



DAFTAR PUSTAKA

- Abdullah Al-Dhabi, N., Valan Arasu, M., dan Rejiniemon, T.S., 2015. In Vitro Antibacterial, Antifungal, Antibiofilm, Antioxidant, and Anticancer Properties of Isosteviol Isolated from Endangered Medicinal Plant *Pittosporum tetraspermum*, Research Article, Evidence-Based Complementary and Alternative Medicine. URL: <https://www.hindawi.com/journals/ecam/2015/164261/> (diakses tanggal 18/2/2021).
- Agudelo-Escobar, L.M., Gutiérrez-López, Y., dan Urrego-Restrepo, S., 2017. Effects of aeration, agitation and pH on the production of mycelial biomass and exopolysaccharide from the filamentous fungus *Ganoderma lucidum*. *DYNA*, **84**: 72–79.
- Aguiar, J.J.S., Sousa, C.P.B., Araruna, M.K.A., Silva, M.K.N., Portelo, A.C., Lopes, J.C., dkk., 2015. Antibacterial and modifying-antibiotic activities of the essential oils of *Ocimum gratissimum* L. and *Plectranthus amboinicus* L. *European Journal of Integrative Medicine*, **7**: 151–156.
- Akilandeswari, P. dan Pradeep, B.V., 2017. *Aspergillus terreus* KMBF1501 a Potential Pigment Producer under Submerged Fermentation. *International Journal of Pharmacy and Pharmaceutical Sciences*, **9**: 38.
- Alam, Md.Z., Bari, Md.N., Muyibi, S.A., Jamal, P., dan Al Mamun, A., 2011. Development of Culture Inoculum for Scale-Up Production of Citric Acid from Oil Palm Empty Fruit Bunches by *Aspergillus niger*. *Procedia Environmental Science*, **8**: 396–402.
- Allison, D. dan Gilbert, P., 2004. Bacteria, dalam: *Hugo and Russell's Pharmaceutical Microbiology*. John Wiley & Sons, Ltd, hal. 23–43.
- Al-Mariri, A., Swied, G., Oda, A., dan Al Hallab, L., 2013. Antibacterial Activity of *Thymus syriacus* Boiss Essential Oil and Its Components against Some Syrian Gram-Negative Bacteria Isolates. *Iranian Journal of Medical Sciences*, **38**: 180–186.



- Al-Sharif, I., Remmal, A., dan Aboussekhra, A., 2013. Eugenol triggers apoptosis in breast cancer cells through E2F1/surviving down-regulation. *BMC Cancer*, **13**: 600.
- Ammerman, N.C., Beier-Sexton, M., dan Azad, A.F., 2008. Growth and Maintenance of Vero Cell Lines. *Current protocols in microbiology, APPENDIX*: Appendix-4E.
- An, C., Ma, S., Shi, X., Xue, W., Liu, C., dan Ding, H., 2020. Diversity and Antimicrobial Activity of Endophytic Fungi Isolated from *Chloranthus japonicus* Sieb in Qinling Mountains, China. *International Journal of Molecular Sciences*, .
- Arikan, S., 2007. Current status of antifungal susceptibility testing methods. *Medical Mycology*, **45**: 569–587.
- Arumugam, G., Swamy, M.K., dan Sinniah, U.R., 2016. *Plectranthus amboinicus* (Lour.) Spreng: Botanical, Phytochemical, Pharmacological and Nutritional Significance. *Molecules (Basel, Switzerland)*, **21**: 369.
- Astuti, P., Rollando, R., Pratoko, D.K., Wahyuono, S., dan Nurrochmad, A., 2021. Antimicrobial and Cytotoxic Activities of A compound Produced by An Endophytic Fungus Isolated from The Leaves of *Coleus amboinicus* Lour. *International Journal of Pharmaceutical Research*, **13**: 2632–2644.
- 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**: 280–289.
- Astuti, P., Sudarsono, S., Nisak, K., dan Nugroho, G.W., 2014a. Endophytic Fungi Isolated from *Coleus amboinicus* Lour Exhibited Antimicrobial Activity. *Advanced Pharmaceutical Bulletin; eISSN 2251-7308*, .
- Astuti, P., Wahyono, dan Nababan, O.A., 2014b. Antimicrobial and cytotoxic activities of endophytic fungi isolated from *Piper crocatum* Ruiz & Pav. *Asian Pacific Journal of Tropical Biomedicine*, **4**: S592–S596.
- Atjanasuppat, K., Wongkham, W., Meepowpan, P., Kittakoop, P., Sobhon, P., Bartlett, A., dkk., 2009. In vitro screening for anthelmintic and antitumour



activity of ethnomedicinal plants from Thailand. *Journal of Ethnopharmacology*, **123**: 475–482.

Azam, M.W. dan Khan, A.U., 2019. Updates on the pathogenicity status of *Pseudomonas aeruginosa*. *Drug Discovery Today*, **24**: 350–359.

Balouiri, M., Sadiki, M., dan Ibnsouda, S.K., 2016. Methods for in vitro evaluating antimicrobial activity: A review. *Journal of Pharmaceutical Analysis*, **6**: 71–79.

Barabutis, N., Tsellou, E., Schally, A.V., Kouloheri, S., Kalofoutis, A., dan Kiaris, H., 2007. Stimulation of proliferation of MCF-7 breast cancer cells by a transfected splice variant of growth hormone-releasing hormone receptor. *Proceedings of the National Academy of Sciences*, **104**: 5575–5579.

Basu, S., Bose, C., Ojha, N., Das, N., Das, J., Pal, M., dkk., 2015. Evolution of bacterial and fungal growth media. *Bioinformation*, **11**: 182–184.

Bhatt, P. dan Negi, P.S., 2012. Antioxidant and Antibacterial Activities in the Leaf Extracts of Indian Borage (*Plectranthus amboinicus*). *Food and Nutrition Sciences*, **3**: 146–152.

Blois, M.S., 1958. Antioxidant Determinations by the Use of a Stable Free Radical. *Nature*, **181**: 1199–1200.

Bnyan, I.A., Abid, A.T., dan Obied, H.N., 2014. Antibacterial Activity of Carvacrol against Different Types of Bacteria. *Journal of Natural Sciences Research*, **4**: 13–16.

Buchanan, R.E., 1918. Life Phases in a Bacterial Culture. *The Journal of Infectious Diseases*, **23**: 109–125.

Bühler, R.M.M., Müller, B.L., Moritz, D.E., Vendruscolo, F., de Oliveira, D., dan Ninow, J.L., 2015. Influence of Light Intensity on Growth and Pigment Production by *Monascus ruber* in Submerged Fermentation. *Applied Biochemistry and Biotechnology*, **176**: 1277–1289.

Buteau-Lozano, H., Ancelin, M., Lardeux, B., Milanini, J., dan Perrot-Applanat, M., 2002. Transcriptional Regulation of Vascular Endothelial Growth Factor by Estradiol and Tamoxifen in Breast Cancer Cells: A Complex



Interplay between Estrogen Receptors α and β . *Cancer Research*, **62**: 4977–4984.

- Caicedo, N.H., Dávalos, A.F., Puente, P.A., Rodríguez, A.Y., dan Caicedo, P.A., 2019. Antioxidant activity of exo-metabolites produced by *Fusarium oxysporum*: An endophytic fungus isolated from leaves of *Otoba gracilipes*. *MicrobiologyOpen*, **8**: .
- Cantalupo, P.G., Katz, J.P., dan Pipas, J.M., 2015. HeLa Nucleic Acid Contamination in The Cancer Genome Atlas Leads to the Misidentification of Human Papillomavirus 18. *Journal of Virology*, **89**: 4051–4057.
- Cao, H., Lai, Y., Bougouffa, S., Xu, Z., dan Yan, A., 2017. Comparative genome and transcriptome analysis reveals distinctive surface characteristics and unique physiological potentials of *Pseudomonas aeruginosa* ATCC 27853. *BMC Genomics*, **18**: 459.
- Castillo, R.A.M. dan González, V.P., 1999. *Plectranthus amboinicus* (Lour.) Spreng. *Revista Cubana de Plantas Medicinales*, **4**: 110–115.
- Chapa, J.J.D.L., Singha, P.K., Lee, D.R., dan Gonzales, C.B., 2018. Thymol inhibits oral squamous cell carcinoma growth via mitochondria-mediated apoptosis. *Journal of Oral Pathology & Medicine*, **47**: 674–682.
- Chen, L., Zhang, Q.-Y., Jia, M., Ming, Q.-L., Yue, W., Rahman, K., dkk., 2016. Endophytic fungi with antitumor activities: Their occurrence and anticancer compounds. *Critical Reviews in Microbiology*, **42**: 454–473.
- Chen, T., Drabkowski, D., Hay, R., Macy, M., dan Peterson W, J., 1987. WiDr is a derivative of another colon adenocarcinoma cell line, HT-29. *Cancer Genetics and Cytogenetics*, **27**: 125–134.
- Chen, X., Zheng, Y., dan Shen, Y., 2007. Natural Products with Maleic Anhydride Structure: Nonadrides, Tautomycin, Chaetomellic Anhydride, and Other Compounds. *Chemical Reviews*, **107**: 1777–1830.
- Chinworrungsee, M., Wiyakrutta, S., Sriubolmas, N., Chuailua, P., dan Suksamrarn, A., 2008. Cytotoxic activities of trichothecenes isolated from an endophytic fungus belonging to order Hypocreales. *Archives of Pharmacal Research*, **31**: 611–616.



- Choi, U. dan Lee, C.-R., 2019. Distinct Roles of Outer Membrane Porins in Antibiotic Resistance and Membrane Integrity in *Escherichia coli*. *Frontiers in Microbiology*, **10**: .
- Choukri, F., Benderdouche, M., dan Sednaoui, P., 2014. In vitro susceptibility profile of 200 recent clinical isolates of *Candida* spp. to topical antifungal treatments of vulvovaginal candidiasis, the imidazoles and nystatin agents. *Journal De Mycologie Medicale*, **24**: 303–307.
- Čihák, M., Kameník, Z., Šmídová, K., Bergman, N., Benada, O., Kofroňová, O., dkk., 2017. Secondary Metabolites Produced during the Germination of *Streptomyces coelicolor*. *Frontiers in Microbiology*, **8**: .
- Collins, C.H. (Ed.), 2004. *Collins and Lyne's Microbiological Methods*, 8th ed. Arnold, London.
- Comşa, Ş., Cîmpean, A.M., dan Raica, M., 2015. The Story of MCF-7 Breast Cancer Cell Line: 40 years of Experience in Research. *Anticancer Research*, **35**: 3147–3154.
- Comşa, S., Ciuculescu, F., dan Raica, M., 2012. Mesenchymal stem cell-tumor cell cooperation in breast cancer vasculogenesis. *Molecular Medicine Reports*, **5**: 1175–1180.
- Contreras-Guzman, E.S. dan Strong, F.C., 1982. Determination of tocopherols (vitamin E) by reduction of cupric ion [Foods, feeds, chemical analysis, methods]. *Journal of the Association of Official Analytical Chemists (USA)*, **65**: 1215–1226.
- Cos, P., Vlietinck, A.J., Berghe, D.V., dan Maes, L., 2006. Anti-infective potential of natural products: How to develop a stronger in vitro ‘proof-of-concept.’ *Journal of Ethnopharmacology*, **106**: 290–302.
- Cui, J.-L., Guo, T.-T., Ren, Z.-X., Zhang, N.-S., dan Wang, M.-L., 2015. Diversity and Antioxidant Activity of Culturable Endophytic Fungi from Alpine Plants of *Rhodiola crenulata*, *R. angusta*, and *R. sachalinensis*. *PLOS ONE*, **10**: e0118204.
- Dai, D.Q., Phookamsak, R., Wijayawardene, N.N., Li, W.J., Bhat, D.J., Xu, J.C., dkk., 2017a. Bambusicolous fungi. *Fungal Diversity*, **82**: 1–105.



- Dai, X., Cheng, H., Bai, Z., dan Li, J., 2017b. Breast Cancer Cell Line Classification and Its Relevance with Breast Tumor Subtyping. *Journal of Cancer*, **8**: 3131–3141.
- D'Andrea, M.M., Fraziano, M., Thaller, M.C., dan Rossolini, G.M., 2019. The Urgent Need for Novel Antimicrobial Agents and Strategies to Fight Antibiotic Resistance. *Antibiotics*, **8**: .
- de Castro, R.D., de Souza, T.M.P.A., Bezerra, L.M.D., Ferreira, G.L.S., de Brito Costa, E.M.M., dan Cavalcanti, A.L., 2015. Antifungal activity and mode of action of thymol and its synergism with nystatin against *Candida* species involved with infections in the oral cavity: an in vitro study. *BMC Complementary and Alternative Medicine*, **15**: .
- de Lira Mota, K., de Oliveira Pereira, F., de Oliveira, W., Lima, I., dan de Oliveira Lima, E., 2012. Antifungal Activity of *Thymus vulgaris* L. Essential Oil and Its Constituent Phytochemicals against *Rhizopus oryzae*: Interaction with Ergosterol. *Molecules*, **17**: 14418–14433.
- 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.
- DeBaggio, T. dan Tucker, A.O., 2009. *The Encyclopedia of Herbs: A Comprehensive Reference to Herbs of Flavor and Fragrance*. Timber Press.
- Dhayanithy, G., Subban, K., dan Chelliah, J., 2019. Diversity and biological activities of endophytic fungi associated with *Catharanthus roseus*. *BMC Microbiology*, **19**: 22.
- dos Santos, I.P., da Silva, L.C.N., da Silva, M.V., de Araújo, J.M., Cavalcanti, M. da S., dan Lima, V.L. de M., 2015. Antibacterial activity of endophytic fungi from leaves of *Indigofera suffruticosa* Miller (Fabaceae). *Frontiers in Microbiology*, **6**: .
- Doughari, J.H., 2006. Antimicrobial Activity of *Tamarindus indica* Linn. *Tropical Journal of Pharmaceutical Research*, **5**: 597–603.



- Duensing, S. dan Münger, K., 2002. The human papillomavirus type 16 E6 and E7 oncoproteins independently induce numerical and structural chromosome instability. *Cancer Research*, **62**: 7075–7082.
- Erny Sabrina, M.N., Razali, M., Mirfat, A.H.S., dan Mohd Shukri, M.A., 2014. Antimicrobial activity and bioactive evaluation of *Plectranthus amboinicus* essential oil. *American Journal of Research Communication*, **2**: 121–127.
- Errington, J. dan Aart, L.T. van der, 2020. Microbe Profile: *Bacillus subtilis*: model organism for cellular development, and industrial workhorse. *Microbiology*, **166**: 425–427.
- Fan, K., Li, X., Cao, Y., Qi, H., Li, L., Zhang, Q., dkk., 2015. Carvacrol inhibits proliferation and induces apoptosis in human colon cancer cells. *Anti-Cancer Drugs*, **26**: 813–823.
- Fass, R.J. dan Barnishan, J., 1979. Minimal inhibitory concentrations of 34 antimicrobial agents for control strains *Escherichia coli* ATCC 25922 and *Pseudomonas aeruginosa* ATCC 27853. *Antimicrobial Agents and Chemotherapy*, **16**: 622–624.
- Fidyt, K., Fiedorowicz, A., Strządała, L., dan Szumny, A., 2016. β -caryophyllene and β -caryophyllene oxide—natural compounds of anticancer and analgesic properties. *Cancer Medicine*, **5**: 3007–3017.
- Frame, A.D., Ríos-Olivares, E., De Jesús, L., Ortiz, D., Pagán, J., dan Méndez, S., 1998. Plants from Puerto Rico with anti-*Mycobacterium tuberculosis* properties. *Puerto Rico Health Sciences Journal*, **17**: 243–252.
- Fritze, D. dan Claus, D., 2003. Chapter 4 Media for *Bacillus* spp. and related genera relevant to foods, dalam: Corry, J.E.L., Curtis, G.D.W., Baird, R.M. (Eds.), *Progress in Industrial Microbiology, Handbook of Culture Media for Food Microbiology*. Elsevier, hal. 61–77.
- Garcia-Rubio, R., de Oliveira, H.C., Rivera, J., dan Trevijano-Contador, N., 2020. The Fungal Cell Wall: Candida, Cryptococcus, and Aspergillus Species. *Frontiers in Microbiology*, **10**: .
- García-Salinas, S., Elizondo-Castillo, H., Arruebo, M., Mendoza, G., dan Irusta, S., 2018. Evaluation of the Antimicrobial Activity and Cytotoxicity of



Different Components of Natural Origin Present in Essential Oils.
Molecules: A Journal of Synthetic Chemistry and Natural Product Chemistry, **23**: .

- Gessard, C., 1984. Classics in infectious diseases. On the blue and green coloration that appears on bandages. *Reviews of Infectious Diseases*, **6 Suppl 3**: S775-776.
- Gey, G.O., Coffman, W.D., dan Kubicek, M.T., 1952. Tissue culture studies of the proliferative capacity of cervical carcinoma and normal epithelium. *Cancer Res*, **12**: 264–265.
- 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**: .
- Guarro, J., Gené, J., dan Stchigel, A.M., 1999. Developments in Fungal Taxonomy. *Clinical Microbiology Reviews*, **12**: 454–500.
- Gunasekaran, S. dan Poorniammal, R., 2008. Optimization of fermentation conditions for red pigment production from *Penicillium* sp. under submerged cultivation. *African Journal of Biotechnology*, **7**: 1894–1898.
- Guo, N., Liu, J., Wu, X., Bi, X., Meng, R., Wang, X., dkk., 2009. Antifungal activity of thymol against clinical isolates of fluconazole-sensitive and -resistant *Candida albicans*. *Journal of Medical Microbiology*, 1074–1079.
- Gutierrez, E.I.C., Garcia-Vielma, C., Aguilar-Lemarroy, A., Vallejo-Ruiz, V., Pina-Sanchez, P., Zapata-Benavides, P., dkk., 2017. Expression of the HPV18/E6 oncoprotein induces DNA damage. *European Journal of Histochemistry: EJH*, **61**: .
- Hamoud, R., Reichling, J., dan Wink, M., 2015. Synergistic antibacterial activity of the combination of the alkaloid sanguinarine with EDTA and the antibiotic streptomycin against multidrug resistant bacteria: Drug combination toward resistant bacteria. *Journal of Pharmacy and Pharmacology*, **67**: 264–273.



- Handayani, D., Rivai, H., Hutabarat, M., dan Rasyid, R., 2017. Antibacterial Activity of Endophytic Fungi Isolated from Mangrove Plant *Sonneratia griffithii* Kurz. *Journal of Applied Pharmaceutical Science*, **7**: 209–212.
- Harboim, P.R., Overbeek, L.S. van, Berg, G., Pirttilä, A.M., Compant, S., Campisano, A., dkk., 2015. The Hidden World within Plants: Ecological and Evolutionary Considerations for Defining Functioning of Microbial Endophytes. *Microbiology and Molecular Biology Reviews*, **79**: 293–320.
- Hasibuan, P.A.Z., Ilyas, S., dan Nasution, M.P., 2013. Antioxidant and Cytotoxic Activities of *Plectranthus amboinicus* (Lour.) Spreng. Extracts. *International Journal of Pharmacy Teaching and Practice*, **4**: 755–758.
- Hasibuan, P.A.Z.H., Sitorus, P., Satria, D., dan Sibuea, R.D., 2019. Antioxidant Properties and Cytotoxic Activity of Ethyl Acetate Fraction of *Plectranthus amboinicus* (Lour.) Spreng. Leaves on HeLa and T47D Cell Lines. *Indonesian Journal of Cancer Chemoprevention*, **10**: 37–45.
- Hattori, M., Nakabayashi, T., Lim, Y.A., Miyashiro, H., Kurokawa, M., Shiraki, K., dkk., 1995. Inhibitory effects of various ayurvedic and Panamanian medicinal plants on the infection of herpes simplex virus-1 in vitro and in vivo. *Phytotherapy Research*, **9**: 270–276.
- Hodges, N., 2004. Fundamental features of microbiology, dalam: *Hugo and Russell's Pharmaceutical Microbiology*. Blackwell Science, Massachusetts, hal. 14–15.
- Holliday, D.L. dan Speirs, V., 2011. Choosing the right cell line for breast cancer research. *Breast Cancer Research : BCR*, **13**: 215.
- Hsu, S.H., Schacter, B.Z., Delaney, N.L., Miller, T.B., McKusick, V.A., Kennett, R.H., dkk., 1976. Genetic Characteristics of the HeLa Cell. *Science*, **191**: 392–394.
- Hullatti, K. dan Bhattacharjee, P., 2011. Pharmacognostical Evaluation of Different Parts of *Coleus amboinicus* Lour., Lamiaceae. *Pharmacognosy Journal*, **3**: 39–44.
- Husni, E., Nahari, F., Wirasti, Y., Wahyuni, F.S., dan Dachriyanus, 2015. Cytotoxicity study of ethanol extract of the stem bark of asam kandis



(*Garcinia cowa* Roxb.) on T47D breast cancer cell line. *Asian Pacific Journal of Tropical Biomedicine*, **5**: 249–252.

Iglewski, B.H., 1996. Pseudomonas, dalam: Baron, S. (Ed.), *Medical Microbiology*. University of Texas Medical Branch at Galveston, Galveston (TX), hal. Chapter 27.

Iheanacho, H.E., Njobeh, P.B., Dutton, F.M., Steenkamp, P.A., Steenkamp, L., Mthombeni, J.Q., dkk., 2014. Morphological and molecular identification of filamentous *Aspergillus flavus* and *Aspergillus parasiticus* isolated from compound feeds in South Africa. *Food Microbiology*, **44**: 180–184.

Integrated Taxonomic Information System, 2019. 'ITIS Standard Report Page: *Plectranthus amboinicus'* ITIS Report. URL: https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=TSN&search_value=504444#null (diakses tanggal 7/7/2019).

Islam, M.T., Khalipha, A.B.R., Bagchi, R., Mondal, M., Smrity, S.Z., Uddin, S.J., dkk., 2019. Anticancer activity of thymol: A literature-based review and docking study with emphasis on its anticancer mechanisms. *IUBMB life*, **71**: 9–19.

Jalgaonwala, R., Mohite, B.V., dan Mahajan, R., 2011. A review: Natural products from plant associated endophytic fungi. *J. Microbiol. Biotechnol. Res*, 21–32.

Jänicke, R.U., 2009. MCF-7 breast carcinoma cells do not express caspase-3. *Breast Cancer Research and Treatment*, **117**: 219–221.

Jha, Y., 2019. Endophytic Bacteria-Mediated Regulation of Secondary Metabolites for the Growth Induction in *Hyptis suaveolens* Under Stress, dalam: Egamberdieva, D., Tiezzi, A. (Eds.), *Medically Important Plant Biomes: Source of Secondary Metabolites, Microorganisms for Sustainability*. Springer, Singapore, hal. 277–292.

Jiao, R.H., Xu, S., Liu, J.Y., Ge, H.M., Ding, H., Xu, C., dkk., 2006. Chaetominine, a Cytotoxic Alkaloid Produced by Endophytic *Chaetomium* sp. IFB-E015. *Organic Letters*, **8**: 5709–5712.



- Jork, H. (Ed.), 1990. *Thin-Layer Chromatography: Reagents and Detection Methods*. VCH, Weinheim (Federal Republic of Germany) ; New York, NY (USA).
- Kabir, M.A., Hussain, M.A., dan Ahmad, Z., 2012. *Candida albicans*: A Model Organism for Studying Fungal Pathogens. *ISRN Microbiology*, **2012**.
- Kachur, K. dan Suntres, Z., 2020. The antibacterial properties of phenolic isomers, carvacrol and thymol. *Critical Reviews in Food Science and Nutrition*, **60**: 3042–3053.
- Kadosh, D., 2016. Control of *Candida albicans* morphology and pathogenicity by post-transcriptional mechanisms. *Cellular and molecular life sciences : CMLS*, **73**: 4265–4278.
- Kang, S.-H., Kim, Y.-S., Kim, E.-K., Hwang, J.-W., Jeong, J.-H., Dong, X., dkk., 2016. Anticancer Effect of Thymol on AGS Human Gastric Carcinoma Cells. *Journal of Microbiology and Biotechnology*, **26**: 28–37.
- Kedare, S.B. dan Singh, R.P., 2011. Genesis and development of DPPH method of antioxidant assay. *Journal of food science and technology*, **48**: 412–422.
- Kementerian Kesehatan RI, 2019. 'Hari Kanker Sedunia 2019' Kementerian Kesehatan Republik Indonesia. URL: <http://www.depkes.go.id/article/view/19020100003/hari-kanker-sedunia-2019.html> (diakses tanggal 15/10/2019).
- Keydar, I., Chen, L., Karby, S., Weiss, F.R., Delarea, J., Radu, M., dkk., 1979. Establishment and characterization of a cell line of human breast carcinoma origin. *European Journal of Cancer (1965)*, **15**: 659–670.
- Kharwar, R.N., Mishra, A., Gond, S.K., Stierle, A., dan Stierle, D., 2011. Anticancer compounds derived from fungal endophytes: their importance and future challenges. *Natural Product Reports*, **28**: 1208–1228.
- Knob, A., Fortkamp, D., Prolo, T., Izidoro, S.C., dan Almeida, J.M., 2014. Agro-residues as Alternative for Xylanase Production by Filamentous Fungi. *BioResources*, **9**: 5738–5773.
- Koch, L., Lodin, A., Herold, I., Ilan, M., Carmeli, S., dan Yarden, O., 2014. Sensitivity of *Neurospora crassa* to a Marine-Derived *Aspergillus*



tubingensis Anhydride Exhibiting Antifungal Activity That Is Mediated by the MAS1 Protein. *Marine Drugs*, **12**: 4713–4731.

- Kuhn, D.M., Balkis, M., Chandra, J., Mukherjee, P.K., dan Ghannoum, M.A., 2003. Uses and Limitations of the XTT Assay in Studies of Candida Growth and Metabolism. *Journal of Clinical Microbiology*, **41**: 506–508.
- Kumar, P., Singh, B., Thakur, V., Thakur, A., Thakur, N., Pandey, D., dkk., 2019. Hyper-production of taxol from *Aspergillus fumigatus*, an endophytic fungus isolated from Taxus sp. of the Northern Himalayan region. *Biotechnology Reports*, **24**: .

Kumaran, A. dan Joel karunakaran, R., 2006. Antioxidant and free radical scavenging activity of an aqueous extract of *Coleus aromaticus*. *Food Chemistry*, **97**: 109–114.

Kusumoto, I.T., Nakabayashi, T., Kida, H., Miyashiro, H., Hattori, M., Namba, T., dkk., 1995. Screening of various plant extracts used in ayurvedic medicine for inhibitory effects on human immunodeficiency virus type 1 (HIV-1) protease. *Phytotherapy Research*, **9**: 180–184.

LaBauve, A.E. dan Wargo, M.J., 2012. Growth and Laboratory Maintenance of *Pseudomonas aeruginosa*. *Current protocols in microbiology*, **0 6**: Unit-6E.1.

Laila, F., Fardiaz, D., Yuliana, N.D., Damanik, M.R.M., dan Nur Annisa Dewi, F., 2020. Methanol Extract of *Coleus amboinicus* (Lour) Exhibited Antiproliferative Activity and Induced Programmed Cell Death in Colon Cancer Cell WiDr. *International Journal of Food Science*, **2020**: e9068326.

Lee, J., Lee, J.-E., Kim, S., Kang, D., dan Yoo, H.M., 2020. Evaluating Cell Death Using Cell-Free Supernatant of Probiotics in Three-Dimensional Spheroid Cultures of Colorectal Cancer Cells. *JoVE (Journal of Visualized Experiments)*, e61285.

Levenson, A.S. dan Jordan, V.C., 1997. MCF-7: The First Hormone-responsive Breast Cancer Cell Line. *Cancer Research*, **57**: 3071–3078.

Liang, H., Xing, Y., Chen, J., Zhang, D., Guo, S., dan Wang, C., 2012. Antimicrobial activities of endophytic fungi isolated from *Ophiopogon*



japonicus (Liliaceae). *BMC Complementary and Alternative Medicine*, **12**: 238.

- Lin, Z.-J., Lu, Z.-Y., Zhu, T.-J., Fang, Y.-C., Gu, Q.-Q., dan Zhu, W.-M., 2008. Penicillenols from *Penicillium* sp. GQ-7, an endophytic fungus associated with *Aegiceras corniculatum*. *Chemical & Pharmaceutical Bulletin*, **56**: 217–221.
- Linde, T., Hansen, N.B., Lübeck, M., dan Lübeck, P.S., 2014. Fermentation in 24-well plates is an efficient screening platform for filamentous fungi. *Letters in Applied Microbiology*, **59**: 224–230.
- Lister, P.D., Wolter, D.J., dan Hanson, N.D., 2009. Antibacterial-Resistant *Pseudomonas aeruginosa*: Clinical Impact and Complex Regulation of Chromosomally Encoded Resistance Mechanisms. *Clinical Microbiology Reviews*, **22**: 582–610.
- Lowy, F.D., 1998. *Staphylococcus aureus* Infections. *The New England Journal of Medicine*, **339**: 520–532.
- Lu, Z., Guo, W., dan Liu, C., 2018. Isolation, identification and characterization of novel *Bacillus subtilis*. *The Journal of Veterinary Medical Science*, **80**: 427–433.
- Lucey, B.P., Nelson-Rees, W.A., dan Hutchins, G.M., 2009. Henrietta Lacks, HeLa Cells, and Cell Culture Contamination. *Archives of Pathology & Laboratory Medicine*, **133**: 1463–1467.
- Lyapun, I.N., Andryukov, B.G., dan Bynina, M.P., 2019. HeLa Cell Culture: Immortal Heritage of Henrietta Lacks. *Molecular Genetics, Microbiology and Virology*, **34**: 195–200.
- Madhavan, P., Jamal, F., dan Chong, P.P., 2011. Laboratory Isolation and Identification of Candida Species. *Journal of Applied Sciences*, **11**: 2870–2877.
- Malhadas, C., Malheiro, R., Pereira, J.A., de Pinho, P.G., dan Baptista, P., 2017. Antimicrobial activity of endophytic fungi from olive tree leaves. *World Journal of Microbiology and Biotechnology*, **33**: 46.



- Manjamalai, A., 2012. Volatile constituents and antioxidant property of essential oil from *Plectranthus amboinicus* (Lour). *Int. J. Pharm. Biol. Sci.*, **3**: 445–458.
- Manjamalai, A., Alexander, T., dan Grace, V.M.B., 2012. Bioactive evaluation of the essential oil of *Plectranthus amboinicus* by GC-MS analysis and its role as a drug for microbial infections and inflammation. *International Journal of Pharmacy and Pharmaceutical Sciences*, **4**: 7.
- Marino, M., Bersani, C., dan Comi, G., 1999. Antimicrobial activity of the essential oils of *Thymus vulgaris* L. measured using a bioimpedometric method. *Journal of Food Protection*, **62**: 1017–1023.
- McCullough, M.J., Ross, B.C., dan Reade, P.C., 1996. *Candida albicans*: a review of its history, taxonomy, epidemiology, virulence attributes, and methods of strain differentiation. *International Journal of Oral and Maxillofacial Surgery*, **25**: 136–144.
- Meeran, M.F.N., Jagadeesh, G.S., dan Selvaraj, P., 2015. Thymol attenuates altered lipid metabolism in β-adrenergic agonist induced myocardial infarcted rats by inhibiting tachycardia, altered electrocardiogram, apoptosis and cardiac hypertrophy. *Journal of Functional Foods*, **14**: 51–62.
- Meiyanto, E., Septisetyani, E.P., Larasati, Y.A., dan Kawaichi, M., 2018. Curcumin Analog Pentagamavunon-1 (PGV-1) Sensitizes Widr Cells to 5-Fluorouracil through Inhibition of NF-κB Activation. *Asian Pacific Journal of Cancer Prevention : APJCP*, **19**: 49–56.
- Menteri Kesehatan Republik Indonesia, 2018. Keputusan Menteri Kesehatan Republik Indonesia Nomor HK.01.07/Menkes/406/2018 tentang Pedoman Nasional Pelayanan Kedokteran Tata Laksana Kanker Kolorektal.
- Michna, R.H., Commichau, F.M., Tödter, D., Zschiedrich, C.P., dan Stölke, J., 2014. SubtiWiki—a database for the model organism *Bacillus subtilis* that links pathway, interaction and expression information. *Nucleic Acids Research*, **42**: D692–D698.
- Miladinović, D.L., Ilić, B.S., Mihajlov-Krstev, T.M., Jović, J.L., dan Marković, M.S., 2014. In vitro antibacterial activity of *Libanotis montana* essential oil



in combination with conventional antibiotics. *Natural Product Communications*, **9**: 281–286.

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.

Missiakas, D.M. dan Schneewind, O., 2013. Growth and Laboratory Maintenance of *Staphylococcus aureus*. *Current protocols in microbiology*, Chapter **9**: Unit-9C.1.

Monteiro, M.C., de la Cruz, M., Cantizani, J., Moreno, C., Tormo, J.R., Mellado, E., dkk., 2012. A New Approach to Drug Discovery: High-Throughput Screening of Microbial Natural Extracts against *Aspergillus fumigatus* Using Resazurin. *Journal of Biomolecular Screening*, **17**: 542–549.

Mota, A. de L., Evangelista, A.F., Macedo, T., Oliveira, R., Scapulatempo-Neto, C., Vieira, R.A., dkk., 2017. Molecular characterization of breast cancer cell lines by clinical immunohistochemical markers. *Oncology Letters*, **13**: 4708–4712.

Muniandy, K., Hassan, Z., dan Isa, M.H.M., 2014. The action of *Coleus aromaticus* as a potential wound healing agent in experimentally induced diabetic mice. *PERINTIS E-J*, **4**: 1–30.

Murthy, P.S., Ramalakshmi, K., dan Srinivas, P., 2009. Fungitoxic activity of Indian borage (*Plectranthus amboinicus*) volatiles. *Food Chemistry*, **114**: 1014–1018.

Murthy, P.S., Suzuki, S., dan Kusumoto, K.-I., 2015. Effect of Light on the Growth and Acid Protease Production of *Aspergillus oryzae*. *Food Science and Technology Research*, **21**: 631–635.

Nahapetian, A.T., Thomas, J.N., dan Thilly, W.G., 1986. Optimization of environment for high density Vero cell culture: effect of dissolved oxygen and nutrient supply on cell growth and changes in metabolites. *Journal of Cell Science*, **81**: 65–103.



- Nenoff, P., Krüger, C., Neumeister, C., Schwantes, U., dan Koch, D., 2016. In vitro susceptibility testing of yeasts to nystatin – low minimum inhibitory concentrations suggest no indication of in vitro resistance of *Candida albicans*, *Candida species* or non-*Candida* yeast species to nystatin. *Clinical and Medical Investigations*, **1**: .
- Newman, D.J. dan Cragg, G.M., 2016. Natural Products as Sources of New Drugs from 1981 to 2014. *Journal of Natural Products*, **79**: 629–661.
- Noguchi, P., Wallace, R., Johnson, J., Earley, E.M., O'Brien, S., Ferrone, S., dkk., 1979. Characterization of WiDr: A human colon carcinoma cell line. *In Vitro*, **15**: 401–408.
- Nuraini, F.R., Setyaningsih, R., dan Susilowati, A., 2019. 'Antioxidant activity of bioactive compound produced by endophytic fungi isolated from endemic plant of South Kalimantan *Mangifera casturi* Kosterm', dalam: *AIP Conference Proceedings 2120*. Dipresentasikan pada INTERNATIONAL CONFERENCE ON BIOLOGY AND APPLIED SCIENCE (ICOBAS), AIP, Malang, Indonesia, hal. 080013.
- Ogston, A., 1984. "On Abscesses." *Reviews of Infectious Diseases*, **6**: 122–128.
- Olasupo, N.A., Fitzgerald, D.J., Gasson, M.J., dan Narbad, A., 2003. Activity of natural antimicrobial compounds against *Escherichia coli* and *Salmonella enterica* serovar Typhimurium. *Letters in Applied Microbiology*, **37**: 448–451.
- Oliveira, R. de A.G. de, Lima, E. de O., Souza, E.L. de, Vieira, W.L., Freire, K.R.L., Trajano, V.N., dkk., 2007. Interference of *Plectranthus amboinicus* (Lour.) Spreng essential oil on the anti-*Candida* activity of some clinically used antifungals. *Revista Brasileira de Farmacognosia*, **17**: 186–190.
- Pagès, J.-M., James, C.E., dan Winterhalter, M., 2008. The porin and the permeating antibiotic: a selective diffusion barrier in Gram-negative bacteria. *Nature Reviews Microbiology*, **6**: 893–903.
- 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.



- Patel, R., Mahobia, N., Waseem, N., Upwar, N., dan Singh, S., 2010a. Phyto-Physicochemical Investigation of Leaves of *Plectranthus amboinicus* (Lour) Spreng. *Pharmacognosy Journal*, **2**: 536–542.
- Patel, R.D., Mahobia, N.K., Singh, M.P., Singh, A., Sheikh, N.W., Alam, G., dkk., 2010b. Antioxidant Potential of Leaves of *Plectranthus amboinicus* (Lour) Spreng. *Der Pharmacia Lettre*, **2**: 240–245.
- Perrot-Applanat, M. dan Di Benedetto, M., 2012. Autocrine functions of VEGF in breast tumor cells: adhesion, survival, migration and invasion. *Cell Adhesion & Migration*, **6**: 547–553.
- Phongpaichit, S., Nikom, J., Rungjindamai, N., Sakayaroj, J., Hutadilok-Towatana, N., Rukachaisirikul, V., dkk., 2007. Biological activities of extracts from endophytic fungi isolated from *Garcinia* plants: Biological activities of extracts from endophytic fungi. *FEMS Immunology & Medical Microbiology*, **51**: 517–525.
- Phongpaichit, S., Rungjindamai, N., Rukachaisirikul, V., dan Sakayaroj, J., 2006. Antimicrobial activity in cultures of endophytic fungi isolated from *Garcinia* species. *FEMS Immunology & Medical Microbiology*, **48**: 367–372.
- Pina-Vaz, C., Gonçalves Rodrigues, A., Pinto, E., Costa-de-Oliveira, S., Tavares, C., Salgueiro, L., dkk., 2004. Antifungal activity of Thymus oils and their major compounds. *Journal of the European Academy of Dermatology and Venereology: JEADV*, **18**: 73–78.
- Pinto, M.E.A., Araújo, S.G., Morais, M.I., Sá, N.P., Lima, C.M., Rosa, C.A., dkk., 2017. Antifungal and antioxidant activity of fatty acid methyl esters from vegetable oils. *Anais da Academia Brasileira de Ciências*, **89**: 1671–1681.
- Porras-Alfaro, A. dan Bayman, P., 2011. Hidden Fungi, Emergent Properties: Endophytes and Microbiomes. *Annual Review of Phytopathology*, **49**: 291–315.
- Prayong, P., Barusrux, S., dan Weerapreeyakul, N., 2008. Cytotoxic activity screening of some indigenous Thai plants. *Fitoterapia*, **79**: 598–601.



- Prestinaci, F., Pezzotti, P., dan Pantosti, A., 2015. Antimicrobial resistance: a global multifaceted phenomenon. *Pathogens and Global Health*, **109**: 309–318.
- Puri, S.C., Verma, V., Amna, T., Qazi, G.N., dan Spitteller, M., 2005. An endophytic fungus from *Nothapodytes foetida* that produces camptothecin. *Journal of Natural Products*, **68**: 1717–1719.
- Rahmawati, N., Sunarya, S., dan Rumidatul, A., 2018. Exploration of potential bioactive compounds of endophytic microbial culture isolated from gall rust sengon (*Falcataria moluccana*) Barneby & J.W Grimes. *JPSR*, 14.
- Rajendran, L., Rajagopal, K., Subbarayan, K., Sampath, A., dan Karthik, G., 2013. Efficiency of fungal taxol on human liver carcinoma cell lines. *American Journal of Research Communication*, **1**: 112–121.
- Ramalakshmi, P., Subramanian, N., Saravanan, R., Mohanakrishnan, H., dan Muthu, M., 2014. Anticancer effect of *Coleus amboinicus* (Karpooravalli) on human lung cancer cell line (A549). *International Journal of Development Research*, **4**: 2442–2449.
- Read, N.D., 2018. Fungal cell structure and organization, dalam: *Oxford Textbook of Medical Mycology*. Oxford University Press.
- Riss, T.L., Moravec, R.A., Niles, A.L., Duellman, S., Benink, H.A., Worzella, T.J., dkk., 2004. Cell Viability Assays, dalam: Sittampalam, G.S., Grossman, A., Brimacombe, K., Arkin, M., Auld, D., Austin, C., dkk. (Eds.), *Assay Guidance Manual*. Eli Lilly & Company and the National Center for Advancing Translational Sciences, Bethesda (MD).
- Rodrigues, Fabíola Fernandes Galvão, Costa, J.G.M., Rodrigues, Fábio Fernandes Galvao, dan Campos, A.R., 2013. Study of the Interference between Plectranthus Species Essential Oils from Brazil and Aminoglycosides. *Evidence-Based Complementary and Alternative Medicine*, **2013**: e724161.
- Rodrigues, N.R., Rowan, A., Smith, M.E., Kerr, I.B., Bodmer, W.F., Gannon, J.V., dkk., 1990. p53 mutations in colorectal cancer. *Proceedings of the National Academy of Sciences of the United States of America*, **87**: 7555–7559.



- Rollando, 2015. 'Penelusuran Senyawa Antibakteri Ekstrak Etil Asetat Kultur Fungi Endofit Kode DJ2 dari Daun Jinten (*Coleus amboinicus* Lour.)', *Tesis*, . Universitas Gadjah Mada, Yogyakarta.
- Ruiz, B., Chávez, A., Forero, A., García-Huante, Y., Romero, A., Sánchez, M., dkk., 2010. Production of microbial secondary metabolites: regulation by the carbon source. *Critical Reviews in Microbiology*, **36**: 146–167.
- Sadh, P., Kumar, S., Chawla, P., dan Duhan, J., 2018. Fermentation: A Boon for Production of Bioactive Compounds by Processing of Food Industries Wastes (By-Products). *Molecules*, **23**: 2560.
- Saïdana, D., Mahjoub, M.A., Mighri, Z., Chriaa, J., Daamiand, M., dan Helal, A.N., 2010. Studies of the Essential Oil Composition, Antibacterial and Antifungal Activity Profiles of *Frankenia laevis* L. from Tunisia. *Journal of Essential Oil Research*, **22**: 349–353.
- Sekiguchi, J., Asagi, T., Miyoshi-Akiyama, T., Fujino, T., Kobayashi, I., Morita, K., dkk., 2005. Multidrug-Resistant *Pseudomonas aeruginosa* Strain That Caused an Outbreak in a Neurosurgery Ward and Its *aac(6')-Iae* Gene Cassette Encoding a Novel Aminoglycoside Acetyltransferase. *Antimicrobial Agents and Chemotherapy*, **49**: 3734–3742.
- Sfeir, A. dan Lange, T. de, 2012. Removal of Shelterin Reveals the Telomere End-Protection Problem. *Science*, **336**: 593–597.
- Sharifi-Rad, M., Varoni, E.M., Iriti, M., Martorell, M., Setzer, W.N., Del Mar Contreras, M., dkk., 2018. Carvacrol and human health: A comprehensive review. *Phytotherapy research: PTR*, **32**: 1675–1687.
- Shettigar, N.B., Das, S., Rao, N.B., dan Rao, S.B.S., 2015. Thymol, a monoterpenoid phenolic derivative of cymene, abrogates mercury-induced oxidative stress resultant cytotoxicity and genotoxicity in hepatocarcinoma cells. *Environmental Toxicology*, **30**: 968–980.
- Shubha, J.R. dan Bhatt, P., 2015. *Plectranthus amboinicus* leaves stimulate growth of probiotic *L. plantarum*: evidence for ethnobotanical use in diarrhea. *Journal of Ethnopharmacology*, **166**: 220–227.



Singh, G., Singh, O.P., Prasad, Y.R., Lampasona, M.P. de, dan Catalan, C., 2002.

Studies on essential oils, Part 33: chemical and insecticidal investigations on leaf oil of *Coleus amboinicus* Lour. *Flavour and Fragrance Journal*, **17**: 440–442.

Singhania, R.R., Sukumaran, R.K., Patel, A.K., Larroche, C., dan Pandey, A., 2010.

Advancement and comparative profiles in the production technologies using solid-state and submerged fermentation for microbial cellulases. *Enzyme and Microbial Technology*, **46**: 541–549.

Sivarajanji, D., Saranraj, P., Manigandan, M., dan Amala, K., 2019. Antimicrobial activity of *Plectranthus amboinicus* solvent extracts against Human Pathogenic Bacteria and Fungi. *Journal of Drug Delivery and Therapeutics*, **9**: 36–39.

Siyumbwa, S.N., Ekeuku, S.O., Amini, F., Emerald, N.M., Sharma, D., dan Okechukwu, P.N., 2019. Wound healing and antibacterial activities of 2-Pentadecanone in streptozotocin-induced Type 2 diabetic rats. *Pharmacognosy Magazine*, **15**: 71.

Smith, H., 1995. Physiological and Ecological Function within the Phytochrome Family. *Annual Review of Plant Physiology and Plant Molecular Biology*, **46**: 289–315.

Soliman, S.S.M. dan Raizada, M.N., 2018. Darkness: A Crucial Factor in Fungal Taxol Production. *Frontiers in Microbiology*, **9**: .

Song, R., Wang, J., Sun, L., Zhang, Y., Ren, Z., Zhao, B., dkk., 2019. The study of metabolites from fermentation culture of *Alternaria oxytropis*. *BMC Microbiology*, **19**: 35.

Strobel, G., 2018. The Emergence of Endophytic Microbes and Their Biological Promise. *Journal of Fungi*, **4**: .

Strobel, G., Daisy, B., Castillo, U., dan Harper, J., 2004. Natural products from endophytic microorganisms. *Journal of Natural Products*, **67**: 257–268.

Strobel, G.A., 2003. Endophytes as sources of bioactive products. *Microbes and Infection*, **5**: 535–544.



- Sugijanto, N.E. dan Dorra, B.L., 2016. Antimicrobial Activity of *Cladosporium oxysporum* Endophytic Fungus Extract Isolated From *Aglaia odorata* Lour. *Indonesian Journal of Medicine*, **01**: 108–115.
- Sulaiman, M., Hassan, Y., TaskiN Tok, T., dan Noundou, X.S., 2020. Synthesis, antibacterial activity and docking studies of benzyl alcohol derivatives. *Journal of the Turkish Chemical Society Section A: Chemistry*, 481–488.
- Svendsen, A.B. dan Verpoorte, R. (Eds.), 1983. Chapter 2 Detection of Alkaloids in TLC, dalam: *Journal of Chromatography Library, Chromatography of Alkaloids*. Elsevier, hal. 11–18.
- 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 : eCAM*, **2017**: .
- Swanson, S.K., Mento, S.J., Weeks-Levy, C., Brock, B.D., Kowal, K.J., Wallace, R.E., dkk., 1988. Characterization of Vero cells. *Journal of Biological Standardization*, **16**: 311–320.
- Taufiq, M.M.J. dan Darah, I., 2019. Effects of Cultural Conditions in Enhancing the Production of Anti-MRSA Activity of *Lasiodiplodia pseudotheobromae* IBRL OS-64, an Endophytic Fungus Isolated from Leaf of *Ocimum sanctum* L. in Submerged Fermentation System. *Journal of Pure and Applied Microbiology*, **13**: 2517–2531.
- Thewes, S., Moran, G.P., Magee, B.B., Schaller, M., Sullivan, D.J., dan Hube, B., 2008. Phenotypic screening, transcriptional profiling, and comparative genomic analysis of an invasive and non-invasive strain of *Candida albicans*. *BMC Microbiology*, **8**: 187.
- Tong, S.Y.C., Davis, J.S., Eichenberger, E., Holland, T.L., dan Fowler, V.G., 2015. *Staphylococcus aureus* Infections: Epidemiology, Pathophysiology, Clinical Manifestations, and Management. *Clinical Microbiology Reviews*, **28**: 603–661.



- Traub, W.H. dan Leonhard, B., 1992. Detection of Antimicrobial Drugs with *Bacillus subtilis* strain ATCC 6633: An Update. *Cancer Chemotherapy and Pharmacology*, **38**: 155–158.
- Treangen, T.J., Maybank, R.A., Enke, S., Friss, M.B., Diviak, L.F., Karaolis, D.K.R., dkk., 2014. Complete Genome Sequence of the Quality Control Strain *Staphylococcus aureus* subsp. *aureus* ATCC 25923. *Genome Announcements*, **2**: .
- Tugba Artun, F., Karagoz, A., Ozcan, G., Melikoglu, G., Anil, S., Kultur, S., dkk., 2016. In vitro anticancer and cytotoxic activities of some plant extracts on HeLa and Vero cell lines. *Journal of B.U.ON.: official journal of the Balkan Union of Oncology*, **21**: 720–725.
- Turnbull, P.C.B., 1996. Bacillus, dalam: Baron, S. (Ed.), *Medical Microbiology*. University of Texas Medical Branch at Galveston, Galveston (TX).
- van Meerloo, J., Kaspers, G.J.L., dan Cloos, J., 2011. Cell sensitivity assays: the MTT assay. *Methods in Molecular Biology (Clifton, N.J.)*, **731**: 237–245.
- Venieraki, A., Dimou, M., dan Katinakis, P., 2017. Endophytic fungi residing in medicinal plants have the ability to produce the same or similar pharmacologically active secondary metabolites as their hosts. *Hellenic Plant Protection Journal*, **10**: 51–66.
- Vidyalakshmi, R., Paranthaman, R., dan Indhumathi, J., 2009. Amylase Production on Submerged Fermentation by *Bacillus* spp. *World Journal of Chemistry*, **4**: 89–91.
- Vijayarathna, S. dan Sasidharan, S., 2012. Cytotoxicity of methanol extracts of *Elaeis guineensis* on MCF-7 and Vero cell lines. *Asian Pacific Journal of Tropical Biomedicine*, **2**: 826–829.
- Vodenkova, S., Buchler, T., Cervena, K., Veskrnova, V., Vodicka, P., dan Vymetalkova, V., 2020. 5-fluorouracil and other fluoropyrimidines in colorectal cancer: Past, present and future. *Pharmacology & Therapeutics*, **206**: 107447.



- Vrabl, P., Schinagl, C.W., Artmann, D.J., Heiss, B., dan Burgstaller, W., 2019. Fungal Growth in Batch Culture – What We Could Benefit If We Start Looking Closer. *Frontiers in Microbiology*, **10**: .
- Wang, M., Vogel, I., dan Kalthoff, H., 2003. Correlation between metastatic potential and variants from colorectal tumor cell line HT-29. *World Journal of Gastroenterology*, **9**: 2627–2631.
- Weidenmüller, H.-L., Cavagna, F., Fehlhaber, H.-W., dan Präve, P., 1972. 2-Carboxymethyl-3-n-hexyl-maleic acid anhydride, a novel metabolite from an aspergillus. *Tetrahedron Letters*, **13**: 3519–3522.
- Wesp, E.F. dan Brode, W.R., 1934. The Absorption Spectra of Ferric Compounds. I. The Ferric Chloride—Phenol Reaction. *Journal of the American Chemical Society*, **56**: 1037–1042.
- Wiji Prasetyaningrum, P., Bahtiar, A., dan Hayun, H., 2018. Synthesis and Cytotoxicity Evaluation of Novel Asymmetrical Mono-Carbonyl Analogs of Curcumin (AMACs) against Vero, HeLa, and MCF7 Cell Lines. *Scientia Pharmaceutica*, **86**: .
- Wu, L. dan Qu, X., 2015. Cancer biomarker detection: recent achievements and challenges. *Chemical Society Reviews*, **44**: 2963–2997.
- Xie, J. dan Schaich, K.M., 2014. Re-evaluation of the 2,2-Diphenyl-1-picrylhydrazyl Free Radical (DPPH) Assay for Antioxidant Activity. *Journal of Agricultural and Food Chemistry*, **62**: 4251–4260.
- Yadav, G.D. dan Kamble, S.B., 2009. Synthesis of carvacrol by Friedel–Crafts alkylation of o-cresol with isopropanol using superacidic catalyst UDCaT-5. *Journal of Chemical Technology & Biotechnology*, **84**: 1499–1508.
- 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.
- 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.



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Karakterisasi dan Skrining Potensi Aktivitas Fungi Endofit *Eutypa linearis* dari Daun Tanaman Jinten

(*Coleus amboinicus* Lour.)

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- Yuan, J., Raza, W., Shen, Q., dan Huang, Q., 2012. Antifungal Activity of *Bacillus amyloliquefaciens* NJN-6 Volatile Compounds against *Fusarium oxysporum* f. sp. *cubense*. *Applied and Environmental Microbiology*, **78**: 5942–5944.
- 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, Analytical Technologies in the Biomedical and Life Sciences*, **1039**: 28–34.
- Zajmi, A., Hashim, N.M., Noordin, M.I., Khalifa, S.A.M., Ramli, F., Ali, H.M., dkk., 2015. Ultrastructural Study on the Antibacterial Activity of Artonin E versus Streptomycin against *Staphylococcus aureus* Strains. *PLOS ONE*, **10**: e0128157.
- Zampieri, L., Bianchi, P., Ruff, P., dan Arbuthnot, P., 2002. Differential modulation by estradiol of P-glycoprotein drug resistance protein expression in cultured MCF7 and T47D breast cancer cells. *Anticancer Research*, **22**: 2253–2259.
- Zhang, J.Y., Tao, L.Y., Liang, Y.J., Yan, Y.Y., Dai, C.L., Xia, X.K., dkk., 2009. Secalonic acid D induced leukemia cell apoptosis and cell cycle arrest of G(1) with involvement of GSK-3beta/beta-catenin/c-Myc pathway. *Cell cycle (Georgetown, Tex.)*, **8**: 2444–2450.
- Zhang, N., Yin, Y., Xu, S.-J., dan Chen, W.-S., 2008. 5-Fluorouracil: Mechanisms of Resistance and Reversal Strategies. *Molecules*, **13**: 1551–1569.