nangka (*Artocarpus heterophyllus* L.) Dalam Menghambat Reseptor Alfa-Glukosidase Pada Tikus Diabetes Mellitus Gestasional yang Terinduksi Streptozotisin Secara *In Vivo* Dan *In Silico*', *Prosiding Seminar Nasional Berseri*, vol.1, pp. 118-130.
- Du, X., Li, Y., Xia, Y.L., Ai, S.M., Liang, J., Sang, P., Ji, X.L. & Liu, S.Q. 2016, 'Insights into protein–ligand interactions: mechanisms, models, and methods', *International journal of molecular sciences*, vol.17, no.2, pp. 144.
- Ekawasti, F., Sa'diah, S., Cahyaningsih, U., Dharmayanti, N.L.P.I. & Subekti, D.T. 2021, 'Molecular Docking Senyawa Jahe Merah dan Kunyit pada Dense Granules Protein-1 Toxoplasma gondii dengan Metode *In Silico*', *Jurnal Veteriner Desember*, vol.22, no.4, pp. 474-484.
- Fakih, T.M., Wisnuwardhani, H.A., Dewi, M.L., Ramadhan, D.S.F., Hidayat, A.F. & Prayitno, R. 2021, 'Simulasi Dinamika Molekuler Senyawa Asam Ferulat

- dan Turunannya dari Kulit Buah Nanas (*Ananas comosus*) sebagai Inhibitor Enzim Tirosinase', *Jurnal Sains Farmasi & Klinis*, vol.8, no.2, pp. 208-220.
- Fan, C., Huang, Y.X., Bao, Y.L., Sun, L.G., Wu, Y., Yu, C.L., Zhang, Y., Song, Z.B., Zheng, L.H., Sun, Y. & Wang, G.N. 2012, 'Virtual screening of specific insulin-like growth factor 1 receptor (IGF1R) inhibitors from the National Cancer Institute (NCI) molecular database', *International journal of molecular sciences*, vol.13, no.12, pp. 17185-17209.
- Farkhani, Aulia. 2012, 'Analisis Dinamika Molekuler Hasil Penambatan Kompleks α -Glukosidase dengan Sulokrin', *Skripsi*, Universitas Indonesia, Jakarta.
- Frimayanti, N., Djohari, M. & Khusnah, A.N. 2021, 'Molekular Docking Senyawa Analog Kalkon sebagai Inhibitor untuk Sel Kanker Paru-Paru A549', *Jurnal Ilmu Kefarmasian Indonesia*, vol.19, no.1, pp. 87-95.
- Frimayanti, N., Zamri, A., Eryanti, Y., Herfindo, N. & Azteria, V. 2021, 'Docking and Molecular Dynamic Simulations Study to Search Curcumin Analogue Compounds as Potential Inhibitor Against SARS-CoV-2: A Computational Approach', *Jurnal Kimia Sains dan Aplikasi*, vol.24, no.3, pp. 85-90.
- Forli, S., Huey, R., Pique, M.E., Sanner, M., Goodsell, D.S. & Olson, A.J. 2016, 'Computational protein-ligand docking and virtual drug screening with the AutoDock suite', *Nat Protoc*, vol.11, no.5, pp. 905-919.
- Garg, M., Chauhan, M. & Kumar, R. 2017, 'Identification of new insulin growth factor receptor-1 (IGF-1R) inhibitors via exploring ATPase kinase domain of IGF-1R through virtual screening', *Medicinal Chemistry Research*, vol.26, no.1, pp. 205-219.
- Girisa, S., Shabnam, B., Monisha, J., Fan, L., Halim, C. E., Arfuso, F. & Kunnumakkara, A. B. 2019, 'Potential of zerumbone as an anti-cancer agent', *Molecules*, vol.24, no.4, pp. 734.
- Haisa, M. 2013, 'The type 1 insulin-like growth factor receptor signalling system and targeted tyrosine kinase inhibition in cancer', *Journal of International Medical Research*, vol.41, no.2, pp. 253-264.
- Hanif, A.U., Lukis, P.A. & Fadlan, A., 2020, 'Pengaruh minimisasi energi MMFF94 dengan MarvinSketch dan open Babel PyRx pada penambatan molekular turunan oksindola tersubstitusi', *Alchemy*, vol.8, no.2, pp.33-40.
- Hu, S., Xu, Y., Meng, L., Huang, L. & Sun, H. 2018, 'Curcumin inhibits proliferation and promotes apoptosis of breast cancer cells', *Experimental and therapeutic medicine*, vol. 16, no.2, pp. 1266-1272.
- Imaniastuti, R. 2011, 'Simulasi Dinamika Molekul Neuraminidase Virus Influenza A Subtype H1N1 dengan Inhibitor Potensial Peptida Siklis Disulfida (DNY, LRL, NNY)', *Skripsi*, Universitas Indonesia, Jakarta
- Irwan, I., Hajrah, H. & Sastyarina, Y. 2021, 'Simulasi Docking Senyawa Naphthoquinones Umbi Bawang Tiwai (*Eleutherine americana* Merr.)

- terhadap Bakteri Mycobacterium tuberculosis', *Proceeding of Mulawarman Pharmaceuticals Conferences*, vol.13, pp. 92-98.
- Jiao, Q., Bi, L., Ren, Y., Song, S., Wang, Q. & Wang, Y.S. 2018, 'Advances in studies of tyrosine kinase inhibitors and their acquired resistance', *Molecular cancer*, vol.17, no.1, pp. 1-12.
- Junaid, M., Muhseen, Z. T., Ullah, A., Wadood, A., Liu, J., & Zhang, H. 2014, 'Molecular modeling and molecular dynamics simulation study of the human Rab9 and RhoBTB3 C-terminus complex', *Biomedical Informatics*, vol.10, no.12, pp. 757-763.
- Kritsanawong, S., Innajak, S., Imoto, M. & Watanapokasin, R. (2016) 'Antiproliferative and apoptosis induction of α -mangostin in T47D breast cancer cells', *International journal of oncology*, vol.48, no.5, pp. 2155-2165.
- Kartini, Rina Ayu. 2021, 'Kajian Potensi Senyawa Turunan Aminokalkon Sebagai Inhibitor Reseptor Faktor Pertumbuhan Epidermal Secara *In Silico*', *Skripsi*, Universitas Jenderal Soedirman, Purwokerto.
- Karyawati, T. 2019, 'Simulasi Dinamika Molekular Senyawa-2, 6-Dimethyl-4-(2-Methyl-2, 3-Dihydrobenzo [B] [1, 4] Thiazepin-4-Yl) Phenol Pada Protein 4n00 Sebagai Kandidat Sistem Saraf Pusat Menggunakan Aplikasi Gromacs', *Prosiding Seminar Nasional dan Penelitian Kesehatan 2018*.
- Laksmiani, N.L., Paramita, N.L.P.V. & Wirasuta, I.M.A.G. 2016, '*In vitro* and *in silico* antioxidant activity of purified fractions from purple sweet potato ethanolic extract', *International Journal of Pharmacy and Pharmaceutical Sciences*, vol.8, no.8, pp.177-181.
- Lee, J.J., Lee, J.H., Yim, N.H., Han, J.H. & Ma, J.Y. 2017, 'Application of galangin, an active component of *Alpinia officinarum* Hance (Zingiberaceae), for use in drug-eluting stents', *Scientific reports*, vol.7, no.1, pp. 1-12.
- Lelita, R., Gunawan, R. & Astuti, W. 2017, 'Studi docking molekular senyawa kuersetin, kalkon dan turunannya sebagai inhibitor sel kanker payudara MCF-7 (Michigan Cancer Foundation-7)', *Jurnal Atomik*, vol.1, no.2, pp. 190-196
- Liu, K., Watanabe, E & Kokubo, H. 2017, 'Exploring the Stability of Ligand Binding modes to Proteins by Molecular dynamic Simulation', *Journal of computeraided molecular design*, vol.31, no.2, pp. 201-211.
- Malik, Z., Parveen, R., Parveen, B., Zahiruddin, S., Aasif, M., Khan, A., Massey, S., Ahmad, S. & Husain, S.A. 2021, 'Anticancer potential of andrographolide from *Andrographis paniculata* (Burm. f.) Nees and its mechanisms of action', *Journal of Ethnopharmacology*, pp.113936.
- Mardiana, M. 2019, 'Simulasi Dinamika Molekular Senyawa Pyridin Pada Protein 2xnb Sebagai Antikanker Menggunakan Aplikasi Gromas', *Prosiding Seminar Nasional dan Penelitian Kesehatan 2018*.
- Marfina, A., Cahyono, E., Mursiti, S. & Harjono, H. 2019, 'Sintesis Nanopartikel Emas dengan Bioreduktor Minyak Atsiri Kayu Manis (*Cinnamomum*

- Burmanni*'), Indonesian Journal of Chemical Science, vol.8, no.2, pp. 126-132.
- Markowicz, J., Uram, Ł., Sobich, J., Mangiardi, L., Maj, P. & Rode, W. 2019, 'Antitumor and anti-nematode activities of α -mangostin', *European journal of pharmacology*, vol.863, pp.1-8.
- 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*, vol.2, no.2, pp. 112-121.
- Mohan, K., Marthong, B., Atanu, B., Wadhwani, A., Gayathri, D. & Velmurugan, D. 2018, 'Identification and in-silico analysis of anti-cancer compounds from herbal mix of North-East India', *Life Science Informatics Publication*, vol.4, no.484, pp. 484-497.
- Mohammad, P., Nosratollah, Z., Mohammad, R., Abbas, A. & Javad, R. 2010, 'The inhibitory effect of Curcuma longa extract on telomerase activity in A549 lung cancer cell line', *African Journal of Biotechnology*, vol.96, pp. 912-919.
- Natalia, A.P. 2021, 'Studi Komputasi Aktivitas Naringenin Sebagai Inhibitor Dipeptidil Peptidase IV', *Skripsi*, Universitas Sanata Dharma, Yogyakarta.
- Narko, T., Benny, P., Riska, P., Dang, S. & Faridhatul, K. 2017, 'Molecular Docking Study of Bulb of Bawang Dayak (*Eleutherine palmifolia* (L) Merr) Compound as Anti Cervical Cancer', *Jurnal Ilmiah Farmako Bahari*, vol.8, no.2, pp. 1-14.
- Nugraha, G. & Istyastono, E.P. 2020, 'Pembuatan Protokol Penapisan Virtual Berbasis Struktur (pvbs) untuk Identifikasi Ligan Inhibitor Reseptor Platelet-Activating Factor (PAF-r) sebagai Target Terapeutik Asma menggunakan YASARA', *Jurnal Riset Kimia*, vol.11, no.1, pp.35-42.
- Nurdin, A.I., Amin, M.Z., Putri, Z.A., Lestari, A.W.S. & Fauzi, A. 2018, 'Eksistensi jamu sebagai minuman tradisional di dunia penelitian modern dan potensinya dalam kajian in silico', *Prosiding Seminar Nasional Pendidikan Biologi*, pp. 222-227.
- Nurwidya, F., Andarini, S., Takahashi, F., Syahrudin, E. & Takahashi, K. 2016, 'Implications of insulin-like growth factor 1 receptor activation in lung cancer', *The Malaysian journal of medical sciences: MJMS*, vol.23, no.3, pp. 9-21
- Noomhorm, N., Chang, C.J., Wen, C.S., Wang, J.Y., Chen, J.L., Tseng, L.M., Chen, W.S., Chiu, J.H. & Shyr, Y.M. 2014, 'In vitro and in vivo effects of xanthorrhizol on human breast cancer MCF-7 cells treated with tamoxifen', *Journal of pharmacological sciences*, vol.125, no.4, pp.375-385.
- Oktariani, O. 2017, 'Identifikasi Dan Penetapan Kadar Pinostrobin Dalam Rimpang Temu Kunci (*Boesenbergia Pandurata* (Roxb) Schlecht) Secara Klt-Densitometri', *Jurnal Ilmu dan Teknologi Kesehatan*, vol.8, no.2. pp. 1-9

- Oon, S.F., Nallappan, M., Tee, T.T., Shohaimi, S., Kassim, N.K., Sa'ariwijaya, M.S.F. and Cheah, Y.H. 2015, 'Xanthorrhizol: a review of its pharmacological activities and anticancer properties', *Cancer cell international*, vol.15, no.1, pp. 1-15.
- Pantsar, T. & Poso, A. 2018, 'Binding Affinity Via Docking: Fact and Fiction', *Molecules*, vol.23, no.8, pp. 2-11.
- Parikesit, A.A., Nurdiansyah, R. & Agustriawan, D. 2019, 'Penerapan Pendekatan Machine Learning Pada Pengembangan Basis Data Herbal Sebagai Sumber Informasi Kandidat Obat Kanker', *Jurnal Teknologi Industri Pertanian*, vol.29, no.2, pp. 175-182.
- Prasasty, V.D., Cindana, S., Ivan, F.X., Zahroh, H. & Sinaga, E. 2020, 'Structure-based discovery of novel inhibitors of *Mycobacterium tuberculosis* CYP121 from Indonesian natural products', *Computational Biology and Chemistry*, vol.85, pp. 1-9.
- Pratiwi, S., Runadi, D. & Sinamat, O.P.M. 2016, 'Sintesis Oktal Para Metoksisinamat dari Bahan Baku Rimpang Kencur (*Kaempferia galangae* Rhizoma)', *Farmaka*, vol.14, no.3, pp. 109-118.
- Prayoga, H., Yulianti, Y. & Riyanto, A. 2018, 'Analisis dinamika molekul protein lysozyme putih telur dengan model potensial lennard-jones menggunakan aplikasi gromacs', *Jurnal Teori dan Aplikasi Fisika*, vol.6, no.2, pp. 239-248.
- Puspaningrat, L.P.D., Abdillah, E.K., Wiguna, I.P., Putra, A.P. & AR, R.I. 2019, 'Isolasi Etil P-Metoksisinamat Dari Kencur Dengan Metode Soxhletasi', *Jurnal Kesehatan MIDWINERSLION*, vol.44(2), pp. 154-159.
- Rachmania, R.A, Supandi, & Larasati, O.A. 2015. 'Analisis in-silico senyawa diterpenoid lakton herba sambiloto (*Andrographis paniculata* Nees) pada reseptor alpha-glucosidase sebagai antidiabetes tipe II', *Pharmacy*,12(2), pp. 210-222
- Rachmania, R.A. 2019, 'Validasi protokol skrining virtual dan analisis interaksi inhibitor antiproliferasi sel kanker berbasis bahan alam terhadap reseptor cyclindependent kinase 4 (CDK 4)', *Media Farmasi*, vol.16, no.1, pp. 21-40
- Rahman, M.M., Saha, T., Islam, K.J., Suman, R.H., Biswas, S., Rahat, E.U., Hossen, M.R., Islam, R., Hossain, M.N., Mamun, A.A. and Khan, M. 2021, 'Virtual screening, molecular dynamics and structure-activity relationship studies to identify potent approved drugs for Covid-19 treatment', *Journal of Biomolecular Structure and Dynamics*, vol.39, no.16, pp. 6231-6241.
- Sari, I.W. and Junaidin, D.P. 2020, 'Molecular Docking Study Flavonoid Compounds From Kumis Kucing (*Orthosiphon stamineus* B.) In A-Glukosidase Receptor As Antidiabetic Type 2', *Jurnal Farmagazine*, vol.7, no.2, pp. 54-60.
- Sabila, R., Megantara, S. and Saputri, F.A. 2020, 'Sintesis Senyawa Turunan Andrografolid pada Gugus Hidroksil C-14', *Jurnal Farmasi Sains dan Terapan*, vol.7, no.2, pp. 55-63.

- Sastry, G. M., Adzhigirey, M., Day, T., Annabhimoju, R. & Sherman, W. 2013, 'Protein and Ligand Preparation: Parameters, Protocols, and Influence on Virtual Screening Enrichments', *Aided Mol*, vol.27, no.3, pp. 221–234.
- Singh, N., Rao, A.S., Nandal, A., Kumar, S., Yadav, S.S., Ganaie, S.A. & Narasimhan, B. 2021, 'Phytochemical and pharmacological review of *Cinnamomum verum* J', *Food Chemistry*, vol.338, pp. 1-24.
- Skjaerven, L., Grant, B., Muga, A., Teigen, K., McCammon, J.A., Reuter, N. & Martinez, A. 2011, 'Conformational sampling and nucleotide-dependent transitions of the GroEL subunit probed by unbiased molecular dynamics simulations', *PLoS computational biology*, vol.7, no.3, pp. 1-14.
- Soni, N.U.P.U.R., Pardasani, K.R. & Mujwar, S.O.M.D.U.T.T. 2015, 'In silico analysis of dietary agents as anticancer inhibitors of insulin like growth factor 1 receptor (IGF1R)', *International Journal of Pharmacy and Pharmaceutical Sciences*, vol.7, no.9, pp. 191-196.
- Susanti, N.M.P., Laksmiani, N.P.L., Dewi, P.P.P. & Dewi, P.Y.C. 2019, 'Molecular Docking Terpinen-4-ol pada Protein IKK sebagai Antiinflamasi pada Aterosklerosis secara *In Silico*', *Jurnal Kimia (Journal Of Chemistry)*, vol.13, no.2, pp: 221-228.
- Suharti, R. 2021, 'Penambatan Molekul, Simulasi Dinamika Molekul Dan Prediksi Toksisitas Senyawa-Senyawa Yang Terkandung Dalam Teh (*Camellia Sinensis*) yang Berpotensi Sebagai Inhibitor Main Protease Sars-Cov-2', *Tugas Akhir*, Universitas Bhakti Kencana, Purwokerto.
- Suherlan, S., Rohayah, R. & Fakhri, T. M. 2021, 'Uji Aktivitas Antikanker Payudara Senyawa Andrografolida Dari Tumbuhan Sambiloto (*Andrographis Paniculata (Burm F) Ness.*) Terhadap Human Epidermal Growth Factor Receptor 2 (Her-2) Secara *In Silico*', *Jurnal Ilmiah Farmasi Farmasyifa*, vol.4, no.2, pp. 39–50.
- Syamsudin., Farida., Widowati, Diah., & Faizatun. 2008, 'Profil Distribusi dan Eliminasi Senyawa α -Mangostin setelah Pemberian Oral pada Tikus', *Jurnal Sains dan Teknologi Farmasi*, vol.7, no.9, pp. 53-58.
- Tong, L.J., Xie, H., Peng, T., Liu, X.F., Xin, X.L., Huang, X., Chen, S.M., Liu, H.Y., Li, H.L., Geng, M.Y. & Yin, M. 2011, 'Establishment of platform for screening insulin-like growth factor-1 receptor inhibitors and evaluation of novel inhibitors', *Acta Pharmacologica Sinica*, vol.32, no.7, pp.930-938.
- Ummah, K., Mahardika, R.G. & Mardiyah, A. 2020, 'Sintesis Senyawa Vanilil Metil Keton dan Uji Aktivitas Antiinflamasi terhadap Enzim COX-1 dan COX-2 melalui Analisis *In Silico*', *ALCHEMY*, vol.8, no.2, pp.1-11.
- Vania, L., Widyananda, M.H., Kharisma, V.D., Ansori, A.N.M., Naw, S.W., Maksimiuk, N., Derkho, M., Denisenko, A., Sumantri, N.I. & Nugraha, A.P. 2021, 'Anticancer Activity Prediction Of *Garcinia Mangostana* L. Against Her2-Positive Breast Cancer Through Inhibiting Egfr, Her2 And Igf1r.

- Protein: A Bioinformatics Study', *Biochem. Cell. Arch*, vol.21, no.2, pp. 3313-3321
- Vinsiah, R. and Fadhillah, F. 2018, 'Studi Ikatan Hidrogen Sistem Metanol-Metanol & Etanol-Etanol dengan Metode Molekular Dinamik', *Sainmatika: Jurnal Ilmiah Matematika dan Ilmu Pengetahuan Alam*, vol.15, no.1, pp. 14-22.
- Wahyuni, P.W.T. and Herdiyanto, M.R. 2017, 'Metode Ekstraksi dan Pemisahan Optimum Untuk Isolasi Xantorizol dari Temulawak (*Curcuma xanthorrhiza*)', *Jurnal Jamu Indonesia*, vol.2, no.2, pp. 43-50.
- Weroha, S. J., & Haluska, P. 2012, 'The Insulin-Like Growth Factor System in Cancer', *Endocrinology and Metabolism Clinics of North America*, vol 41, no 2, pp. 335-350
- Wiyono, L., Edina, B.C., Rahmawanti, R.A., Azizah, N.N., Paramita, R.I., Purwaningsih, E.H. & Fadilah, F. 2020, 'Isolation, Synthesis Nanoparticle, and In vitro test of Pinostrobin from *Kaempferia pandurata* on MCF-7 and MDAMB-231 Breast Cancer Cell', *Research Journal of Pharmacy and Technology*, vol.13, no.6, pp. 2797-2801.
- Wu, J., Chen, K., Zhang, F., Jin, J., Zhang, N., Li, D., Ying, L., Chen, W., Yu, H., Mao, W. & Su, D. 2017, 'Overcoming Linsitinib intrinsic resistance through inhibition of nuclear factor- κ B signaling in esophageal squamous cell carcinoma', *Cancer Medicine*, vol.6, no.6, pp. 1353-1361.
- Wlodawer, A., Minor, W., Dauter, Z. & Jaskolski, M. 2008, 'Protein Crystallography for NonCrystallographers, or How to Get the best (but not more) from Published Macromolecular Structures', *The FEBS journal*, vol. 275, no.1, pp. 1-21.
- Yuan, J., Yin, Z., Tao, K., Wang, G. & Gao, J. 2018, 'Function of insulin-like growth factor 1 receptor in cancer resistance to chemotherapy', *Oncology letters*, vol.15, no.1, pp. 41-47.
- Zhang, R., Feng, X., Su, G., Mu, Z., Zhang, H., Zhao, Y., Jiao, S., Cao, L., Chen, S., Tu, P. & Chai, X. 2018, 'Bioactive sesquiterpenoids from the peeled stems of *Syringa pinnatifolia*', *Journal of natural products*, vol. 81, no.8, pp. 1711-1720.
- Zhu, X., Li, R., Wang, C., Zhou, S., Fan, Y., Ma, S., Gao, D., Gai, N. & Yang, J. 2021, 'Pinocembrin Inhibits the Proliferation and Metastasis of Breast Cancer via Suppression of the PI3K/AKT Signaling Pathway', *Frontiers in Oncology*, vol. 11, pp. 29-41