

## DAFTAR PUSTAKA

- Al-Warhi, T., Sabt, A., Elkaeed, E.B. & Eldehna, W.M., 2020. Recent Advancements of Coumarin-Based Anticancer Agents: An up-To-Date Review. *Bioorganic Chemistry*, 103, pp.104163.
- Alexopoulos, C. J., Mims, C. W., & Blackwell, M., 1996. *Introductory Mycology*. (4<sup>th</sup> ed). USA: John Wiley and Sons Inc.
- Angelia, M., Periadnadi, & Nurmiati, 2013. Pengaruh Lama Pelapukan Media Limbah Industri Teh terhadap Pertumbuhan Miselium Produksi Jamur Kuping Hitam (*Auricularia polytrica* (Mont.) Sacc.). *Jurnal Biologi Universitas Andalas (J. Bio. UA.)*, 2(4), pp.269-276.
- Argoudelis, A.D., & Herr, R.R., 1962. Sparsomycin, a New Antitumor Antibiotic. II. Isolation and Characterization. *Antimicrobial Agents and Chemotherapy*, 7, pp.780-786.
- Atjanasuppat, K., Wongkham, W., Meepowpan, P., Kittakoop, P., Sobhon, P., Bartlett, A. & Whitfield, P.J., 2009. In Vitro Screening for Anthelmintic and Antitumour Activity of Ethnomedicinal Plants from Thailand. *Journal of ethnopharmacology*, 123(3), pp.475-482.
- Balakrishnan, B., Liang, Q., Fenix, K., Tamang, B., Hauben, E., Ma, L., & Zhang, W., 2021. Combining the Anticancer and Immunomodulatory Effect of *Astragalus* and Shiitake as an Integrated Therapeutic Approach. *Nutrient*, 13(8), 2564.
- Bisko, N., Mustafin, K., Al-Maali, G., Sulemenova, Z., Lomberg, M., Narmuratova, Z., Mykchaylova, O., Mytroposka, N., & Zhakipbekova, A., 2020. Effects of Cultivation Parameters on Intracellular Polysaccharide Production in Submerged Culture of The Edible Medicinal Mushroom *Lentinula edodes*. *Czech Mycology*, 72(1), pp.1-17.
- Crowley, L.C., Marfell, B.J., Scott, A.P., & Waterhouse, N.J., 2016. Quantitation of Apoptosis and Necrosis by Annexin V Binding, Propidium Iodide Uptake, and Flow Cytometry. *Cold Spring Harbor Protocols*, 11, pp.954-957.
- Din, S.R.U., Zhong, M., Nisar, M.A., Saleem, M.Z., Hussain, A., Khinsar, K.H., Alam, S., Ayub, G., Kanwal, S., Li, X. & Zhang, W., 2020. Latricipin-7A, Derivative of *Lentinula edodes* C 91-3, Reduces Migration and Induces Apoptosis, Autophagy, and Cell Cycle Arrest at G1 phase in Breast Cancer Cells. *Applied Microbiology and Biotechnology*, 104(23), pp.10165-10179.
- Dixon, D. A., Blanco, F. F., Bruno, A., & Patrignani, P., 2013. Mechanistic Aspects of COX-2 Expression in Colorectal Neoplasia. *Prospects for*

*Chemoprevention of Colorectal Neoplasia: Emerging Role of Anti-Inflammatory Drugs*, 191, pp. 7-37.

Ekowati, N., Kasiamdari, R.S., Pusposendjojo, N. & Soegihardjo, C.J., 2011. Hubungan Kekerbatan Fenetik Jamur Shiitake (*Lentinula edodes* (Berk.) Pegler) berdasarkan Karakter Morfologi. *Majalah Ilmiah Biologi BIOSFERA: A Scientific Journal*, 28(2), pp.110-117.

Ekowati, N., Mumpuni, A. & Muljowati, J.S., 2017. Effectiveness of *Pleurotus ostreatus* Extract Through Cytotoxic Test and Apoptosis Mechanism of Cervical Cancer Cells. *Biosaintifika: Journal of Biology & Biology Education*, 9(1), pp.148-155.

Ekowati, N., Maharning, A.R., Ratnaningtyas, N.I., Mumpuni, A., & Izzah, W., 2018. Eksplorasi dan Pola Pertumbuhan Fase Vegetatif Beberapa Jamur Liar pada Medium Cair. *Prosiding Seminar Nasional dan Call for Papers "Pengembangan Sumber Daya Perdesaan dan Kearifan Lokal Berkelanjutan VIII"*, 8(1), pp.100-111.

Ekowati, N., Mumpuni, A., Ratnaningtyas, N.I. & Maharning, A.R., 2020. Compounds Detection and Inhibition Activity of Chloroform and Ethyl Acetate Extracts of *Schizophyllum commune* on Some Cancer Cell Types. *Biodiversitas Journal of Biological Diversity*, 21(12), pp.5865-5871.

Elhousseiny, S.M., El-Mahdy, T.S., Awad, M.F., Elleboudy, N.S., Farag, M., Yassein, M.A. & Aboshanab, K.M., 2021. Proteome Analysis and In Vitro Antiviral, Anticancer and Antioxidant Capacities of the Aqueous Extracts of *Lentinula edodes* and *Pleurotus ostreatus* Edible Mushrooms. *Molecules*, 26(15), p.4623.

Finimundy, T.C., Dillon, A.J.P., Henriques, J.A.P & Ely, M.R., 2014. A Review on General Nutritional Compounds and Pharmacological Properties of the *Lentinula edodes* Mushroom. *Food and Nutrition Sciences*, 5, pp.1095-1105.

Finimundy, T.C., Scola, G., Scariot, F.J., Dillon, A.J., Moura, S., Echeverrigaray, S., Henriques, J.P. & Roesch-Ely, M., 2018. Extrinsic and Intrinsic Apoptotic Responses Induced by Shiitake Culinary-Medicinal Mushroom *Lentinus edodes* (Agaricomycetes) Aqueous Extract Against a Larynx Carcinoma Cell Line. *International Journal of Medicinal Mushrooms*, 20(1), pp.1-16.

Ghada, M.M., 2011. Optimization of Submerged Culture Conditions for Mycelial Biomass Production by Shiitake Mushroom (*Lentinus edodes*). *Research Journal of Agriculture and Biological Sciences*, 7(4), pp.350-356.

Goutarel, R., Mahler, H.R., Green, G., Khuong-Huu, Q., Cavé, A., Conreur, C., Jarreau, F.X., & Hannart, J., 1967. Alcaloïdes Stéroïdiques. LXXI. Synthèse des Quatre Diamino-3, 20 Prégénène-5: Irehdiamine-A et Stéréoisomères.

- Étude Comparée de Leurs Interactions avec ADN d'*Escherichia coli*. *Bull. Soc. Chim. France*, pp.4575.
- Grijseels, S., Nielsen, J.C., Nielsen, J., Larsen, T.O., Frisvad, J.C., Nielsen, K.F., Frandsen, R.J.N., & Workman, M., 2017. Physiological Characterization of Secondary Metabolite Producing *Penicillium* Cell Factories. *Fungal Biology and Biotechnology*, 4(8), pp.1-12.
- Hasegawa, R.H., Kasuya, M.C.M., & Vanetti, M.C.D., 2005. Growth and antibacterial activity of *Lentinula edodes* in liquid media supplemented with agricultural wastes. *Electronic Journal of Biotechnology*, 8(2), pp. 94-99.
- Heleno, S.A., Martins, A., Queiroz, M.J.R. & Ferreira, I.C., 2015. Bioactivity of Phenolic Acids: Metabolites Versus Parent Compounds: A review. *Food chemistry*, 173, pp.501-513.
- Hikam, A.R., Ekowati, N. & Hernayanti, H., 2019. The Cytotoxic and Apoptosis Effects of Chloroform Extracts of *Auricularia auricula* on Cervical Cancer Cells. *Biosaintifika: Journal of Biology & Biology Education*, 11(1), pp.32-38.
- Ho, C.J., Lin, R.W., Zhu, W.H., Wen, T.K., Hu, C.J., Lee, Y.L., Hung, T.I., & Wang, C., 2019. Transcription-Independent and Dependent p53-Mediated Apoptosis in Response to Genotoxic and Non-Genotoxic Stress.
- Imam, K.M.S.U., Xie, Y., Liu, Y., Wang, F. & Xin, F., 2021. Extraction, Isolation, and Identification of Cytotoxic Secondary Metabolites from Shiitake Mushroom 808 *Lentinula edodes* (Berk.). *ACS Food Science & Technology*.
- Ismaryani, A., Salni, S., Setiawan, A. & Triwani, T., 2018. Aktivitas Sitotoksik, Antiproliferasi dan Penginduksi Apoptosis Daun Salung (*Psychotria viridiflora* Reinw. ex. Blume) terhadap Sel Kanker Serviks HeLa. *Jurnal Ilmu Kefarmasian Indonesia*, 16(2), pp.206-213.
- Israilides, C., Kletsas, D., Arapoglou, D., Philippoussis, A., Pratsinis, H., Ebringerová, A., Hřibálová, V., & Harding, S.E., 2008. In Vitro Cytostatic and Immunomodulatory Properties of The Medicinal Mushroom *Lentinula edodes*. *Phytomedicine*, 15(2008), pp.512-519.
- Kamran, S., Sinniah, A., Abdulghani, M.A.M., Alshawsh, M.A., 2022. Therapeutics Potential of Certain Terpenoids as Anticancer Agents: A Scoping Review. *Cancers*, 14(2022), pp.1-46.
- Khair, K., Andayani, Y. & Hakim, A., 2017. Identifikasi Metabolit sekunder pada Hasil Fraksinasi Ekstrak *Phaseolus vulgaris* L. dengan Metode Gas Chromatography-Mass Spectroscopy (GC-MS). *Jurnal Penelitian Pendidikan IPA*, 3(1), pp.21-30.

- Kim, S.W., Hwang, H.J., Park, J.P., Cho, Y.J., Song, C.H. & Yun, J.W., 2002. Mycelial Growth and Exo-Biopolymer Production by Submerged Culture of Various Edible Mushrooms Under Different Media. *Letters in applied microbiology*, 34(1), pp.56-61.
- Kopustinskiene, D.M., Jakstas, V., Savickas, A. & Bernatoniene, J., 2020. Flavonoids as Anticancer Agents. *Nutrients*, 12(2), pp.457.
- Krupodorova, T.A., Barshteyn, V.Y., Kizitska, T.O., & Pokas, E.V., 2019. Effect of Cultivation Conditions on Mycelial Growth and Antibacterial Activity of *Lentinula edodes* and *Fomitopsis betulina*. *Czech Mycology*, 71(2), pp.167-186.
- Krupodorova, T.A., Barshteyn, V.Y., & Sekan, A.S., 2021. Review of The Basic Cultivation Conditions Influence on The Growth of Basidiomycetes. *Current Research in Environmental & Applied Mycology (Journal of Fungal Biology)*, 11(1), pp.494-531.
- Kuete, V., Karaosmanoğlu, O. & Sivas, H., 2017. Anticancer Activities of African Medicinal Spices and Vegetables. In *Medicinal spices and vegetables from Africa* (pp.271-297). Academic Press.
- Lau, M., Chua, K., Sabaratnam, V., & Kuppusamy, U. R., 2020. In Vitro and in Silico Anticancer Evaluation of a Medicinal Mushroom, *Ganoderma neo-japonicum* Imazeki, Against Human Colonic Carcinoma Cells. *Biotechnology and Applied Biochemistry*, 68(4), pp. 902-917.
- Lei, C., Tang, X., Li, H., Chen, H. & Yu, S., 2020. Molecular Hybridization of Grape Seed Extract: Synthesis, Structural Characterization and Anti-Proliferative Activity In Vitro. *Food Research International*, 131, pp.1-10.
- Levrero, M., De Laurenzi, V., Costanzo, A., Gong, J., Wang, J. Y., & Melino, G., 2000. The p53/p63/p73 Family of Transcription Factors: Overlapping and Distinct Functions. *Journal of cell science*, 113, pp.1661-1670.
- Li, W., Zhou, J., & Xu, Y., 2015. Study of The in Vitro Cytotoxicity Testing of Medical Devices. *Biomedical Report*, 3, pp.617-620.
- Lin, C.Y., Huo, C., Kuo, L.K., Hiipakka, R.A., Jones, R.B., Lin, H.P., Hung, Y., Su, L.C., Tseng, J.C., Kuo, Y.Y. & Wang, Y.L., 2013. Cholestane-3 $\beta$ , 5 $\alpha$ , 6 $\beta$ -triol Suppresses Proliferation, Migration, and Invasion of Human Prostate Cancer Cells. *PloS one*, 8(6), pp.1-18.
- Mahler, H.R. & Baylor, M.B., 1967. Effect of Steroidal Diamines on DNA Duplication and Mutagenesis. *Proc. Natl. Acad. Sci. U. S.* 58, pp.256.
- Matuszewska, A., Stefaniuk, D., Jaszek, M., Pięt, M., Zając, A., Matuszewski, Ł., Cios, I., Graż, M., Paduch, R. & Bancierz, R., 2019. Antitumor Potential of

- New Low Molecular Weight Antioxidative Preparations from The White Rot Fungus *Cerrena unicolor* Against Human Colon Cancer Cells. *Scientific reports*, 9(1), pp.1-10.
- McKinnon, K.M., 2018. Flow Cytometry: An Overview. *Curr Protoc Immunol*, 120, pp.1-16.
- Menkes, 2018. Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/MENKES/406/2018 Tentang Pedoman Nasional Pelayanan Kedokteran Tata Laksana Kanker Kolorektal.
- Mondal, A., Gandhi, A., Fimognari, C., Atanasov, A.G., & Bishayee, A., 2019. Alkaloids for Cancer Prevention and Therapy: Current Progress and Future Perspective. *European Journal of Pharmacology*, 858(2019), pp.1-16.
- Mouna, R., Broisat, A., Ahmed, A., Debiossat, M., Boumendjel, A., Ghezzi, C., & Kabouche, Z., 2022. Antiproliferative Activity, Cell-Cycle Arrest, Apoptotic Induction and LC-HRMS/MS Analyses of Extracts from Two *Linum* Species. *Pharmaceutical Biology*, 60(1), pp. 1491-1501.
- Noguchi, P., Wallace, R., Johnson, J., Earley, E. M., O'Brien, S., Ferrone, S., Pellegrino, M. A., Milstien, J., Needy, C., Browne, W., & Petricciani, J., 1979. Characterization of The WiDr: a Human Colon Carcinoma Cell Line. *In vitro*, 15(6), pp.401-408.
- Osman, M.E., Hassan, F.R.H., Khattab, O.H., Ahmed, W.A., El-Henawy, H.E., 2009. Physiological Studies on Growth of Two Different Strains of *Lentinula edodes*. *Australian Journal of Basic and Applied Sciences*, 3(4), pp.4094-4103.
- Ottenheijm, H.C., Van Den Broek, L.A., Ballesta, J.P. & Zylicz, Z., 1986. 6 Chemical and Biological Aspects of Sparsomycin, an Antibiotic, from *Streptomyces*. *Progress in Medicinal Chemistry*, 23, pp.219-268.
- Otto, T., & Sicinski, P., 2017. Cell Cycle Proteins as Promising Targets in Cancer Therapy. *Nature Reviews Cancer*, 17(2), pp. 93-115.
- Owen, S.P., Dietz, & Camiener, G. W., 1962. Sparsomycin, a New Antitumor Antibiotic. I. Discovery and Biological Properties. *Antimicrobial Agents and Chemotherapy*. 7, pp. 772.
- Palozza, P., Serini, S., Maggiano, N., Tringali, G., Navarra, P., Ranelletti, F. O., & Calviello, G., 2005. Beta-Carotene Downregulates The Steady-State and Heregulin-Alpha-Induced COX-2 Pathways in Colon Cancer Cells. *The Journal of nutrition*, 135(1), pp.129-136.
- Park, Y.J. & Jang, M.J., 2020. Blue Light Induced Edible Mushroom (*Lentinula edodes*) Proteomic Analysis. *Journal of Fungi*, 6(3), pp.127.

- Roopashree, K.M. & Naik, D., 2019. Advanced Method of Secondary Metabolite Extraction and Quality Analysis. *Journal of Pharmacognosy and Phytochemistry*, 8(3), pp.1829-1842.
- Rosamah, E., 2019. *Kromatografi Lapis Tipis Metode Sederhana dalam Analisis Kimia Tumbuhan Berkayu*. Samarinda: Mulawarman University Press.
- Royse, D.J., Baars, J. & Tan, Q., 2017. Current Overview of Mushroom Production in The World. *Edible and Medicinal Mushrooms: Technology and Applications*, pp.5-13.
- Sampath, S., Veeramani, V., Krishnakumar, G.S., Sivalingam, U., Madurai, S.L. & Chellan, R., 2017. Evaluation of In Vitro Anticancer Activity of 1, 8-Cineole-Containing n-Hexane Extract of *Callistemon citrinus* (Curtis) Skeels Plant and its Apoptotic Potential. *Biomedicine & Pharmacotherapy*, 93, pp.296-307.
- Silver, S., Wendt, L., & Bhattacharyya, P., 1975. Irehdiamine and Malouetine. *Mechanism of Action of Antimicrobial and Antitumor Agents*, 3, pp.614-622.
- Soković, M., Ćirić, A., Glamočlija, J. & Stojković, D., 2017. The Bioactive Properties of Mushrooms. *Wild Plants, Mushrooms and Nuts: Functional Food Properties and Applications*, 4, pp.83-122.
- Spivak, A., Khalitova, R., Nedopekina, D., Dzhemileva, L., Yunusbaeva, M., Odinokov, V., D'yakonov, V. & Dzhemilev, U., 2018. Synthesis and Evaluation of Anticancer Activities of Novel c-28 Guanidine-Functionalized Triterpene Acid Derivatives. *Molecules*, 23(11), pp.1-22.
- Suh, D.K., Lee, E.J., Kim, H.C. & Kim, J.H., 2010. Induction of G1/S Phase Arrest and Apoptosis by Quercetin in Human Osteosarcoma Cells. *Archives of pharmacal research*, 33(5), pp.781-785.
- Sung, H., Ferlay, J., Siegel, R.L., Laversanne, M., Soerjomataram, I., Jemal, A. & Bray, F., 2021. Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. *CA: A Cancer Journal For Clinicians*, 71(3), pp.209-249.
- Susanty & Bachmid, F., 2016. Perbandingan Metode Ekstraksi Maserasi dan Refluks terhadap Kadar Fenolik dari Ekstrak Tongkol Jagung (*Zea mays* L.). *Konversi*, 5(2), pp.87-93.
- Valverde, M.E., Hernández-Pérez, T. & Paredes-López, O., 2015. Edible Mushrooms: Improving Human Health and Promoting Quality Life. *International Journal of Microbiology*, 2015, pp.1-15.
- Vaz, J. A., Heleno, S. A., Martins, A., Almeida, G. M., Vasconcelos, M. H., & Ferreira, I. C., 2010. Wild Mushrooms *Clitocybe alexandri* and *Lepista*

*inversa*: In Vitro Antioxidant Activity and Growth Inhibition of Human Tumour Cell Lines. *Food and Chemical Toxicology*, 48(10), pp. 2881-2884.

Vodicka, P., Andera, L., Opattova, A., Vodickova, L., 2021. The Interactions of DNA Repair, Telomere Homeostasis, and p53 Mutational Status in Solid Cancers: Risk, Prognosis, and Prediction. *Cancers*, 13, pp. 479.

Wagner, H. & Bladt, S., 1996. *Plant Drug Analysis: a Thin Layer Chromatography Atlas*. Verlag Berlin Heidelberg: Springer Science & Business Media.

Wong, R.S.Y., 2011. Apoptosis in Cancer from Pathogenesis to Treatment. *Journal of Experimental & Clinical Cancer Research*, 30, pp.87.

Xiao, Q., Zhu, W., Feng, W., Lee, S.S., Leung, A.W., Shen, J., Gao, L., & Xu, C., 2018. A Review of Resveratrol as a Potent Chemoprotective and Synergistic Agent in Cancer Chemotherapy. *Front Pharmacol*, 9, pp. 1534.

