DAFTAR PUSTAKA

Abdillah, S., Tambunan, R.M., Farida, Y., Dwi, S.N.M., and Dewi, R.M., 2015, Phytochemical Screening and Antimalarial Activity of Some Plants Traditionally Used in Indonesia, *Asian Pacific J. Trop. Dis.*, 5(6), 454–457.

Aditama, R., Eryanti, Y., Mujahidin, D., Syah, Y.M., and Hertadi, R., 2017, Determination of Activities of Human Carbonic Anhydrase II Inhibitors from Curcumin Analogs, *Trop. J. Pharm. Res.*, 16 (4), 849–854.

Alsari, P.A., 2021, Aktivitas Antimalaria Analog Kurkumin Hasil Sintesis Sinamaldehida dengan Variasi Keton dan Studi *In Silico* Terhadap Enxim *Plasmodium falciparum Lactate Dehydrogenase* (PfLDH), *Skripsi*, Jurusan Kimia FMIPA UGM, Yogyakarta.

Amelo, W. and Makonnen, E., 2021, Efforts Made to Eliminate Drug-Resistant Malaria and Its Challenges, *Biomed Res. Int.*, 1–12.

Anand, P., Thomas, S.G., Kunnumakkara, A.B., Sundaram, C., Harikumar, K.B., Sung, B., Tharakan, S.T., Misra, K., Priyadarsini, I.K., Rajasekharan, K.N., and Aggarwal, B.B., 2008, Biological Activities of Curcumin and Its Analogues (Congeners) Made by Man and Mother Nature, *Biochem. Pharmacol.*, 76, 1590–1611.

Andriyani, N., 2014, Sintesis dan Uji Antibakteri Senyawa N-fenil-bromopirazolina dari 5-bromovanilin dan Asetofenon, *Skripsi*, Jurusan Kimia FMIPA UGM, Yogyakarta.

Andromeda, Ekawardhani, S., and Berbudi, A., 2020, The Role of Curcumin as an Antimalarial Agent, *Syst. Rev. Pharm.*, 11(7), 18–25.

Anisa, D.N., Anwar, C., dan Afriyani, H., 2020, Sintesis Senyawa Aanalog Kurkumin Berbahan Dasar Veratraldehida dengan Metode Ultrasound, *Anal. Anal. Environ. Chem.*, 5(01), 74–81.

Anonim, 2020a, *Profil Kesehatan Indonesia Tahun 2019*, Kementerian Kesehatan Republik Indonesia, Jakarta.

Anonim, 2020b, *World Malaria Report: 20 years of global progress and challenges*, World Health Organization, Geneva.

Azzi, E., Alberti, D., Parisotto, S., Oppedisano, A., and Protti, N., 2019, Bioorganic Chemistry Design, Synthesis and Preliminary In-Vitro Studies of Novel Boronated Monocarbonyl Analogues of Curcumin (BMAC) for Antitumor and β-Amiloyd Sisaggregation Activity, *Bioorg. Chem.*, 93, 1-10.

Balaji, S.N., Ahsan, M.J., Jadav, S.S., and Trivedi, V., 2019, Molecular Modelling, Synthesis, and Antimalarial Potentials of Curcumin Analogues Containing Heterocyclic Ring, *Arab. J. Chem.*, 12(8), 2492–2500.

Balikagala, B., Yatsushiro, M.S., Tachibana, S.I., Ikeda, M., Yamauchi, M., Katuro, O.T., Ntege, E.H., Sekihara, M., Fukuda, N., Takahashi, N., Yatsushiro, S., Mori, T., Hirai, M., Opio, W., Obwoya, P.S., Anywar, D.A., Auma, M.A., Palacpac, N.M.Q., Tsuboi, T., Aginya, E.I.O, Kimura, E., Ogwang, M., Horii, T., and Mita, T., 2020, Recovery and Stable Persistence of Chloroquine Sensitivity in *Plasmodium falciparum* Parasites After Its Discontinued Use in Northern Uganda, *Malar. J.*, 19(79), 1–12.

Belete, T.M., 2020, Recent Progress in the Development of New Antimalarial Drugs with Novel Targets, *Drug Des. Devel. Ther.*, 14, 3875–3889.

Berthi, W., González, A., Rios, A., Blair, S., Cogollo, Á., and Pabón, A., 2018, Anti-plasmodial Effect of Plant Extracts from *Picrolemma huberi* and *Picramnia latifolia*, *Malar. J.*, 17(151), 1–12.

Büyükköroğlu, G., Dora, D.D., Özdemir, F., and Hızel, C., 2018, *Techniques for Protein Analysis*. In Barh, D. and Azevedo, V., *Omics Technologies and Bio-engineering: Towards Improving Quality of Life*, 1st Edition, Academic Press, Cambridge.

Chaniad, P., Mungthin, M., Payaka, A., Viriyavejakul, P., and Punsawad, C., 2021, Antimalarial Properties and Molecular Docking Analysis of Compounds from *Dioscorea bulbifera* L. as New Antimalarial Agent Candidates, *BMC Complement. Med. Ther.*, 21(144), 1–10.

Chen, G., Seukep, A.J., and Guo, M., 2020, Recent Advances in Molecular Docking for the Research and Discovery of Potential Marine Drugs, *Mar. Drugs*, 18(11), 1–22.

Da'i, M., Fajria, A., dan Utami, W., 2010, Sintesis Senyawa Analog Kurkumin 3,4-bis(4-hidroksi-3-metoksibenzilidin)-piperidin-4-on (Monohiderat Hidroklorida) dengan Katalis HCl, *Pharmacom*, 11(1), 33–38.

Damayanti, S., Khonsa, K., and Amelia, T., 2021, Antiviral Activity and Toxicity Prediction of Compounds Contained in Figs (*Ficus carica* L.) by In Silico Method, *Indones. J. Pharm. Sci. Technol.*, 8(1), 21-33.

Das, K.K., Razzaghi-asl, N., Tikare, S.N., Santo, R. Di, Costi, R., Messore, A., Pescatori, L., Crucitti, G.C., Jargar, J.G., Dhundasi, S.A., and Saso, L., 2016, Hypoglycemic Activity of Curcumin Synthetic Analogues in Alloxan-Induced Diabetic Rats, *J. Enzym. Inhib. Med. Chem.*, 31(1), 99–105.

Dohutia, C., Chetia, D., Gogoi, K., Bhattacharyya, D.R., and Sarma, K., 2017,

Molecular Docking, Synthesis and In Vitro Antimalarial Evaluation of Certain Novel Curcumin Analogues, *Brazilian J. Pharm. Sci.*, 53(4), 1–14.

Eryanti, Y., Hendra, R., Herlina, T., Zamri, A., and Supratman, U., 2015, Synthesis of Curcumin Analogue, N-H and N-Benzil-4-Piperidone and Their Cytotoxic Activity, *Procedia Chem.*, 17, 224–229.

Fajri, A.N. dan Handayani, S., 2017, Sintesis 2-(3'-hidroksibenziliden) sikloheksanon Melalui Reaksi Claisen-Schmidt Antara 3-hidroksibenzaldehida dan Sikloheksanon Menggunakan Metode MAOS, *J. Penelit. Saintek*, 22(2), 67–79.

Faqih, K., Yahmin, dan Suharti, 2019, Skrining Turunan Flavonoid Sebagai Kandidat Inhibitor Protease nsP2 dari Virus Chikungunya Menggunakan *Molecular Docking*, *JC-T (Journal Cis-Trans) J. Kim. dan Ter.*, 3(1), 34–44.

Fikrika, H., Ambarsari, L., and Sumaryada, T., 2016, Molecular Docking Studies of Catechin and Its Derivatives as Anti-bacterial Inhibitor for Glucosamine-6-Phosphate Synthase, *IOP Conf. Ser. Earth Environ. Sci.*, 31(1), 4–10.

Fikroh, R.A., Matsjeh, S., dan Anwar, C., 2020, Aktivitas Antibakteri Turunan Kalkon Tersubstitusi Bromo Terhadap Bakteri *Bacillus subtilis* dan *Escherichia coli*, *Al-Kimia*, 8(1), 72–82.

Flora, G., Gupta, D., and Tiwari, A., 2013, Nanocurcumin: A promising Therapeutic Advancement Over Native Curcumin, *Crit. Rev. Ther. Drug Carrier Syst.*, 30(4), 331–368.

Hadanu, R., 2009, Senyawa Baru Potensial Antimalaria Turunan 5-Bromo-1, 10-Fenantrolin: Sintesis dan Uji Aktivitas, *Kedokt. dan Kesehat.*, 2(1), 39–45.

Hakim, L., 2011, Malaria: Epidemiologi dan Diagnosis, *Aspirator*, 3(2), 107–116.

Huang, S. and Zou, X., 2010, Advances and Challenges in Protein-Ligand Docking, *Int. J. Mol. Sci.*, 11, 3016–3034.

Jonville, M.C., Kodja, H., Humeau, L., Fournel, J., Mol, P. De, Cao, M., Angenot, L., and Frédérich, M., 2008, Screening of Medicinal Plants from Reunion Island for Antimalarial and Cytotoxic Activity, *J. Ethnopharmacol.*, 120, 382–386.

Khairani, S., Fauziah, N., Wiraswati, H.L., Panigoro, R., Setyowati, E.Y., and Berbudi, A., 2021, The Potential Use of a Curcumin-Piperine Combination as an Antimalarial Agent : A Systematic Review, *J. Trop. Med.*, 2021, 1–15.

Khasanah, F.E.N. dan Husni, P., 2018, Review : Nanopartikel Kurkumin Solusi Masalah Kanker dan Antibakteri, *Farmaka*, 14(2), 172–181.

Kilo, A. La, Aman, L.O., Sabihi, I., dan Kilo, J. La, 2019, Studi Potensi Pirazolin Tersubstitusi 1-N dari Tiosemikarbazon sebagai Agen Antiamuba Melalui Uji *In Silico*, *Indo. J. Chem. Res.*, 7(1), 9–24.

Kinansi, R.R., Mayasari, R., dan Pratamawati, D.A., 2017, Pengobatan Malaria Kombinasi Artemisinin (ACT) di Provinsi Papua Barat Tahun 2013, *BALABA*, 13(1), 43–54.

Kuddushi, M.M.Y., Malek, M.A.H., Patidar, V.L., Patel, M.S., Patel, R.K., and Dave, R.H., 2018, Synthesis and Characterization of Schiff Base Aniline with 5-bromo-2-hydroxybenzaldehyde and Their Metal Complexes, *Int. J. Recent Sci. Res.*, 9(4), 26026–26030.

Manohar, S., Khan, S.I., Kulangara, S., Raj, K., Sun, G., Yang, X., Calderon, A.D., Ni, N., Wang, B., and Rawat, D.S., 2013, Bioorganic & Medicinal Chemistry Letters Synthesis, Antimalarial Activity and Cytotoxic Potential of New Monocarbonyl Analogues of Curcumin, *Bioorg. Med. Chem. Lett.*, 23(1), 112–116.

Mardianis, Y., Anwar, C., dan Haryadi, W., 2017, Sintesis Analog Kurkumin Monoketon Berbahan Dasar Sinamaldehida dan Uji Aktivitasnya Sebagai Inhibitor Enzim α-Glukosidase, *J. Sains Dasar*, 6(2), 123–132.

Mellon, F.A., 2003, *Mass Spectrometry Principles and Instrumentation*, In Caballero, B., *Encyclopedia of Food Sciences and Nutrition*, Second Edition, Academic Press, Cambridge.

Meng, X.Y., Zhang, H.X., Mezei, M., and Cui, M., 2011, Molecular Docking: A Powerful Approach for Structure-Based Drug Discovery, *Curr. Comput. Aid. Dru. Des.*, 7(2), 146–157.

Musgaard, M., Thøgersen, L., Schiøtt, B., and Tajkhorshid, E., 2012, Tracing Cytoplasmic Ca^{2+} Ion and Water Access Points in the Ca^{2+}-ATPase, *Biophys. J.*, 102(2), 268–277.

Muttaqin, I., 2017, Sintesis Turunan N-asetilpirazolina Berbahan Dasar Veratraldehida dan 5-bromo-2-hidroksiasetofenon serta Uji Sitotoksisitasnya Terhadap Beberapa Sel Kanker, *Skripsi*, Jurusan Kimia FMIPA UGM, Yogyakarta.

Nandakumar, D.N., Nagaraj, V.A., Vathsala, P.G., Rangarajan, P., and Padmanaban, G., 2006, Curcumin-Artemisinin Combination Therapy for Malaria, *Antimicrob. Agents Chemother.*, 50(5), 1859–1860.

Noureddin, S.A., El-shishtawy, R.M., and Al-footy, K.O., 2019, Curcumin Analogues and Their Hybrid Molecules as Multifunctional Drugs, *Eur. J. Med. Chem.*, 182, 1–40.

Nusantoro, Y.R. dan Fadlan, A., 2020, Analisis Sifat Mirip Obat, Prediksi ADMET, dan Penambatan Molekular Isatinil-2-Aminobenzoilhidrazon dan Kompleks Logam Transisi Co(II), Ni(II), Cu(II), Zn(II) Terhadap BCL2-XL, *Akta Kim. Indones.*, 5(2), 114–126.

Obasuyi, E. and Iyekowa, O., 2018, Synthesis, Characterization and Antimicrobial of Schfiff Base from 5-Bromo–Salicylaldehyde and P-Toluidine, *J. Appl. Sci. Environ. Manag.*, 22(11), 1733–1736.

Oke, I.A.S., Ogunseemi, M.F., Afolabi, O.J., and Awosolu, O.B., 2019, Prevalence of Malaria Parasites Among Pregnant Women and Children Under Five Years in Ekiti State, Southwest Nigeria, *J. Biomed. Transl. Res.*, 5(1), 5–11.

Osii, R.S., Otto, T.D., Garside, P., Ndungu, F.M., and Brewer, J.M., 2020, The Impact of Malaria Parasites on Dendritic Cell–T Cell Interaction, *Front. Immunol.*, 11, 1–16.

Pana, A.M., Badea, V., Bănică, R., Bora, A., Dudas, Z., Cseh, L., and Costisor, O., 2014, Network Reaction of 2,6-bis(2-hydroxybenzilidene)cyclohexanone by External Stimuli, *J. Photochem. Photobiol. A Chem.*, 283, 22–28.

Papireddy, K., Smilkstein, M., Kelly, J.X., Salem, S.M., Alhamadsheh, M., Haynes, S.W., Challis, G.L., and Reynolds, K.A., 2011, Antimalarial Activity of Natural and Synthetic Prodiginines, *J. Med. Chem.*, 54, 5296–5306.

Parhizgar, A.R. and Tahghighi, A., 2017, Introducing New Antimalarial Analogues of Chloroquine and Amodiaquine : A Narrative Review, *Iran J. Med. Sci.*, 42(2), 115–128.

Pavia, D.L., Lampman, G.M., Kriz, G.S., and Vyvyan, J.R., 2009, *Introduction to Spectroscopy*, Fouth Edition, Brooks/Cole Cengage Learning ALL, Bellingham.

Penna-Coutinho, J., Cortopassi, W.A., Oliveira, A.A., França, T.C.C., and Krettli, A.U., 2011, Antimalarial Activity of Potential Inhibitors of *Plasmodium falciparum Lactate Dehydrogenase* Enzyme Selected by Docking Studies, *PLoS One*, 6(7), 1–7.

Pertiwi, N.K.P., Handayani, S., Budimarwanti, C., dan Haryadi, W., 2016, Optimasi Konsentrasi Natrium Hidroksida pada Sintesis 2,6-bis(3',4'-dimetoksibenzilidin)sikloheksanon Melalui Reaksi Claisen-Schmid, *J. Penelit. Saintek*, 20(2), 114–121.

Prakoso, N.I., Hakim, L., and Hidayati, N., 2017, Molecular Modeling of An Analog Of Curcumin Compounds Pentagamavunon-0 (PGV-0) and Pentagamavunon-1 (PGV-1) Through Computational Chemistry Methods Ab-Initio HF/4-31G, *Indones. J. Chem. Res.*, 2, 28–39.

Priyadarsini, K.I., 2014, The Chemistry of Curcumin: From Extraction to Therapeutic Agent, *Molecules*, 19, 20091–20112.

Putra, I.R.T., 2011, Malaria dan Permasalahannya, *J. Kedokt. Syiah Kuala*, 11(2), 103–114.

Putra, I.S.R., 2020, Aktivitas Antimalaria Analog Kurkumin Hasil Sintesis 2-Hidroksibenzaldehida dengan Variasi Keton dan Studi Interaksinya Terhadap Protein SERCA, *Skripsi*, Jurusan Kimia FMIPA UGM, Yogyakarta.

Rahmawati, E.N., Teruna, H.Y., dan Zhamri, A., 2018, Sintesis dan Uji Toksisitas Senyawa Analog Kurkumin 3,5-Bis((E)-Metoksi Benziliden)-1-(Fenilsulfonil)-Piperidin-4-on, *J. Phot.*, 9(1), 151–158.

Raja, M.R.C., Srinivasan, V., Selvaraj, S., and Mahapatra, S.K., 2015, Versatile and Synergistic Potential of Eugenol: A Review, *Pharm. Anal. Acta*, 6(5), 1–6.

Reddy, R.C., Vatsala, P.G., Keshamouni, V.G., Padmanaban, G., and Rangarajan, P.N., 2005, Curcumin for Malaria Therapy, *Biochem. Biophys. Res. Commun.*, 326, 472–474.

Reiling, S.J., Krohne, G., Friedrich, O., Geary, T.G., and Rohrbach, P., 2018, Chloroquine Exposure Triggers Distinct Cellular Responses in Sensitive Versus Resistant *Plasmodium falciparum* Parasites, *Sci. Rep.*, 8(1), 1–11.

Robinson, T.P., Ehlers, T., Hubbard, R.B., Bai, X., Arbiser, J.L., Goldsmith, J., and Bowen, J.P., 2003, Design, Synthesis, and Biological Evaluation of Angiogenesis Inhibitors : Aromatic Enone and Dienone Analogues of Curcumin, *Bioorg. Med. Chem. Lett.*, 13, 115–117.

Sari, I.W., Junaidin, dan Pratiwi, D., 2020, Studi *Molecular Docking* Senyawa Flavonoid Herba Kumis Kucing (*Orthosiphon stamineus* B.) pada Reseptor α-Glukosidase sebagai Antidiabetes Tipe 2, *J. Farmagazine*, 7(2), 54–60.

Shadrack, D.M., Nyandoro, S.S., Munissi, J.J.E., and Mubofu, E.B., 2016, In Silico Evaluation of Anti-Malarial Agents from *Hoslundia opposita* as Inhibitors of *Plasmodium falciparum Lactate Dehydrogenase* (Pf LDH) Enzyme, *Comput. Mol. Biosci.*, 6, 23–32.

Sholikhah, E.N., Wijayanti, M.A., Nurani, L.H., dan Mustofa, M., 2019, Aktivitas Antiplasmodium dan Sitotoksisitas Isolat Akar Pasak Bumi (*Eurycoma longifolia* Jack) secara *In Vitro*, *Maj. Farm.*, 14(2), 54–62.

Simamora, D. dan Fitri, L.E., 2007, Resistensi Obat Malaria: Mekanisme dan Peran Obat Kombinasi Obat Antimalaria untuk Mencegah, *J. Kedokt. Brawijaya*, 23(2), 82–91.

Singh, D.B. and Dwivedi, S., 2016, Structural Insight Into Binding Mode of

Inhibitor with SAHH of *Plasmodium* and Human : Interaction of Curcumin with Anti-malarial Drug Targets, *J. Chem. Biol.*, 9, 107–120.

Singh, N. and Misra, K., 2009, Bioinformation Computational Screening of Molecular Targets in *Plasmodium* for Novel Non Resistant Anti-malarial Drugs, *Bioinformation*, 3(6), 255–262.

Sohilait, M.R., Pranowo, H.D., and Haryadi, W., 2017, Molecular Docking Analysis of Curcumin Analogues with COX-2, *Bioinformation*, 13(11), 356–359.

Souza, N.B. De, Carmo, A.M.L., Silva, A.D., França, T.C.C., and Krettli, A.U., 2014, Antiplasmodial Activity of Chloroquine Analogs Against Chloroquine-Resistant Parasites, Docking Studies and Mechanisms of Drug Action, *Malar. J.*, 14(469), 1–12.

Suhud, F., Siswandono, dan Budiati, T., 2017, Sintesis dan Uji Aktivitas Senyawa 1-Benzil-3-benzoilurea Tersubstitusi Bromo, Kloro, Floro dan Triflorometil pada Posisi Para sebagai Agen Antiproliferatif, *Media Pharm. Indones.*, 1(3), 154–163.

Suwandi, J.F., 2015, Gen PfATP6 dan Resistensi *Plasmodium falciparum* Terhadap Golongan Artemisinin, *Juke Unila*, 5(9), 141–146.

Sviatenko, L.K., 2013, Molecular Docking of Curcumin Analogues as SERCA Inhibitory Agents, *Bull. Dnipropetr. Univ. Ser. Chem. Sect.*, 21(20), 16–22.

Syamsudin, 2005, Mekanisme Kerja Obat Antimalaria, *J. Ilmu Kefarmasian Indones.*, 3(1), 37–40.

Tahir, I., Wijaya, K., dan Putri, E.S.Y., 2004, Aplikasi Pemisahan Data Secara Acak pada Analisis Hubungan Kuantitatif Struktur Elektronik dan Aktivitas Senyawa Indolilalkilamina, *Semin. Nas. Has. Penelit. Farm.*, 26 Juli 2004, Yogyakarta.

Talapko, J., Škrlec, I., Alebić, T., Jukić, M., and Vćev, A., 2019, Malaria: The Past and The Present, *Microorganisms*, 7(179), 1–17.

Trasia, R.F., 2021, Penggunaan Terapi Kombinasi dalam Pengobatan dan Pencegahan Malaria di Indonesia, *J. Pharm. Sci.*, 4(1), 29–33.

Xiang, D., Zhang, K., Zeng, Y., Yan, Q., Shi, Z., Tuo, Q., Lin, L., Xia, B., Wu, P., and Liao, D., 2020, Curcumin: From a Controversial “Panacea” to Effective Antineoplastic Products, *Medicine (Baltimore).*, 99(2), 1–10.

Yuan, X., Li, H., Bai, H., Su, Z., Xiang, Q., Wang, C., Zhao, B., Zhang, Y., Zhang, Q., Chu, Y., and Huang, Y., 2014, Synthesis of Novel Curcumin Analogues for Inhibition of Properties, *Eur. J. Med. Chem.*, 77, 223–230.