

DAFTAR PUSTAKA

- Ads, E.N., Abouzied, A.S., dan Alshammari, M.K., 2020. Evaluation of Cytotoxic Effects of Methanolic Extract of *Pergularia tomentosa* L Growing Wild in KSA. *Asian Pac J Cancer Prev*, **21**: 67–72.
- Ahmed, F., Akter, D., Muhit, Md.A., Raihan, S.Z., dan Faroque, A.B.M., 2018. DPPH Free-radical Scavenging and Cytotoxic Activities of *Leeamacrophylla*. *Bangladesh Medical Research Council Bulletin*, **44**: 77–81.
- Al-Dabbagh, B., Elhaty, I.A., Al Hrou, A., Al Sakkaf, R., El-Awady, R., Ashraf, S.S., dkk., 2018. Antioxidant and anticancer activities of *Trigonella foenum-graecum*, *Cassia acutifolia* and *Rhazya stricta*. *BMC Complementary and Alternative Medicine*, **18**: 240.
- Alexopoulos, C.J., Mims, C.W., dan Blackwell, M., 1996. *Introductory Mycology*, 4th ed. John Wiley & Sons, Inc., New York, USA.
- Alurappa, R., Chowdappa, S., Narayanaswamy, R., Sinniah, U.R., Mohanty, S.K., dan Swamy, M.K., 2018. Endophytic Fungi and Bioactive Metabolites Production: An Update, dalam: Patra, J.K., Das, G., dan Shin, H.-S. (Editor), *Microbial Biotechnology*. Springer Singapore, Singapore, hal. 455–482.
- Ammerman, N.C., Beier-Sexton, M., dan Azad, A.F., 2008. Growth and Maintenance of Vero Cell Lines. *Current Protocols in Microbiology*, **11**: .
- Amorim, R.V.S., Ledingham, W.M., Kennedy, J.F., dan Campos-Takaki, G.M., 2006. Chitosan from *Syncephalastrum racemosum* Using Sugar Cane Substrates as Inexpensive Carbon Sources. *Food Biotechnology*, **20**: 43–53.
- Andarwulan, N., Yuliana, N.D., Hasna, E., Aziz, S.A., dan Davis, T.D., 2014. Comparative Analysis of Three Torbangun Clones (*Plectranthus amboinicus* (Lour.) Spreng) Based on Phenotypic Characteristics and Phenolic Content. *American Journal of Plant Sciences*, **05**: 3673–3683.
- Anisha, C. dan Radhakrishnan, E.K., 2017. Metabolite analysis of endophytic fungi from cultivars of *Zingiber officinale* Rosc. identifies myriad of bioactive compounds including tyrosol. *3 Biotech*, **7**: 146.
- Arumugam, G., Swamy, M., dan Sinniah, U., 2016. *Plectranthus amboinicus* (Lour.) Spreng: Botanical, Phytochemical, Pharmacological and Nutritional Significance. *Molecules*, **21**: 369.

- Aslam, S., Tahir, A., Aslam, M.F., Alam, M.W., Shedayi, A.A., dan Sadia, S., 2017. Recent advances in molecular techniques for the identification of phytopathogenic fungi – a mini review. *Journal of Plant Interactions*, **12**: 493–504.
- Astuti, P., Aryantini, D., Eden, W.E., dan Wahyuono, 2017. Pharmaceutical microbiology and biotechnology cultural conditions affect the growth of endophytic fungi *Aspergillus fumigatus* and improve its total and bioactive metabolite production. *Research Journal of Pharmaceutical Biological and Chemical Sciences*, **8**: 1770–8.
- Astuti, P., Rollando, R., Wahyuono, S., dan Nurrochmad, A., 2020. Antimicrobial activities of isoprene compounds produced by an endophytic fungus isolated from the leaves of *Coleus amboinicus* Lour. *Journal of Pharmacy & Pharmacognosy Research*, **8**: 280–9.
- Astuti, P., Sudarsono, S., Nisak, K., dan Nugroho, G.W., 2014. Endophytic Fungi Isolated from *Coleus amboinicus* Lour Exhibited Antimicrobial Activity. *Advanced Pharmaceutical Bulletin; eISSN 2251-7308*, .
- ATCC, 2019. 'HeLa ATCC® CCL-2™', *ATCC Credible leads to Incredible*. URL: <https://www.atcc.org/products/all/CCL-2.aspx#characteristics> (diakses tanggal 23/7/2019).
- ATCC, 2020a. 'MCF-7 ATCC® HTB-22™', . URL: <https://www.atcc.org/products/all/htb-22.aspx#generalinformation> (diakses tanggal 22/2/2021).
- ATCC, 2020b. 'T47D ATCC ® HTB-133™', *T-47D (ATCC® HTB-133™)*. URL: <https://www.atcc.org/products/all/HTB-133.aspx#generalinformation> (diakses tanggal 25/2/2021).
- ATCC, 2020c. 'WiDr ATCC ® CCL-218™', . URL: <https://www.atcc.org/products/all/CCL-218.aspx#characteristics> (diakses tanggal 26/2/2021).
- Balouiri, M., Sadiki, M., dan Ibensouda, S.K., 2016. Methods for in vitro evaluating antimicrobial activity: A review. *Journal of Pharmaceutical Analysis*, **6**: 71–79.
- Bañuelos-Hernández, A.E., Azadniya, E., Ramírez Moreno, E., dan Morlock, G.E., 2020. Bioprofiling of Mexican *Plectranthus amboinicus* (Lour.) essential oil via planar chromatography–effect-directed analysis combined with direct analysis in real time high-resolution mass spectrometry. *Journal of Liquid Chromatography & Related Technologies*, **43**: 344–350.

- Barnett, H.L. dan Hunter, B.B., 1998. *Illustrated Genera of Imperfect Fungi*, 5th. ed. Prentice-Hall Inc., USA.
- Benjamin, R.K., 1966. The Merosporangium. *Mycologia*, **58**: 1–42.
- Bezerra, R. de C. de F., Neto, F.B. de O., Silva, F.F.M. da, Bertini, L.M., dan Alves, L.A., 2017. Seasonal effect in essential oil composition and antioxidant activity of *Plectranthus amboinicus* leaves. *Bioscience Journal*, 1608–1616.
- Bhatia, D.R., Dhar, P., Mutalik, V., Deshmukh, S.K., Verekar, S.A., Desai, D.C., dkk., 2016. Anticancer activity of Ophiobolin A, isolated from the endophytic fungus *Bipolaris setariae*. *Natural Product Research*, **30**: 1455–1458.
- Bhatt, P., Joseph, G.S., Negi, P.S., dan Varadaraj, M.C., 2013. Chemical Composition and Nutraceutical Potential of Indian Borage (*Plectranthus amboinicus*) Stem Extract. *Journal of Chemistry*, **2013**: 1–7.
- Bolívar-Anillo, H.J., Garrido, C., dan Collado, I.G., 2020. Endophytic microorganisms for biocontrol of the phytopathogenic fungus *Botrytis cinerea*. *Phytochemistry Reviews*, **19**: 721–740.
- Budiono, B., Elfita, E., Muharni, M., Yohandini, H., dan Widjajanti, H., 2019. Antioxidant Activity of *Syzygium samarangense* L. and Their Endophytic Fungi. *Molekul*, **14**: 48.
- Campos, R.P.C., Jacob, J.K.S., Ramos, H.C., dan Temanel, F.B., 2020. Mycopharmacological Properties of Endophytic Fungi Isolated from Cuban Oregano (*Plectranthus amboinicus* Lour.) Leaves. *Asian Journal of Biological and Life sciences*, **8**: 103–110.
- Carvalho, A.L. de A., de Rezende, L.C., Bertoldo Costa, L., Halfeld-Vieira, B. de A., Vegette Pinto, Z., Boechat Morandi, M.A., dkk., 2018. Optimizing the mass production of *Clonostachys rosea* by liquid-state fermentation. *Biological Control*, **118**: 16–25.
- Carvalho, S.D. dan Castillo, J.A., 2018. Influence of Light on Plant–Phyllosphere Interaction. *Frontiers in Plant Science*, **9**: 1482.
- Chandra, S., 2012. Endophytic fungi: novel sources of anticancer lead molecules. *Applied Microbiology and Biotechnology*, **95**: 47–59.
- Chaudhari, S. dan Gokhale, D., 2016. Phenyllactic Acid: A Potential Antimicrobial Compound in Lactic acid Bacteria. *Journal of Bacteriology & Mycology: Open Access*, **2**: .

- Chen, T.R., Drabkowski, D., Hay, R.J., Macy, M., dan Peterson, W., 1987. WiDr is a derivative of another colon adenocarcinoma cell line, HT-29. *Cancer Genetics and Cytogenetics*, **27**: 125–134.
- Chithra, S., Jasim, B., Anisha, C., Mathew, J., dan Radhakrishnan, E.K., 2014. LC-MS/MS Based Identification of Piperine Production by Endophytic *Mycosphaerella* sp. PF13 from *Piper nigrum*. *Applied Biochemistry and Biotechnology*, **173**: 30–35.
- Colley, T., Alanio, A., Kelly, S.L., Sehra, G., Kizawa, Y., Warrilow, A.G.S., dkk., 2017. In Vitro and In Vivo Antifungal Profile of a Novel and Long-Acting Inhaled Azole, PC945, on *Aspergillus fumigatus* Infection. *Antimicrobial Agents and Chemotherapy*, **61**: e02280-16, e02280-16.
- Dailey Jr, O.D., Wang, X., Chen, F., dan Huang, G., 2011. Anticancer Activity of Branched-chain Derivatives of Oleic Acid. *ANTICANCER RESEARCH*, **5**.
- De Paula, K.B., 2018. Calcium hypochlorite solutions — An in vitro evaluation of antimicrobial action and pulp dissolution. *European Endodontic Journal*, .
- de Torre, M.P., Cavero, R.Y., Calvo, M.I., dan Vizmanos, J.L., 2019. A Simple and a Reliable Method to Quantify Antioxidant Activity In Vivo. *Antioxidants*, **8**: 142.
- DeFilippis, R.A., Goodwin, E.C., Wu, L., dan DiMaio, D., 2003. Endogenous Human Papillomavirus E6 and E7 Proteins Differentially Regulate Proliferation, Senescence, and Apoptosis in HeLa Cervical Carcinoma Cells. *Journal of Virology*, **77**: 1551–1563.
- Devari, S., Jaglan, S., Kumar, M., Deshidi, R., Guru, S., Bhushan, S., dkk., 2014. Capsaicin production by *Alternaria alternata*, an endophytic fungus from *Capsicum annum*; LC–ESI–MS/MS analysis. *Phytochemistry*, **98**: 183–189.
- Djinni, I., Defant, A., Kecha, M., dan Mancini, I., 2014. Metabolite profile of marine-derived endophytic *Streptomyces sundarbansensis* WR1L1S8 by liquid chromatography–mass spectrometry and evaluation of culture conditions on antibacterial activity and mycelial growth. *Journal of Applied Microbiology*, **116**: 39–50.
- Domsch, K.H., Gams, W., dan Anderson, T.H., 1998. *Compendium of Soil Fungi*. Academic Press, London.
- Dzoyem, J.P., Melong, R., Tsamo, A.T., Maffo, T., Kapche, D.G.W.F., Ngadjui, B.T., dkk., 2017. Cytotoxicity, antioxidant and antibacterial activity of four compounds produced by an endophytic fungus *Epicoccum nigrum* associated with *Entada abyssinica*. *Revista Brasileira de Farmacognosia*, **27**: 251–253.

- Efendi, Y.N. dan Hertiani, T., 2013. Antimicrobial potency of ant-plant extract (*Myrmecodia tuberosa* Jack.) against *Candida albicans*, *Escherichia coli*, and *Staphylococcus aureus*. *Trad. Med. J.*, **18**: 55–8.
- Elango, D., Manikandan, V., Jayanthi, P., Velmurugan, P., Balamuralikrishnan, B., Ravi, A.V., dkk., 2020. Selection and characterization of extracellular enzyme production by an endophytic fungi *Aspergillus sojae* and its bio-efficacy analysis against cotton leaf worm, *Spodoptera litura*. *Current Plant Biology*, **23**: 100153.
- El-Hawary, S.S., Mohammed, R., AbouZid, S.F., Bakeer, W., Ebel, R., Sayed, A.M., dkk., 2016. Solamargine production by a fungal endophyte of *Solanum nigrum*. *Journal of Applied Microbiology*, **120**: 900–911.
- Ellis, M.B., 1971. *Dematiaceous Hyphomycetes*. Commonwealth Mycological Institute, England.
- Estrela, C., Estrela, C.R.A., Barbin, E.L., Spanó, J.C.E., Marchesan, M.A., dan Pécora, J.D., 2002. Mechanism of action of sodium hypochlorite. *Brazilian Dental Journal*, **13**: 113–117.
- Gagana, S.L., Kumaraswamy, B.E., dan Shivanna, M.B., 2020. Diversity, antibacterial and antioxidant activities of the fungal endophytes associated with *Schleichera oleosa* (Lour.) Merr. *South African Journal of Botany*, **134**: 369–381.
- Gandjar, I. dan Rohman, A., 2007. *Kimia Farmasi Analisis*. Pustaka Pelajar, Yogyakarta.
- Gnanamani, A., Hariharan, P., dan Satyaseela, M.P., 2017. *Staphylococcus aureus* : Overview of Bacteriology, Clinical Diseases, Epidemiology, Antibiotic Resistance and Therapeutic Approach, dalam: *Frontiers in Staphylococcus Aureus*. IntechOpen, United Kingdom, hal. 26.
- Gómez, O.C. dan Luiz, J.H.H., 2018. Endophytic fungi isolated from medicinal plants: future prospects of bioactive natural products from *Tabebuia/Handroanthus* endophytes. *Applied Microbiology and Biotechnology*, **102**: 9105–9119.
- Gouda, S., Das, G., Sen, S.K., Shin, H.-S., dan Patra, J.K., 2016. Endophytes: A Treasure House of Bioactive Compounds of Medicinal Importance. *Frontiers in Microbiology*, **7**: 1–8.
- Govindaraju, S. dan Arulselvi, P.I., 2018. Characterization of *Coleus aromaticus* essential oil and its major constituent carvacrol for *in vitro* antidiabetic and antiproliferative activities. *Journal of Herbs, Spices & Medicinal Plants*, **24**: 37–51.

- Grosset, J.H. dan Singer, T., 2013. Streptomycin, dalam: *Brenner's Encyclopedia of Genetics*. Elsevier, hal. 568–569.
- Hashem, A.H., Suleiman, W.B., Abu-elreesh, G., Shehabeldine, A.M., dan Khalil, A.M.A., 2020. Sustainable lipid production from oleaginous fungus *Syncephalastrum racemosum* using synthetic and watermelon peel waste media. *Bioresource Technology Reports*, **12**: 100569.
- Hawkworth, D.L., 1974. *Mycologist Handbook: An Introduction to the Principles of Taxonomy and Nomenclature in the Fungi and Lichens*. Commonwealth Mycological Institute, England.
- Hidayat, M.A., Fitri, A., dan Kuswandi, B., 2017. Scanometry as microplate reader for high throughput method based on DPPH dry reagent for antioxidant assay. *Acta Pharmaceutica Sinica B*, **7**: 395–400.
- Hillmann, P., Schmitz, D., Mestan, J., D'Alonzo, S., dan Fabbro, D., 2017. 5.01 - Cancer Biology and the Principles of Targeted Cancer Drug Discovery, dalam: Chackalamannil, S., Rotella, D., dan Ward, S.E. (Editor), *Comprehensive Medicinal Chemistry III*. Elsevier, Oxford, hal. 1–38.
- Hiraishi, A., Kamagata, Y., dan Nakamura, K., 1995. Polymerase chain reaction amplification and restriction fragment length polymorphism analysis of 16S rRNA genes from methanogens. *Journal of Fermentation and Bioengineering*, **79**: 523–529.
- Hsu, K.-P. dan Ho, C.-L., 2019. Antimildew Effects of *Plectranthus amboinicus* Leaf Essential Oil on Paper. *Natural Product Communications*, **14**: 1934578X1986290.
- Huang, W.-K., Cui, J.-K., Liu, S.-M., Kong, L.-A., Wu, Q.-S., Peng, H., dkk., 2016. Testing various biocontrol agents against the root-knot nematode (*Meloidogyne incognita*) in cucumber plants identifies a combination of *Syncephalastrum racemosum* and *Paecilomyces lilacinus* as being most effective. *Biological Control*, **92**: 31–37.
- Huang, W.-K., Sun, J.-H., Cui, J.-K., Wang, G.-F., Kong, L.-A., Peng, H., dkk., 2014. Efficacy Evaluation of Fungus *Syncephalastrum racemosum* and Nematicide Avermectin against the Root-Knot Nematode *Meloidogyne incognita* on Cucumber. *PLoS ONE*, **9**: e89717.
- Hughes, D. dan Mehmet, H., 2003. *Cell Proliferation & Apoptosis*. BIOS Scientific Publishers, Oxford.
- Ibrahim, M., Kaushik, N., Sowemimo, A., Chhipa, H., Koekemoer, T., van de Venter, M., dkk., 2017. Antifungal and antiproliferative activities of

endophytic fungi isolated from the leaves of *Markhamia tomentosa*. *Pharmaceutical Biology*, **55**: 590–595.

Islami, D., Teruna, H.Y., dan Eryanti, Y., 2019. Antioxidant and Antibacterial Activity of *Plectranthus amboinicus* Leaf Extract. *Jurnal Natur Indonesia*, **17**: 10.

Ismail, A.A., Ahmed, A.S., Hassan, I.A., El-Sayed, E.-S.R., dan Karam El-Din, A.-Z.A., 2017. Production of paclitaxel with anticancer activity by two local fungal endophytes, *Aspergillus fumigatus* and *Alternaria tenuissima*. *Applied Microbiology and Biotechnology*, **101**: 5831–5846.

Jackman, J., 2012. The Microbe: The Basics of Structure, Morphology, and Physiology as They Relate to Microbial Characterization and Attribution, dalam: Cliff, J.B., Kreuzer, H.W., Ehrhardt, C.J., dan Wunschel, D.S. (Editor), *Chemical and Physical Signatures for Microbial Forensics*. Springer New York, New York, NY, hal. 13–34.

Joshi, R., Sharma, V., dan Kuila, A., 2018. Fermentation Technology: Current Status and Future Prospects, dalam: Kuila, A. dan Sharma, V. (Editor), *Principles and Applications of Fermentation Technology*. John Wiley & Sons, Inc., Hoboken, NJ, USA, hal. 1–13.

Kasanah, N., Amelia, W., Mukminin, A., Triyanto, dan Isnansetyo, A., 2019. Antibacterial activity of Indonesian red algae *Gracilaria edulis* against bacterial fish pathogens and characterization of active fractions **33**: 3303–3307.

Khan, M.C.P.I., 2013. *Current Trends in Coleus Aromaticus: An Important Medicinal Plant*. Booktango.

Kim, H., Son, H., dan Lee, Y.-W., 2014. Effects of light on secondary metabolism and fungal development of *Fusarium graminearum*. *Journal of Applied Microbiology*, **116**: 380–389.

Kuete, V., Karaosmanog˘lu, O., dan Sivas, H., 2017. Chapter 10 - Anticancer Activities of African Medicinal Spices and Vegetables, dalam: *Medicinal Spices and Vegetables from Africa*. Mica Haley, United Kindom, hal. 271–297.

Kuncoro, H., 2016. Mini Review Jamur endofit, biodiversitas, potensi dan prospek. *Tropical Pharmacy and Chemistry*, **1**: 250–265.

Ladesvita, F., Sucipto, U., Lisnawati, K., Santi, R.D., dan Pratiwi, C.J., 2021. *Asuhan Keperawatan Onkologi Berdasarkan Teori Virginia Henderson*. Nas Media Pustaka.

Leba, M.A.U., 2017. *Buku Ajar: Ekstraksi dan Real Kromatografi*. Deepublish.

- Lee, A.V., Oesterreich, S., dan Davidson, N.E., 2015. MCF-7 Cells--Changing the Course of Breast Cancer Research and Care for 45 Years. *JNCI Journal of the National Cancer Institute*, **107**: djv073–djv073.
- Leulmi, N., Sighel, D., Defant, A., Khenaka, K., Boulahrouf, A., dan Mancini, I., 2019. Enhanced Production and Quantitative Evaluation of Nigericin from the Algerian Soil-Living *Streptomyces youssoufiensis* SF10 Strain. *Fermentation*, **5**: 13.
- Li, L., Zhang, X., Tan, X., Sun, B., Wu, B., Yu, M., dkk., 2019. Rhinoclactones A-E, Resorcylic Acid Analogs from Desert Plant Endophytic Fungus *Rhinocladiella similis*. *Molecules*, **24**: 1405.
- Liu, D., 2015. Chapter 64 Diarrhoeagenic *Escherichia coli*, dalam: *Molecular Medical Microbiology*. Academic Press Elsevier, United Kindom.
- Liu, F., Wang, F., Du, L., Zhao, T., Doyle, M.P., Wang, D., dkk., 2018. Antibacterial and antibiofilm activity of phenyllactic acid against *Enterobacter cloacae*. *Food Control*, **84**: 442–448.
- Lu, Z., Guo, W., dan Liu, C., 2018. Isolation, identification and characterization of novel *Bacillus subtilis*. *Journal of Veterinary Medical Science*, **80**: 427–433.
- Lukhoba, C.W., Simmonds, M.S.J., dan Paton, A.J., 2006. Plectranthus: A review of ethnobotanical uses. *Journal of Ethnopharmacology*, **103**: 1–24.
- McCorison, C.B. dan Goodwin, S.B., 2020. The wheat pathogen *Zymoseptoria tritici* senses and responds to different wavelengths of light. *BMC Genomics*, **21**: 513.
- McDonnell, G. dan Russell, A.D., 1999. Antiseptics and Disinfectants: Activity, Action, and Resistance. *Clinical Microbiology Reviews*, **12**: 147–179.
- Melkoumov, A., Goupil, M., Louhichi, F., Raymond, M., de Repentigny, L., dan Leclair, G., 2013. Nystatin nanosizing enhances in vitro and in vivo antifungal activity against *Candida albicans*. *Journal of Antimicrobial Chemotherapy*, **68**: 2099–2105.
- Minarni, Artika, I.M., Julistiono, H., Bermawie, N., Riyanti, E.I., Hasim, dkk., 2017. Anticancer activity test of ethyl acetate extract of endophytic fungi isolated from soursop leaf (*Annona muricata* L.). *Asian Pacific Journal of Tropical Medicine*, **10**: 566–571.
- Molnár, Z., Virág, E., dan Ördög, V., 2011. Natural substances in tissue culture media of higher plants. *Acta Biologica Szegediensis*, **55**: 123–127.

- Momparber, R.L., Karon, M., Siegel, S.E., dan Avila, F., 1976. Effect of Adriamycin on DNA, RNA, and Protein Synthesis in Cell-free Systems and Intact Cells. *Cancer Research*, **36**: 2891–5.
- Monzote, L., Scherbakov, A.M., Scull, R., Gutiérrez, Y.I., Satyal, P., Cos, P., dkk., 2020. Pharmacological Assessment of the Carvacrol Chemotype Essential Oil From *Plectranthus amboinicus* Growing in Cuba. *Natural Product Communications*, **15**: 1934578X20962233.
- Murugan, K.K., Poojari, C.C., Ryavalad, C., Lakshmikan, R.Y., Satwadi, P.R., Vittal, R.R., dkk., 2017. Anti-diabetic Activity of Endophytic Fungi, *Penicillium* Species of *Tabebuia argentea*; in Silico and Experimental Analysis. *Research Journal of Phytochemistry*, **11**: 90–110.
- Mustarichie, R., Runadi, D., dan Ramdhani, D., 2017. The antioxidant activity and phytochemical screening of ethanol extract, fractions of water, ethyl acetate and n-hexane from Mistletoe tea (*Scurrula atropurpurea* BL. Dans). *Asian Journal of Pharmaceutical and Clinical Research*, **10**: 343.
- Na'imah, J., 2020. Bab IV Ekstraksi tanpa pemanasan, dalam: *Pengantar fitokimia: d3 farmasi*. Penerbit qiara media. Pasuruan, Jawa Timur.
- Nasichah, A.Z., Hastuti, U.S., Suarsini, E., dan Rohman, F., 2016. Identifikasi Morfologi Kapang Endofit Cengkeh Afo dari Ternate. *Proceeding Biology Education Conference*, **13**: 787–792.
- NCBI, 2021. 'Taxonomy browser (*Syncephalastrum racemosum*)', *NCBI Taxonomy Browser*. URL: <https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?lvl=0&id=13706> (diakses tanggal 21/2/2021).
- Nisa, H., Kamili, A.N., Nawchoo, I.A., Shafi, S., Shameem, N., dan Bandh, S.A., 2015. Fungal endophytes as prolific source of phytochemicals and other bioactive natural products: A review. *Microbial Pathogenesis*, **82**: 50–59.
- O'Donnel, K., 1993. *Fusarium and its near relatives*, dalam: Reynolds, D. dan Taylor, J. (Editor), *The Fungal Holomorph: Mitotic, Meiotic and Pleomorphic Speciation in Fungal Systematics*. CAB International, Wallingford, United Kingdom, hal. 225–233.
- Palanichamy, P., Krishnamoorthy, G., Kannan, S., dan Marudhamuthu, M., 2018. Bioactive potential of secondary metabolites derived from medicinal plant endophytes. *Egyptian Journal of Basic and Applied Sciences*, **5**: 303–312.
- Palem, P.P.C., Kuriakose, G.C., dan Jayabaskaran, C., 2015. An Endophytic Fungus, *Talaromyces radicus*, Isolated from *Catharanthus roseus*, Produces

Vincristine and Vinblastine, Which Induce Apoptotic Cell Death. *PLoS ONE*, **10**: e0144476.

Pansanit, A. dan Pripdeevech, P., 2018. Antibacterial secondary metabolites from an endophytic fungus, *Arthrinium* sp. MFLUCC16-1053 isolated from *Zingiber cassumunar*. *Mycology*, **9**: 264–272.

Poole, C., 2011. Thin layer chromatography, dalam: *Clarke's Analysis of Drugs and Poisons: In Pharmaceuticals, Body Fluids and Postmortem Material*. Pharmaceutical Press, London ; Chicago, hal. 600–635.

Prabavathy, D. dan Vally, N.C., 2013. Antimicrobial and antidiabetic activity of an endophytic fungi isolated from *Adathoda beddomei*. *International Journal of Pharmacy and Pharmaceutical Sciences*, **5**: 780–3.

Prasad, R. (Editor), 2017. *Candida Albicans: Cellular and Molecular Biology*, 2nd ed. Springer International Publishing, India.

PubChem, 2021a. 'Dextrose', . URL: <https://pubchem.ncbi.nlm.nih.gov/compound/66370> (diakses tanggal 1/2/2021).

PubChem, 2021b. 'Methyl (Z)-octadec-9-enoate;(Z)-2-methyloctadec-9-enoic acid', *Pubchem: Compound Summary Methyl Oleate*. URL: <https://pubchem.ncbi.nlm.nih.gov/compound/87397441> (diakses tanggal 8/3/2021).

PubChem, 2021c. 'Methyl palmitate', *Pubchem: Compound Summary Methyl Palmitate*. URL: <https://pubchem.ncbi.nlm.nih.gov/compound/8181> (diakses tanggal 8/3/2021).

Pyne, M.E., Narcross, L., dan Martin, V.J.J., 2019. Engineering Plant Secondary Metabolism in Microbial Systems. *Plant Physiology*, **179**: 844–861.

Rai, V., Pai, V., dan Kedilaya, P., 2016. A preliminary evaluation of anticancer and antioxidant potential of two traditional medicinal plants from Lamiaceae - *Pogostemon heyneanus* and *Plectranthus amboinicus*. *Journal of Applied Pharmaceutical Science*, 073–078.

Rai, Y., Pathak, R., Kumari, N., Sah, D.K., Pandey, S., Kalra, N., dkk., 2018. Mitochondrial biogenesis and metabolic hyperactivation limits the application of MTT assay in the estimation of radiation induced growth inhibition. *Scientific Reports*, **8**: 1531.

Rajivgandhi, G., Muneeswaran, T., Maruthupandy, M., Ramakritinan, C.M., Saravanan, K., Ravikumar, V., dkk., 2018. Antibacterial and anticancer potential of marine endophytic actinomycetes *Streptomyces coeruleorubidus* GRG 4 (KY457708) compound against colistin resistant

uropathogens and A549 lung cancer cells. *Microbial Pathogenesis*, **125**: 325–335.

Rajivgandhi, G., Ramachandran, G., Chenthis Kanisha, C., Li, J.-L., Yin, L., Manoharan, N., dkk., 2020. Anti-biofilm compound of 1, 4-diaza-2, 5-dioxo-3-isobutyl bicyclo[4.3.0]nonane from marine *Nocardiosis* sp. DMS 2 (MH900226) against biofilm forming *K. pneumoniae*. *Journal of King Saud University - Science*, **32**: 3495–3502.

Rajivgandhi, G., Ramachandran, G., Maruthupandy, M., Vaseeharan, B., dan Manoharan, N., 2019. Molecular identification and structural characterization of marine endophytic actinomycetes *Nocardiosis* sp. GRG 2 (KT 235641) and its antibacterial efficacy against isolated ESBL producing bacteria. *Microbial Pathogenesis*, **11**.

Reyna-Beltrán, E., Isaac Bazán Méndez, C., Iranzo, M., Mormeneo, S., dan Pedro Luna-Arias, J., 2019. The Cell Wall of *Candida albicans*: A Proteomics View, dalam: Sandai, D. (Editor), *Candida Albicans*. IntechOpen.

Riss, T.L., Moravec, R.A., Niles, A.L., Benink, H.A., Worzella, T.J., dan Minor, L., 2016. *Assay Guidance Manual : Cell Viability Assays*. U.S National Library of Medicine.

Rohman, A., 2018. *Validasi Penjaminan Mutu Metode Analisis Kimia*. UGM PRESS.

Rosita, A.T., Wijayanti, T.R., Widayanti, E., dan Hermawan, A., 2019. 'Sel HeLa | CCRC', *CCRC- Cancer Chemoprevention Research Center*. URL: http://ccrc.farmasi.ugm.ac.id/?page_id=1224 (diakses tanggal 23/7/2019).

Rutala, W.A., 2008. Guideline for Disinfection and Sterilization in Healthcare Facilities, 2008 163.

Sadeer, N.B., Montesano, D., Albrizio, S., Zengin, G., dan Mahomoodally, M.F., 2020. The Versatility of Antioxidant Assays in Food Science and Safety—Chemistry, Applications, Strengths, and Limitations. *Antioxidants*, **9**: 709.

Samson, R.A., Hoekstra, E.S., Frisvad, J.C., dan Filtenborg, O., 1995. *Introduction to Food Borne Fungi*, 4th ed. Ponsen & Looyen, Netherlands.

Satria, D., Hasibuan, P.A.Z., dan Sitorus, P., 2017. Anticancer Activity Of β -Sitosterol From *Plectranthus Amboinicus* (Lour. Spreng.) Leaves: In Vitro And In Silico Studies. *Asian Journal of Pharmaceutical and Clinical Research*, **10**: 306.

Scott, R.P., 2010. Gas Chromatography-Mass Spectrometry Systems, dalam: Cazes, J. (Editor), *Encyclopedia of Chromatography*. CRC Press, New York.

- Seetharaman, P., Gnanasekar, S., Chandrasekaran, R., Chandrakasan, G., Kadarkarai, M., dan Sivaperumal, S., 2017. Isolation and characterization of anticancer flavone chrysin (5,7-dihydroxy flavone)-producing endophytic fungi from *Passiflora incarnata* L. leaves. *Annals of Microbiology*, **67**: 321–331.
- Setiawati, A., 2016. Celecoxib, a COX-2 Selective Inhibitor, Induces Cell Cycle Arrest at the G2/M Phase in HeLa Cervical Cancer Cells. *Asian Pacific Journal of Cancer Prevention*, **17**: 1655–1659.
- Sharma, M., Kansal, R., dan Singh, D., 2018. Endophytic Microorganisms: Their Role in Plant Growth and Crop Improvement, dalam: *Crop Improvement Through Microbial Biotechnology*. Elsevier, hal. 391–413.
- Sianipar, N.F., Assidqi, K., Purnamaningsih, R., dan Herlina, T., 2019. In Vitro Cytotoxic Activity of Rodent Tuber Mutant Plant (Typhonium flagelliforme Lodd.) againts to MCF-7 Breast Cancer Cell Line. *Asian Journal of Pharmaceutical and Clinical Research*, 185–189.
- Silverstein, R.M., Webster, F.X., dan Kiemle, D.J., 2005. *Spectrometric Identification of Organic Compounds*, 7th edition. ed. John Wiley & Sons, Inc., USA.
- Singh, B.P. (Editor), 2019. *Advances in Endophytic Fungal Research: Present Status and Future Challenges*, Fungal Biology. Springer International Publishing, Cham.
- Singh, M. dan Singh, N., 2020. Chapter 16 DNA Barcoding for Species Identification in Genetically Engineered Fungi, dalam: Hesham, A.E.-L., Upadhyay, R.S., Sharma, G.D., Manoharachary, C., dan Gupta, V.K. (Editor), *Fungal Biotechnology and Bioengineering, Fungal Biology*. Springer International Publishing, Cham, hal. 371–396.
- Soliman, S.S.M. dan Raizada, M.N., 2018. Darkness: A Crucial Factor in Fungal Taxol Production. *Frontiers in Microbiology*, **9**: 353.
- Sorrentino, E., Tremonte, P., Succi, M., Iorizzo, M., Pannella, G., Lombardi, S.J., dkk., 2018. Detection of antilisterial activity of 3-Phenyllactic Acid using *Listeria innocua* as a model. *Frontiers in Microbiology*, **9**: 9.
- Soule, H.D., Vazquez, J., Long, A., Albert, S., dan Brennan, M., 1973. A Human Cell Line From a Pleural Effusion Derived From a Breast Carcinoma 2. *JNCI: Journal of the National Cancer Institute*, **51**: 1409–1416.
- Stanbury, P.F., Whitaker, A., dan Hall, S.J., 2017. *Principles of Fermentation Technology*, Third edition. ed. Butterworth-Heinemann, an imprint of Elsevier, Amsterdam.

- Stierle, A., Strobel, G., dan Stierle, D., 1993. Taxol and Taxane production by *Taxomyces andreanae*, an endophytic fungus of Pacific yew. *Science*, **260**: 214–6.
- Stone, J.K., Polishook, J.D., dan White, J.F., 2004. Endophytic Fungi, dalam: *Biodiversity of Fungi: Inventory and Monitoring Methods, Chapter 12 Endophytic Fungi*. Elsevier Academic Press, USA, hal. 241–270.
- Strobel, G. dan Daisy, B., 2003. Bioprospecting for Microbial Endophytes and Their Natural Products. *Microbiology and Molecular Biology Reviews*, **67**: 491–502.
- Sun, J., Wang, H., Lu, F., Du, L., dan Wang, G., 2008. The efficacy of nematicidal strain *Syncephalastrum racemosum*. *Annals of Microbiology*, **58**: 369–373.
- Suzuki, Y., Kosaka, M., Shindo, K., Kawasumi, T., Kimoto-Nira, H., dan Suzuki, C., 2013. Identification of Antioxidants Produced by *Lactobacillus plantarum*. *Bioscience, Biotechnology, and Biochemistry*, **77**: 1299–1302.
- Swamy, M.K., Arumugam, G., Kaur, R., Ghasemzadeh, A., Yusoff, M.Mohd., dan Sinniah, U.R., 2017. GC-MS Based Metabolite Profiling, Antioxidant and Antimicrobial Properties of Different Solvent Extracts of Malaysian *Plectranthus amboinicus* Leaves. *Evidence-Based Complementary and Alternative Medicine*, **2017**: 1–10.
- Talapatra, K., Roy Das, A., Saha, A.K., dan Das, p., 2017. In vitro antagonistic activity of a root endophytic fungus towards plant pathogenic fungi. *Journal of Applied Biology & Biotechnology*, **5**: 68–71.
- Tanvir, R., Javeed, A., dan Rehman, Y., 2018. Fatty acids and their amide derivatives from endophytes: new therapeutic possibilities from a hidden source. *FEMS Microbiology Letters*, **365**: .
- Tasaki, S., Nakayama, M., dan Shoji, W., 2017. Morphologies of *Bacillus subtilis* communities responding to environmental variation. *Development, Growth & Differentiation*, **59**: 369–378.
- Thangam, R., Gokul, S., Sathuvan, M., Suresh, V., dan Sivasubramanian, S., 2019. A novel antioxidant rich compound 2-hydroxy 4-methylbenzaldehyde from *Decalepis arayalpathra* induces apoptosis in breast cancer cells. *Biocatalysis and Agricultural Biotechnology*, **21**: 101339.
- Thorati, M., Mishra, J.K., dan Kumar, S., 2016. Isolation, Identification of Endophytic Fungi from Mangrove Roots along the Coast of South Andaman Sea, Andaman and Nicobar Islands, India. *Journal of Marine Biology & Oceanography*, **5**: .

- Tilwari, A. dan Dixit, P., 2018. Isolation and screening of endophytic fungus from medicinal plant *Saraca asoca* for antibacterial activity. *J Pharmacogn Phytochem*, **7**: 351–4.
- UniProt, 2021. '*Syncephalastrum racemosum* (Filamentous fungus)', *Taxonomy - Syncephalastrum racemosum (Filamentous fungus)*. URL: <https://www.uniprot.org/taxonomy/13706> (diakses tanggal 21/2/2021).
- USDA, 2021. 'USDA PLANTS: Classification for Kingdom Plantae Down to Species *Plectranthus amboinicus* (Lour.) Spreng.', *USDA Plants Database*. URL: <https://plants.usda.gov/java/ClassificationServlet?source=display&classid=PLAM2> (diakses tanggal 2/3/2021).
- Ushasri, R. dan Anusha, R., 2015. In vitro anti-diabetic activity of ethanolic and acetone extracts of endophytic fungi *Syncephalastrum racemosum* isolated from the seaweed *Gracilaria corticata* by alpha-amylase inhibition assay method 6.
- Vasconcelos, S.E.C.B., Melo, H.M., Cavalcante, T.T.A., Júnior, F.E.A.C., de Carvalho, M.G., Menezes, F.G.R., dkk., 2017. *Plectranthus amboinicus* essential oil and carvacrol bioactive against planktonic and biofilm of oxacillin- and vancomycin-resistant *Staphylococcus aureus*. *BMC Complementary and Alternative Medicine*, **17**: 462.
- Vasundhara, M., Baranwal, M., dan Kumar, A., 2016. *Fusarium tricinctum*, An Endophytic Fungus Exhibits Cell Growth Inhibition and Antioxidant Activity. *Indian Journal of Microbiology*, **56**: 433–438.
- Veiga, A., Toledo, M. da G.T., Rossa, L.S., Mengarda, M., Stofella, N.C.F., Oliveira, L.J., dkk., 2019. Colorimetric microdilution assay: Validation of a standard method for determination of MIC, IC50%, and IC90% of antimicrobial compounds. *Journal of Microbiological Methods*, **162**: 50–61.
- Vu, D., Groenewald, M., de Vries, M., Gehrmann, T., Stielow, B., Eberhardt, U., dkk., 2019. Large-scale generation and analysis of filamentous fungal DNA barcodes boosts coverage for kingdom fungi and reveals thresholds for fungal species and higher taxon delimitation. *Studies in Mycology*, **92**: 135–154.
- Wadikar, D.D. dan Patki, P.E., 2016. *Coleus aromaticus*: a therapeutic herb with multiple potentials. *Journal of Food Science and Technology*, **53**: 2895–2901.

- Wang, Y., Xiang, L., Huang, Y., Yi, X., dan He, X., 2019. Microbial transformation of laxogenin by the fungus *Syncephalastrum racemosum*. *Tetrahedron*, **75**: 1440–1449.
- Wang, Z., Liang, C., Li, G., Yu, C., dan Yin, M., 2007. Stearic acid protects primary cultured cortical neurons against oxidative stress. *Acta Pharmacologica Sinica*, **28**: 315–326.
- Watson, D., 2011. Mass Spectrometry, dalam: *Clarke's Analysis of Drugs and Poisons: In Pharmaceuticals, Body Fluids and Postmortem Material*. Pharmaceutical Press, London ; Chicago, hal. 577–593.
- Webster, J., 1980. *Introduction To Fungi*, 2nd ed. Cambridge University Press, Melbourne.
- Wei, W., Zhou, Y., Chen, F., Yan, X., Lai, Y., Wei, C., dkk., 2018. Isolation, Diversity, and Antimicrobial and Immunomodulatory Activities of Endophytic Actinobacteria From Tea Cultivars Zijuan and Yunkang-10 (*Camellia sinensis* var. *assamica*). *Frontiers in Microbiology*, **9**: 1304.
- White, T., Bruns, T., Lee, S., dan Taylor JW, 1990. Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics, dalam: Innis, M., Gelfand, D., Sninsky, J., dan White, T. (Editor), *PCR Protocols: A Guide to Methods and Applications*. Academic Press, New York, hal. 315–322.
- WHO, 2000. Concise International Chemical Assessment Document 26 :Benzoic acid and sodium benzoate.
- Wu, R., Wu, C., Liu, D., Yang, X., Huang, J., Zhang, J., dkk., 2015. Overview of Antioxidant Peptides Derived from Marine Resources: The Sources, Characteristic, Purification, and Evaluation Methods. *Applied Biochemistry and Biotechnology*, **176**: 1815–1833.
- Wu, W., Jin, Y., Bai, F., dan Jin, S., 2015. *Pseudomonas aeruginosa*, dalam: *Molecular Medical Microbiology*. Academic Press Elsevier, United Kingdom, hal. 753–767.
- Xiao, J., Lin, L.-B., Hu, J.-Y., Duan, D.-Z., Shi, W., Zhang, Q., dkk., 2018. Pestalustaines A and B, unprecedented sesquiterpene and coumarin derivatives from endophytic fungus *Pestalotiopsis adusta*. *Tetrahedron Letters*, **59**: 1772–1775.
- Xu, D., Hu, M.-J., Wang, Y.-Q., dan Cui, Y.-L., 2019. Antioxidant Activities of Quercetin and Its Complexes for Medicinal Application. *Molecules*, **24**: 1123.

- Yadav, M., Yadav, A., dan Yadav, J.P., 2014. In vitro antioxidant activity and total phenolic content of endophytic fungi isolated from *Eugenia jambolana* Lam. *Asian Pacific Journal of Tropical Medicine*, **7**: S256–S261.
- Yang, L., Wen, K.-S., Ruan, X., Zhao, Y.-X., Wei, F., dan Wang, Q., 2018. Response of Plant Secondary Metabolites to Environmental Factors. *Molecules*, **23**: 762.
- Yang, Y., Jin, Z., Jin, Q., dan Dong, M., 2015. Isolation and fatty acid analysis of lipid-producing endophytic fungi from wild Chinese *Torreya Grandis*. *Microbiology*, **84**: 710–716.
- Yang, Z.-D., Li, Z.-J., Zhao, J.-W., Sun, J.-H., Yang, L.-J., dan Shu, Z.-M., 2019. Secondary Metabolites and PI3K Inhibitory Activity of *Colletotrichum gloeosporioides*, a Fungal Endophyte of *Uncaria rhynchophylla*. *Current Microbiology*, **76**: 904–908.
- Yu, F.-X., Chen, Y., Yang, Y.-H., Li, G.-H., dan Zhao, P.-J., 2018. A new epipolythiodioxopiperazine with antibacterial and cytotoxic activities from the endophytic fungus *Chaetomium* sp. M336. *Natural Product Research*, **32**: 689–694.
- Yu, S., Kim, T., Yoo, K.H., dan Kang, K., 2017. The T47D cell line is an ideal experimental model to elucidate the progesterone-specific effects of a luminal A subtype of breast cancer. *Biochemical and Biophysical Research Communications*, **486**: 752–758.
- Yuan, H., Ma, Q., Ye, L., dan Piao, G., 2016. The Traditional Medicine and Modern Medicine from Natural Products. *Molecules*, **21**: 559.
- Yulianto, W., Andarwulan, N., Giriwono, P.E., dan Pamungkas, J., 2016. HPLC-based metabolomics to identify cytotoxic compounds from *Plectranthus amboinicus* (Lour.) Spreng against human breast cancer MCF-7Cells. *Journal of Chromatography B*, **1039**: 28–34.
- Zaitun Hasibuan, P.A. dan Sumaiyah, S., 2019. The Anti-Proliferative and Pro-Apoptotic Properties of Ethanol *Plectranthus amboinicus* (Lour.) Spreng. Leaves Ethanolic Extract Nanoparticles on T47D Cell Lines. *Asian Pacific Journal of Cancer Prevention*, **20**: 897–901.
- Zin, N.M., Remali, J., Nasrom, M.N., Ishak, S.A., Baba, M.S., dan Jalil, J., 2017. Bioactive compounds fractionated from endophyte *Streptomyces* SUK 08 with promising ex-vivo antimalarial activity. *Asian Pacific Journal of Tropical Biomedicine*, **7**: 1062–1066.