

## 7 References

- Agnello, M., & Wong-Beringer, A. (2012). Differentiation in quinolone resistance by virulence genotype in *Pseudomonas aeruginosa*. *PLoS ONE*, 7(8), e42973. <https://doi.org/10.1371/journal.pone.0042973>
- Ahmadi, A., Moghadamtousi, S. Z., Abubakar, S., & Zandi, K. (2015). Antiviral potential of algae polysaccharides isolated from marine sources: A review. *BioMed Research International*, 2015, 825203. <http://doi.org/10.1155/2015/825203>
- Azwanida, N. N. (2015). A review on the extraction methods use in medicinal plants, principle, strength and limitation. *Medicinal and Aromatic Plants*, 4, 196. <http://doi.org/10.4172/2167-0412.1000196>
- Baum, G., Januar, H. I., Ferse, S. C. A., & Kunzmann, A. (2015). Local and regional impacts of pollution on coral reefs along the Thousand Islands north of the megacity Jakarta, Indonesia. *PLoS ONE*, 10(9), e0138271. <http://doi.org/10.1371/journal.pone.0138271>
- Bajpai, V. K. (2016). Antimicrobial bioactive compounds from marine algae: A mini review. *Indian Journal of Geo-marine Sciences*, 45(9), 1076-1085.
- Bakthavatchalam, Y. D., Pragasam, A. K., Biswas, I., & Veeraraghavan, B. (2018). Polymyxin susceptibility testing, interpretative breakpoints and resistance mechanisms: An update. *Journal of Global Antimicrobial Resistance*, 12, 124-136. <https://doi.org/10.1016/j.jgar.2017.09.011>
- Becker, B., & Cooper, M. A. (2013). Aminoglycoside antibiotics in the 21<sup>st</sup> century. *ACS Chemical Biology*, 8(1), 105-115. <https://doi.org/10.1021/cb3005116>
- Bhandari, S., Banjara, M. R., Lekhak, B., Bhatta, D. R., & Regmi, S. R. (2012). Multi-drug and pan-drug resistant *Pseudomonas aeruginosa*: A challenge in post-antibiotic era. *Nepal Journal of Science and Technology*, 13(2), 197-202. <http://doi.org/10.3126/njst.v13i2.7736>
- Bolanos, J. M., Baleta, F. N., & Cairel, J. D. (2017). Antimicrobial properties of *Sargassum* spp. (Phaeophyceae) against selected aquaculture pathogens. *International Journal of Current Microbiology and Applied Sciences*, 6(2), 1024-1037. <http://doi.org/10.20546/ijcmas.2017.602.115>
- Brodsky, M. H., & Nixon, M. C. (1973). Rapid method for detection of *Pseudomonas aeruginosa* on MacConkey agar under ultraviolet light. *Applied Microbiology*, 26(2), 219-220.
- Bruchmann, S. H. G. (2015). *Antibiotic resistance and pathogenicity in the Gram-negative bacteria Pseudomonas aeruginosa and Klebsiella pneumoniae*. (Doctoral dissertation). Braunschweig University of Technology, Germany.
- Cardoso, T., Almeida, M., Friedman, N. D., Aragao, I., Costa-Pereira, A., Sarmento, A. E., & Azevedo, L. (2014). Classification of healthcare-associated infection: A systematic review 10 years after the first proposal. *BMC Medicine*, 12, 40. <http://doi.org/10.1186/1741-7015-12-40>
- Clinical and Laboratory Standards Institute (CLSI). (2015). Performance standards for antimicrobial disk susceptibility tests; Approved standard-Twelfth edition. United States of America: Clinical and Laboratory Standards Institute.
- Clinical and Laboratory Standards Institute (CLSI). (2017). Performance standards for antimicrobial susceptibility testing. United States of America: Clinical and Laboratory Standards Institute.

- Divya, C. V., Devika, V., Asha, K. R. T., & Bharat, G. (2011). Antimicrobial screening of the brown algae *Sargassum cinereum*. *Journal of Pharmacy Research*, 4(2), 420-421.
- Egan, S., Harder, T., Burke, C., Steinberg, P., Kjelleberg, S., & Thomas, T. (2013). The seaweed holobiont: Understanding seaweed-bacteria interactions. *FEMS Microbiology Review*, 37(3), 462-476. <http://doi.org/10.1111/1574-6976.12011>
- European Centre for Disease Prevention and Control (ECDC). (2013). *Point prevalence survey of healthcare-associated infections and antimicrobial use in European acute care hospitals, 2011-2012*. Stockholm: European Centre for Disease Prevention and Control. <https://doi.org/10.2900/86011>
- European Centre for Disease Prevention and Control (ECDC). (2018). *Incidence and attributable mortality of healthcare-associated infections in intensive care units in Europe*. Stockholm: European Centre for Disease Prevention and Control. <https://doi.org/10.2900/118774>
- Eom, S. H., Kim, Y. M., & Kim, S. K. (2012). Antimicrobial effect of phlorotannins from marine brown algae. *Food and Chemical Toxicology*, 50(9), 3251-3255. <http://doi.org/10.1016/j.fct.2012.06.028>
- Farhan, A. R., & Lim, S. (2012). Vulnerability assessment of ecological conditions in Seribu Islands, Indonesia. *Ocean & Coastal Management*, 65, 1-14. <http://doi.org/10.1016/j.ocecoaman.2012.04.015>
- Food and Agricultural Organization of the United Nations (FAO). (2016). *The state of world fisheries and aquaculture*. Rome: FAO Publishing Group.
- Friedman, N. D., Kaye, K. S., Stout, J. E., McGarry, S. A., Trivette, S. L., Briggs, J. P., . . . Sexton, D. J. (2002). Healthcare-associated bloodstream infections in adults: A reason to change the accepted definition of community-acquired infections. *Annals of Internal Medicine*, 137(10), 791-7. <http://doi.org/10.7326/0003-4819-137-10-200211190-00007>
- Friedman, N. D., Levit, D., Taleb, E., Marcus, G., Michaeli, L., Broide, M., . . . Marchaim, D. (2018). Towards a definition for healthcare-associated infection. *Open Forum Infectious Diseases*, 5(6), <https://doi.org/10.1093/ofid/ofy116>
- Garneau-Tsodikova, S., & Labby, K. J. (2016). Mechanisms of resistance to aminoglycoside antibiotics: Overview and perspectives. *MedChemComm*, 7(1), 11-27. <https://doi.org/10.1039/C5MD00344J>
- Gellatly, S. L., & Hancock, R. E. W. (2013). *Pseudomonas aeruginosa*: New insights into pathogenesis and host defenses. *Pathogens and Disease*, 67(3), 159-173. <https://doi.org/10.1111/2049-632X.12033>
- Gill, J. S., Arora, S., Khanna, S. P., & Kumar, K. V. S. H. (2016). Prevalence of multidrug-resistant, extensively drug-resistant, and pandrug-resistant *Pseudomonas aeruginosa* from a tertiary level Intensive Care Unit. *Journal of Global Infectious Diseases*, 8(4), 155-159. <http://doi.org/10.4103/0974-777X.192962>
- Google Maps. (n.d.). [Google Maps locations for -5.865278S, 106.606389E and -5.866667S, 106.606667E]. Retrieved from: <https://bit.ly/2Ji3f0R>.
- Grosso, C., Valentao, P., Ferreres, F., & Andrade, P. B. (2015). Alternative and efficient extraction methods for marine-derived compounds. *Marine Drugs*, 13(5), 3182-3230. <http://doi.org/10.3390/md13053182>

- Hardoko, Siratantri, R., Eveline, Yogabuana, M., & Olivia, S. (2014). An in vitro study of antidiabetic activity of *Sargassum duplicatum* and *Turbinaria decurens* seaweed. *International Journal of Pharmaceutical Science Invention*, 3(2), 13-18.
- Hierholzer, A., Chatellard, L., Kierans, M., Akunna, J. C., & Collier, P. J. (2012). The impact and mode of action of phenolic compounds extracted from brown seaweed on mixed anaerobic microbial cultures. *Journal of Applied Microbiology*, 114(4), 964-973. <http://doi.org/10.1111/jam.12114>
- Irianto, H. E., & Syamididi. (2014). Production, handling and processing of seaweeds in Indonesia. S. K. Kim (Ed.). *Seafood science: Advances in chemistry, technology and applications* (p. 361). Florida, FL: CRC Press.
- Kadam, S. U., Tiwari, B. K., & O'Donnell, C. P. (2015). Extraction, structure and biofunctional activities of laminarin from brown algae. *International Journal of Food Science and Technology*, 50(1), 24-31. <https://doi.org/10.1111/ijfs.12692>
- Kadi, A. (2005). Some notes on the occurrence of genus *Sargassum* in Indonesian waters. *Oseana*, 30(4), 19-29.
- Karbassi, E., Asadinezhad, A., Lehocky, M., Humpolicek, P., Vesel, A., Novak, I., & Saha, P. (2014). Antibacterial performance of alginic acid coating on polyethylene film. *International Journal of Molecular Sciences*, 15(8), 14684-14696. <http://doi.org/10.3390/ijms150814684>
- Klevens, R. M., Edwards, J. R., Richards, C. L., Horan, T. C., Gaynes, R. P., Pollock, D. A., & Cardo, D. M. (2007). Estimating health care-associated infections and deaths in U.S. hospitals, 2002. *Public Health Reports*, 122(2), 160-166. <https://doi.org/10.1177/003335490712200205>
- Li, Y., Fu, X., Duan, D., Liu, X., Xu, J., & Gao, X. (2017). Extraction and identification of phlorotannins from the brown alga, *Sargassum fusiforme* (Harvey) Setchell. *Marine Drugs*, 15(2), 49. <http://doi.org/10.3390/md15020049>
- Lim, S. J., & Aida, W. M. W. (2017). Extraction of sulfated polysaccharides (fucoidan) from brown seaweed. In *Seaweed Polysaccharides* (pp. 27-46). <http://doi.org/10.1016/B978-0-12-809816-5.00003-7>
- Ling, M. L., Apisarnthanarak, A., & Madriaga, G. (2015). The burden of healthcare-associated infections in Southeast Asia: A systematic literature review and meta-analysis. *Clinical Infectious Diseases*, 60(11), 1690-1699. <https://doi.org/10.1093/cid/civ095>
- Lister, P. D., Wolter, D. J., & Hanson, N. D. (2009). Antibacterial-resistant *Pseudomonas aeruginosa*: Clinical impact and complex regulation of chromosomally encoded resistance mechanisms. *Clinical Microbiology Reviews*, 22(4), 582-610. <https://doi.org/10.1128/CMR.00040-09>
- Magill, S. S., Edwards, J. R., Bamberg, W., Beldavs, Z. G., Dumyati, G., Kainer, M. A., . . . Fridkin, S. K. (2014). Multistate point-prevalence survey of healthcare-associated infections. *New England Journal of Medicine*, 370(13), 1198-1208. <https://doi.org/10.1056/NEJMoa1306801>
- Menshova, R. V., Ermakova, S. P., Anastyuk, S. D., Isakov, V. V., Dubrovskaya, Y. V., Kusaykin, M. I., . . . Zvyagintseva, T. N. (2014). Structure, enzymatic transformation and anticancer activity of branched high molecular weight laminaran from brown alga *Eisenia bicyclis*. *Carbohydrate Polymers*, 99, 101-109. <http://doi.org/10.1016/j.carbpol.2013.08.037>
- Misurcova, L. (2011). Chemical composition of seaweeds. Handbook of marine macroalgae: Biotechnology and applied phycology. S. K. Kim (Ed.). <https://doi.org/10.1002/9781119977087.ch7>

- Mohsin, S., Mahadevan, R., Sumayya, A. S., & Kurup, G. M. (2016). Bifunctional effect of fucoidan from *Padina tetrastromatica* against human pathogenic microbes and free radicals. *Journal of Medicinal Herbs and Ethnomedicine*, 2(2), 1-10. <https://doi.org/10.19071/jmhe.2016.v2.2995>
- Morita, Y., Tomida, J., & Kawamura, Y. (2014). Responses of *Pseudomonas aeruginosa* to antimicrobials. *Frontiers in Microbiology*, 4, 422. <https://doi.org/10.3389/fmicb.2013.00422>
- Moubayed, N. M. S., Houri, H. J. A., Khulaifi, M. M. A., & Farraj, D. A. A. (2016). Antimicrobial, antioxidant properties and chemical composition of seaweeds collected from Saudi Arabia (Red Sea and Arabian Gulf). *Saudi Journal of Biological Sciences*, 24, 162-169. <http://doi.org/10.1016/j.sjbs.2016.05.018>
- Mulyati, H. (2016). *Supply chain risk management study of the Indonesian seaweed industry* (Doctoral dissertation). Retrieved from eDiSS. <http://hdl.handle.net/11858/00-1735-0000-0022-606A-8>
- Murray, T. S., & Kazmierczak, B. I. (2008). *Pseudomonas aeruginosa* exhibits sliding motility in the absence of type IV pili and flagella. *Journal of Bacteriology*, 190(8), 2700-2708. <http://doi.org/10.1128/JB.01620-07>
- Nithya, P., & Dhanalakshmi, B. (2016). Antibacterial activity of methanol extracts from selected seaweed of south east coast of India. *International Journal of Applied Research*, 2(9), 714-718.
- Peek, M. E., Bhatnagar, A., McCarty, N. A., & Zuhgaier, S. M. (2012). Pyoverdine, the major siderophore in *Pseudomonas aeruginosa*, evades NGAL recognition. *Interdisciplinary Perspectives on Infectious Diseases*, 2012, 843509. <http://doi.org/10.1155/2012/843509>
- Percival, S. L., Suleman, L., Vuotto, C., & Donelli, G. (2015). Healthcare-associated infections, medical devices and biofilms: Risk, tolerance and control. *Journal of Medical Microbiology*, 64, 323-334. <https://doi.org/10.1099/jmm.0.000032>
- Public Health England (PHE). (2014a). Indole test. UK Standards for Microbiology Investigations. TP19 Issue 3.
- Public Health England (PHE). (2014b). Catalase test. UK Standards for Microbiology Investigations. TP8 Issue 3.
- Public Health England (PHE). (2016). Motility test. UK Standards for Microbiology Investigations. TP21 Issue 3.1.
- Poirel, L., Jayol, A., & Nordmann, P. (2017). Polymyxins: Antibacterial activity, susceptibility testing, and resistance mechanisms encoded by plasmids or chromosomes. *Clinical Microbiology Reviews*, 30(2), 557-596. <http://doi.org/10.1128/CMR.00064-16>
- Puspita, M., Deniel, M., Widowati, I., Radjasa, O. K., Douzenel, P., Marty, C., & Bourgougnon, N. (2017). Antioxidant and antibacterial activity of solid-liquid and enzyme-assisted extraction of phenolic compound from three species of tropical *Sargassum*. *IOP Conference Series: Earth and Environmental Sciences*, 55, 012057. <http://doi.org/10.1088/1755-1315/55/1/012057>
- Redgrave, L. S., Sutton, S. B., Webber, M. A., & Piddock, L. J. V. (2014). Fluoroquinolone resistance: Mechanisms, impact on bacteria, and role in evolutionary success. *Trends in Microbiology*, 22(8). <http://doi.org/10.1016/j.tim.2014.04.007>
- Rosaline, X. D., Sakthivelkumar, S., Rajendran, K., & Janarthanan, S. (2012). Screening of selected marine algae from the coastal Tamil Nadu, South India for antibacterial activity. *Asian Pacific Journal of Tropical Biomedicine*, 2012, S140-S146. [http://doi.org/10.1016/S2221-1691\(12\)60145-2](http://doi.org/10.1016/S2221-1691(12)60145-2)

- Sampedro, I., Parales, R. E., Krell, T., & Hill, J. E. (2015). *Pseudomonas* chemotaxis. *FEMS Microbiology Reviews*, 1(1), 17-46. <https://doi.org/10.1111/1574-6976.12081>
- Schiener, P., Black, K. D., S., M. S., & Green, D. H. (2014). The seasonal variation in the chemical composition of the kelp species *Laminaria digitata*, *Laminaria hyperborea*, *Saccharina latissima* and *Alaria esculenta*. *Journal of Applied Phycology*, 27(1), 363-373. <https://doi.org/10.1007/s10811-014-0327-1>
- Shannon, E., & Abu-Ghannam, N. (2016). Antibacterial derivatives of marine algae: An overview of pharmacological mechanisms and applications. *Marine Drugs*, 14(4), 81. <http://doi.org/10.3390/md14040081>
- Shoubaky, G. A. E., & Salem, E. A. E. R. (2014). Active ingredients fatty acids as antibacterial agent from the brown algae *Padina pavonica* and *Hormophysa triquetra*. *Journal of Coastal Life Medicine*, 2(7), 535-542. <http://doi.org/10.12980/JCLM.2.2014JCLM-2014-0025>
- Singh, R. P., & Reddy, C. R. K. (2014). Seaweed-microbial interactions: Key functions of seaweed-associated bacteria. *FEMS Microbiology Ecology*, 88(2), 213-230. <http://doi.org/10.1111/1574-6941.12297>
- Singh, I., Jaryal, S. C., Thakur, K., Sood, A., Grover, P. S., & Bareja, R. (2015). Isolation and characterization of various *Pseudomonas* species from distinct clinical specimens. *Journal of Dental and Medical Sciences*, 14(6), 80-84. <http://doi.org/10.9790/0853-14668084>
- Siregar, A. F., Sabdono, A., & Pringgenies, D. (2012). Potensi antibakteri ekstrak rumput laut terhadap bakteri penyakit kulit *Pseudomonas aeruginosa*, *Staphylococcus epidermidis*, dan *Micrococcus luteus* [Antibacterial potential of seaweed extract against pathogens of the skin *Pseudomonas aeruginosa*, *Staphylococcus epidermidis*, and *Micrococcus luteus*]. *Journal of Marine Research*, 1(2), 152-160.
- Smyth, A. R., Campbell, E. L. Prescribing practices for intravenous aminoglycosides in UK cystic fibrosis clinics: A questionnaire survey. *Journal of cystic fibrosis*, 14(1), 160. <https://doi.org/10.1016/j.jcf.2013.11.007>
- Sulaiman, O. O., Raship, A. R. N. B. A., Kader, A. S. A., Azman, S., D'Angelo, R., Madonna, A., & Tee, K. F. (2015). Macro algae: Biodiversity, usefulness to humans and spatial study for site selection in oceanic farming. *Journal of Biodiversity & Endangered Species*, S1: 003. <http://doi.org/10.4172/2332-2543.S1-003>
- Szekalska, M., Pucilowska, A., Szymanska, E., Ciosek, P., & Winnicka, K. (2016). Alginate: Current use and future perspectives in pharmaceutical and biomedical applications. *International Journal of Polymer Science*, 2016, 7697031. <http://doi.org/10.1155/2016/7697031>
- Thanigaivel, S., Chandrasekaran, N., Mukherjee, A., & Thomas, J. (2015). Investigation of seaweed extracts as a source of treatment against bacterial fish pathogen. *Aquaculture*, 448, 82-86. <http://doi.org/10.1016/j.aquaculture.2015.05.039>
- Teerawattanapong, N., Panich, P., Kulpokin, D., Ranong, S. N., Kongpakwattana, K., Saksinanon, A., . . . Chaiyakunapruk, N. (2018). A systematic review of the burden of multidrug-resistant healthcare-associated infections among intensive care unit patients in Southeast Asia: The rise of multidrug-resistant *Acinetobacter baumannii*. *Infection Control & Hospital Epidemiology*, 39(5), 525-533. <https://doi.org/10.1017/ice.2018.58>
- Warnadi, S., Setyaningsih, A. I., Kasih, W. A. (2017). Water quality and its effect on seaweed cultivation in Pari Island Kepulauan Seribu DKI Jakarta. *IOP Conference Series: Earth and Environmental Science*, 145, 012145. <http://doi.org/10.1088/1755-1315/145/1/012145>

- Weiner, L. M., Webb, A. K., Limbago, B., Dudeck, M. A., Patel, J., Kallen, A. J., . . . Sievert, D. M. (2016). Antimicrobial-resistant pathogens associated with healthcare-associated infections: Summary of data reported to the National Healthcare Safety Network at the Centers for Disease Control and Prevention, 2011-2014. *Infection Control & Hospital Epidemiology*, 37(11), 1288-1301. <http://doi.org/10.1017/ice.2016.174>
- World Health Organization (WHO). (2011). *Report on the burden of endemic healthcare-associated infection worldwide*. Geneva: WHO Document Production Services.
- Wouthuyzen, S. (n. d.). Application of ALOS AVNIR-2 images for assessing and managing the coastal zone resources in Indonesia.
- Yunianto, H. P., Widowati, I., & Radjasa, O. K. (2014). Skrining antibakteri ekstrak rumput laut *Sargassum plagyophyllum* dari perairan Bandengan Jepara terhadap bakteri pathogen *Enterobacter*, *Pseudomonas aeruginosa* dan *Staphylococcus aureus* [Antibacterial screening of *Sargassum plagyophyllum* seaweed extract from Bandengan Jepara waters against *Enterobacter*, *Pseudomonas aeruginosa* and *Staphylococcus aureus*]. *Journal of Marine Research*, 3(3), 165-172.
- Zhang, Q. W., Lin, L. G., & Ye, W. C. (2018). Techniques for extraction and isolation of natural products: A comprehensive review. *Chinese Medicine*, 13, 20. <http://doi.org/10.1186/s13020-018-0177-x>