

## References

- Abbey, T. C., & Deak, E. (2019). What's New from the CLSI Subcommittee on Antimicrobial Susceptibility Testing M100, 29th Edition. *Clinical Microbiology Newsletter*, 41(23), 203–209. <https://doi.org/10.1016/j.clinmicnews.2019.11.002>
- Altemimi, A., Lakhssassi, N., Baharlouei, A., Watson, D., & Lightfoot, D. (2017). Phytochemicals: Extraction, Isolation, and Identification of Bioactive Compounds from Plant Extracts. *Plants*, 6(4), 42. <https://doi.org/10.3390/plants6040042>
- Aly, R. (2014). Microbial Infections of Skin and Nails. Retrieved from Nih.gov website: <https://www.ncbi.nlm.nih.gov/books/NBK8301/>
- Ariastuti, R., Anam, K., & Pamungkas, I. Y. (2018). Efektivitas Analgesik Daun Gatal (*Laportea Decumana*) Pada Penderita Myalgia di Kampung ATSJ Distrik ATSJ Kabupaten Asmat Provinsi Papua. *Jurnal Kebidanan*, 50-60.
- Barber, R. D., Harmer, D. W., Coleman, R. A., & Clark, B. J. (2005). GAPDH as a housekeeping gene: analysis of GAPDH mRNA expression in a panel of 72 human tissues. *Physiological Genomics*, 21(3), 389–395. <https://doi.org/10.1152/physiolgenomics.00025.2005>
- Barbosa-Filho, J. M., Piuvezam, M. R., Moura, M. D., Silva, M. S., Lima, K. V. B., da-Cunha, E. V. L., Fechine, I. M., & Takemura, O. S. (2006). Anti-inflammatory activity of alkaloids: a twenty-century review. *Revista Brasileira de Farmacognosia*, 16(1), 109–139. <https://doi.org/10.1590/s0102-695x2006000100020>
- Beg, S., Hasan, H., Hussain, M. S., Swain, S., & Barkat, Ma. (2011). Systematic review of herbals as potential anti-inflammatory agents: Recent advances, current clinical status and future perspectives. *Pharmacognosy Reviews*, 5(10), 120. <https://doi.org/10.4103/0973-7847.91102>
- Berg, K., Zhai, L., Chen, M., Kharazmi, A., & Owen, T. C. (1994). The use of a water-soluble formazan complex to quantitate the cell number and mitochondrial function of *Leishmania major* promastigotes. *Parasitology Research*, 80(3), 235–239. <https://doi.org/10.1007/bf00932680>

- Bhatti, M. Z., Ismail, H., & Kayani, W. K. (2022). Plant Secondary Metabolites: Therapeutic Potential and Pharmacological Properties. *Secondary Metabolites - Trends and Reviews*.  
<https://doi.org/10.5772/intechopen.103698>
- Bowler, P. G., Duerden, B. I., & Armstrong, D. G. (2001). Wound Microbiology and Associated Approaches to Wound Management. *Clinical Microbiology Reviews*, 14(2), 244–269.  
<https://doi.org/10.1128/cmr.14.2.244-269.2001>
- Burnett-Boothroyd, S. C., & McCarthy, B. J. (2011). Antimicrobial treatments of textiles for hygiene and infection control applications: an industrial perspective. *Textiles for Hygiene and Infection Control*, 196–209. <https://doi.org/10.1533/9780857093707.3.196>
- Byrd, A. L., Belkaid, Y., & Segre, J. A. (2018). The human skin microbiome. *Nature Reviews Microbiology*, 16(3), 143–155. <https://doi.org/10.1038/nrmicro.2017.157>
- Cabral, B., Siqueira, E. M. S., Bitencourt, M. A. O., Lima, M. C. J. S., Lima, A. K., Ortmann, C. F., Chaves, V. C., Fernandes-Pedrosa, M. F., Rocha, H. A. O., Scortecci, K. C., Reginatto, F. H., Giordani, R. B., & Zucolotto, S. M. (2016). Phytochemical study and anti-inflammatory and antioxidant potential of *Spondias mombin* leaves. *Revista Brasileira de Farmacognosia*, 26, 304–311.  
<https://doi.org/10.1016/j.bjp.2016.02.002>
- Carpinetti, P. de A., Fioresi, V. S., Ignez da Cruz, T., de Almeida, F. A. N., Canal, D., Ferreira, A., & Ferreira, M. F. da S. (2021). Efficient method for isolation of high-quality RNA from *Psidium guajava* L. tissues. *PLOS ONE*, 16(7), e0255245. <https://doi.org/10.1371/journal.pone.0255245>
- Chavan, S. S., Damale, M. G., Shinde, D. B., & Sangshetti, J. N. (2018). Antibacterial and Antifungal Drugs from Natural Source: A Review of Clinical Development. *Natural Products in Clinical Trials Volume 1, 1*, 114–164. <https://doi.org/10.2174/9781681082134118010006>
- Chen, H., Zhang, J., He, Y., Lv, Z., Liang, Z., Chen, J., Li, P., Liu, J., Yang, H., Tao, A., & Liu, X. (2022). Exploring the Role of *Staphylococcus aureus* in Inflammatory Diseases. *Toxins*, 14(7), 464.  
<https://doi.org/10.3390/toxins14070464>

- Chu, M., Ding, R., Chu, Z., Zhang, M., Liu, X., Xie, S., Zhai, Y., & Wang, Y. (2014). Role of berberine in anti-bacterial as a high-affinity LPS antagonist binding to TLR4/MD-2 receptor. *BMC Complementary and Alternative Medicine*, *14*(1). <https://doi.org/10.1186/1472-6882-14-89>
- Coorevits, L., Boelens, J., & Claeys, G. (2015). Direct susceptibility testing by disk diffusion on clinical samples: a rapid and accurate tool for antibiotic stewardship. *European Journal of Clinical Microbiology & Infectious Diseases*, *34*(6), 1207–1212. <https://doi.org/10.1007/s10096-015-2349-2>
- Cory, A. H., Owen, T. C., Bartrop, J. A., & Cory, J. G. (1991). Use of an Aqueous Soluble Tetrazolium/Formazan Assay for Cell Growth Assays in Culture. *Cancer Communications*, *3*(7), 207–212. <https://doi.org/10.3727/095535491820873191>
- Darsana, I. G. O., Besung, I. N. K., & Mahatmi, H. (2012). Potensi Daun Binahong (Anredera Cordifolia (Tenore) Steenis) dalam Menghambat Pertumbuhan Bakteri Escherichia Coli secara In Vitro. *Indonesia Medicus Veterinus*, *1*(3). <https://ojs.unud.ac.id/index.php/imv/article/view/1879>
- Dayan, G. H., Mohamed, N., Scully, I. L., Cooper, D., Begier, E., Eiden, J., Jansen, K. U., Gurtman, A., & Anderson, A. S. (2016). Staphylococcus aureus: the current state of disease, pathophysiology and strategies for prevention. *Expert Review of Vaccines*, *15*(11), 1373–1392. <https://doi.org/10.1080/14760584.2016.1179583>
- DeLeo, F. R., Diep, B. A., & Otto, M. (2009). Host Defense and Pathogenesis in Staphylococcus aureus Infections. *Infectious Disease Clinics of North America*, *23*(1), 17–34. <https://doi.org/10.1016/j.idc.2008.10.003>
- Dissemond, J., Schmid, E. N., Esser, S., Witthoff, M., & Goos, M. (2004). Bakterielle Kolonisation chronischer Wunden. *Der Hautarzt*, *55*(3), 280–288. <https://doi.org/10.1007/s00105-004-0697-4>
- Dogan, G., Kara, N., Bagci, E., & Gur, S. (2017). Chemical composition and biological activities of leaf and fruit essential oils from Eucalyptus camaldulensis. *Zeitschrift Für Naturforschung C*, *72*(11-12), 483–489. <https://doi.org/10.1515/znc-2016-0033>

- Doughari, J. H. (2012). Phytochemicals: Extraction Methods, Basic Structures and Mode of Action as Potential Chemotherapeutic Agents. In Dr Venketeshwer Rao (Ed.), *Phytochemicals - A Global Perspective of Their Role in Nutrition and Health*. InTech. <https://doi.org/10.5772/26052>
- Elsinghorst, E. A. (1994). Measurement of invasion by gentamicin resistance. *Methods in Enzymology*, 405–420. [https://doi.org/10.1016/0076-6879\(94\)36030-8](https://doi.org/10.1016/0076-6879(94)36030-8)
- Emmerson, A. M. (2003). The quinolones: decades of development and use. *Journal of Antimicrobial Chemotherapy*, 51(90001), 13–20. <https://doi.org/10.1093/jac/dkg208>
- Farooq, S., Mir, S. A., Shah, M. A., & Manickavasagan, A. (2022). Extraction techniques. *Plant Extracts: Applications in the Food Industry*, 23–37. <https://doi.org/10.1016/b978-0-12-822475-5.00005-3>
- Ferrero-Miliani, L., Nielsen, O. H., Andersen, P. S., & Girardin, S. E. (2006). Chronic inflammation: importance of NOD2 and NALP3 in interleukin-1 $\beta$  generation. *Clinical and Experimental Immunology*, 0(0), 061127015327006-??? <https://doi.org/10.1111/j.1365-2249.2006.03261.x>
- FIALHO, L., CUNHA-E-SILVA, J. A., SANTA-MARIA, A. F., MADUREIRA, F. A., & IGLESIAS, A. C. (2018). Comparative study of systemic early postoperative inflammatory response among elderly and non-elderly patients undergoing laparoscopic cholecystectomy. *Revista Do Colégio Brasileiro de Cirurgiões*, 45(1). <https://doi.org/10.1590/0100-6991e-20181586>
- Foster, T. J. (2005). Immune evasion by staphylococci. *Nature Reviews Microbiology*, 3(12), 948–958. <https://doi.org/10.1038/nrmicro1289>
- Foster, T. J., Geoghegan, J. A., Ganesh, V. K., & Höök, M. (2014). Adhesion, invasion and evasion: the many functions of the surface proteins of *Staphylococcus aureus*. *Nature Reviews Microbiology*, 12(1), 49–62. <https://doi.org/10.1038/nrmicro3161>
- Gnanamani, A., Hariharan, P., & Paul-Satyaseela, M. (2017). *Staphylococcus aureus*: Overview of Bacteriology, Clinical Diseases, Epidemiology, Antibiotic Resistance and Therapeutic Approach. *Frontiers in Staphylococcus Aureus*. <https://doi.org/10.5772/67338>

- Golkar, Z., Bagasra, O., & Pace, D. G. (2014). Bacteriophage therapy: a potential solution for the antibiotic resistance crisis. *The Journal of Infection in Developing Countries*, *8*(02), 129-136.
- Gould, I. M., & Bal, A. M. (2013). New antibiotic agents in the pipeline and how they can help overcome microbial resistance. *Virulence*, *4*(2), 185-191.
- Harefa, D. (2020). Pemanfaatan Hasil Tanaman Sebagai Tanaman Obat Keluarga (TOGA). *Madani : Indonesian Journal of Civil Society*, *2*(2), 28–36. <https://doi.org/10.35970/madani.v2i2.233>
- Heatley, N. G. (1944). A method for the assay of penicillin. *Biochemical Journal*, *38*(1), 61.
- Hestingtyas, B., Siallagan, J., & Holle, E. (2019). Uji Aktivitas Ekstrak Daun Gatal (*Laportea decumanum* (Roxb.) Kuntze) Sebagai Antioksidan. *Jurnal Kimia*, *3*(1), 1–5.
- Hughes, D., & Karlén, A. (2014). Discovery and preclinical development of new antibiotics. *Upsala Journal of Medical Sciences*, *119*(2), 162–169. <https://doi.org/10.3109/03009734.2014.896437>
- Humphries, R. M., Ambler, J., Mitchell, S. L., Castanheira, M., Dingle, T., Hindler, J. A., Koeth, L., Sei, K., Hardy, D., Zimmer, B., Butler-Wu, S., Dien Bard, J., Brasso, B., Shawar, R., Dingle, T., Humphries, R., Sei, K., & Koeth, L. (2018). CLSI Methods Development and Standardization Working Group Best Practices for Evaluation of Antimicrobial Susceptibility Tests. *Journal of Clinical Microbiology*, *56*(4). <https://doi.org/10.1128/jcm.01934-17>
- Ionin, B., Hammamieh, R., Shupp, J. W., Das, R., Pontzer, C. H., & Jett, M. (2008). Staphylococcal enterotoxin B causes differential expression of Rnd3 and RhoA in renal proximal tubule epithelial cells while inducing actin stress fiber assembly and apoptosis. *Microbial Pathogenesis*, *45*(5-6), 303–309. <https://doi.org/10.1016/j.micpath.2008.07.002>
- Khameneh, B., Diab, R., Ghazvini, K., & Bazzaz, B. S. F. (2016). Breakthroughs in bacterial resistance mechanisms and the potential ways to combat them. *Microbial Pathogenesis*, *95*, 32-42.
- Kitur, K., Wachtel, S., Brown, A. O., Wickersham, M., Paulino, F., Peñaloza, H. F., Soong, G., Bueno, S. M., Parker, D., & Prince, A. (2016). Necroptosis Promotes *Staphylococcus aureus* Clearance by

- Inhibiting Excessive Inflammatory Signaling. *Cell Rep*, 16(8), 2219–2230.  
<https://doi.org/10.1016/j.celrep.2016.07.039>
- Kohanski, M. A., Dwyer, D. J., & Collins, J. J. (2010). How Antibiotics Kill bacteria: from Targets to Networks. *Nature Reviews Microbiology*, 8(6), 423–435. <https://doi.org/10.1038/nrmicro2333>
- Kuete, V., Karaosmanoğlu, O., & Sivas, H. (2017). Anticancer Activities of African Medicinal Spices and Vegetables. *Medicinal Spices and Vegetables from Africa*, 271–297.  
<https://doi.org/10.1016/b978-0-12-809286-6.00010-8>
- Kwieceński, J. M., & Horswill, A. R. (2020). Staphylococcus aureus bloodstream infections: pathogenesis and regulatory mechanisms. *Current Opinion in Microbiology*, 53, 51–60.  
<https://doi.org/10.1016/j.mib.2020.02.005>
- Kwon, H. I., Jeong, N. H., Kim, S. Y., Kim, M. H., Son, J. H., Jun, S. H., Kim, S., Jeon, H., Kang, S. C., Kim, S. H., & Lee, J. C. (2019). Inhibitory effects of thymol on the cytotoxicity and inflammatory responses induced by Staphylococcus aureus extracellular vesicles in cultured keratinocytes. *Microbial Pathogenesis*, 134, 103603. <https://doi.org/10.1016/j.micpath.2019.103603>
- Lapornik, B., Prošek, M., & Golc Wondra, A. (2005). Comparison of extracts prepared from plant by-products using different solvents and extraction time. *Journal of Food Engineering*, 71(2), 214–222. <https://doi.org/10.1016/j.jfoodeng.2004.10.036>
- Lawrence, T. (2009). The Nuclear Factor NF- B Pathway in Inflammation. *Cold Spring Harbor Perspectives in Biology*, 1(6), a001651–a001651.  
<https://doi.org/10.1101/cshperspect.a001651>
- Lebre, M. C., van der Aar, A. M. G., van Baarsen, L., van Capel, T. M. M., Schuitemaker, J. H. N., Kapsenberg, M. L., & de Jong, E. C. (2007). Human Keratinocytes Express Functional Toll-Like Receptor 3, 4, 5, and 9. *Journal of Investigative Dermatology*, 127(2), 331–341.  
<https://doi.org/10.1038/sj.jid.5700530>
- Licitra, G. (2013). Etymologia:Staphylococcus. *Emerging Infectious Diseases*, 19(9).  
<https://doi.org/10.3201/eid1909.et1909>

- Liu, C. H., Abrams, N. D., Carrick, D. M., Chander, P., Dwyer, J., Hamlet, M. R. J., Macchiarini, F., PrabhuDas, M., Shen, G. L., Tandon, P., & Vedamony, M. M. (2017). Biomarkers of chronic inflammation in disease development and prevention: challenges and opportunities. *Nature Immunology*, *18*(11), 1175–1180. <https://doi.org/10.1038/ni.3828>
- Liu, G. Y., Essex, A., Buchanan, J. T., Datta, V., Hoffman, H. M., Bastian, J. F., Fierer, J., & Nizet, V. (2005). Staphylococcus aureus golden pigment impairs neutrophil killing and promotes virulence through its antioxidant activity. *The Journal of Experimental Medicine*, *202*(2), 209–215. <https://doi.org/10.1084/jem.20050846>
- Livermore, D. M. (2012). Current epidemiology and growing resistance of gram-negative pathogens. *The Korean journal of internal medicine*, *27*(2), 128.
- Lopez-Ojeda, W., Pandey, A., Alhaji, M., & Oakley, A. M. (2020). Anatomy, Skin (Integument). Retrieved from PubMed website: <https://www.ncbi.nlm.nih.gov/books/NBK441980/>
- Ma, H., Bell, K. N., & Loker, R. N. (2020). Development and Validation of qPCR and RT-qPCR: Regulatory Points to Consider When Conducting Biodistribution and Vector Shedding Studies of Gene and Cell Therapy Products. *Molecular Therapy - Methods & Clinical Development*, *20*. <https://doi.org/10.1016/j.omtm.2020.11.007>
- Ma, Z., Huang, B., Xu, S., Chen, Y., Li, S., & Lin, S. (2015). Isolation of High-Quality Total RNA from Chinese Fir (*Cunninghamia lanceolata* (Lamb.) Hook). *PLOS ONE*, *10*(6), e0130234. <https://doi.org/10.1371/journal.pone.0130234>
- Mariani, R., Sukandar, E. Y., & Suganda, A. G. (2014). Antimicrobial activity from Indonesian urticaceae. *International Journal of Pharmacy and Pharmaceutical Sciences*, *6*(4), 191–193.
- Markom, M., Hassim, N., Anuar, N., & Baharum, S. N. (2014). Solvent Selection in Extraction of Essential Oil and Bioactive Compounds from *Polygonum minus*. *Journal of Applied Sciences*, *14*(13), 1440–1444. <https://doi.org/10.3923/jas.2014.1440.1444>
- Mempel, M., Schnopp, C., Hojka, M., Fesq, H., Weidinger, S., Schaller, M., Korting, H. C., Ring, J., & Abeck, D. (2002). Invasion of human keratinocytes by *Staphylococcus aureus* and intracellular

- bacterial persistence represent haemolysin-independent virulence mechanisms that are followed by features of necrotic and apoptotic keratinocyte cell death. *British Journal of Dermatology*, 146(6), 943–951. <https://doi.org/10.1046/j.1365-2133.2002.04752.x>
- Miller, L. G., & Diep, B. A. (2008). Colonization, Fomites, and Virulence: Rethinking the Pathogenesis of Community-Associated Methicillin-Resistant *Staphylococcus aureus* Infection. *Clinical Infectious Diseases*, 46(5), 752–760. <https://doi.org/10.1086/526773>
- Montesano, D., & Gallo, M. (2023, January 1). 1.09 - Sustainable Approaches for the Extraction and Characterization of Phytochemicals from Food Matrices (P. Ferranti, Ed.). ScienceDirect; Elsevier. <https://www.sciencedirect.com/science/article/abs/pii/B978012823960500055X>
- Mukherjee, R., Priyadarshini, A., Pati Pandey, R., & Samuel Raj, V. (2021). Antimicrobial Resistance in *Staphylococcus aureus*. *Insights into Drug Resistance in Staphylococcus Aureus*. <https://doi.org/10.5772/intechopen.96888>
- Mulder, G. D., Cavorsi, J. P., & Lee, D. K. (2007). Polyhexamethylene Biguanide (PHMB): An Addendum to Current Topical Antimicrobials. *Wounds : a compendium of clinical research and practice*, 19(7), 173–182.
- Musa, K. H., Abdullah, A., Jusoh, K., & Subramaniam, V. (2011). Antioxidant Activity of Pink-Flesh Guava (*Psidium guajava* L.): Effect of Extraction Techniques and Solvents. *Food Analytical Methods*, 4(1), 100–107. <https://doi.org/10.1007/s12161-010-9139-3>
- Natsidis, P., Schiffer, P. H., Salvador-Martínez, I., & Telford, M. J. (2019). Computational discovery of hidden breaks in 28S ribosomal RNAs across eukaryotes and consequences for RNA Integrity Numbers. *Scientific Reports*, 9(1), 19477. <https://doi.org/10.1038/s41598-019-55573-1>
- NCBI. (2023a). *CXCL8 C-X-C motif chemokine ligand 8 [Homo sapiens (human)]* - Gene - NCBI. [Www.ncbi.nlm.nih.gov. https://www.ncbi.nlm.nih.gov/gene/3576](https://www.ncbi.nlm.nih.gov/gene/3576)
- NCBI. (2023b). *IL6 interleukin 6 [Homo sapiens (human)]* - Gene - NCBI. [Www.ncbi.nlm.nih.gov. https://www.ncbi.nlm.nih.gov/gene/3569#summary](https://www.ncbi.nlm.nih.gov/gene/3569#summary)



- Ngo, Q. V., Faass, L., Sähr, A., Hildebrand, D., Eigenbrod, T., Heeg, K., & Nurjadi, D. (2022). Inflammatory Response Against *Staphylococcus aureus* via Intracellular Sensing of Nucleic Acids in Keratinocytes. *Frontiers in Immunology*, 13. <https://doi.org/10.3389/fimmu.2022.828626>
- Nunes, C. dos R., Barreto Arantes, M., Menezes de Faria Pereira, S., Leandro da Cruz, L., de Souza Passos, M., Pereira de Moraes, L., Vieira, I. J. C., & Barros de Oliveira, D. (2020). Plants as Sources of Anti-Inflammatory Agents. *Molecules*, 25(16), 3726. <https://doi.org/10.3390/molecules25163726>
- O'Toole, S. A., Sheppard, B. L., McGuinness, E. P. J., Gleeson, N. C., Yoneda, M., & Bonnar, J. (2003). The MTS assay as an indicator of chemosensitivity/resistance in malignant gynaecological tumours. *Cancer Detection and Prevention*, 27(1), 47–54. [https://doi.org/10.1016/s0361-090x\(02\)00171-x](https://doi.org/10.1016/s0361-090x(02)00171-x)
- Oloyede, G. K., & Ayanbadejo, O. E. (2014). Phytochemical, toxicity, antimicrobial and antioxidant screening of extracts obtained from *Laportea aestuans* (Gaud). *Journal Of Medical Sciences*, 14(2), 51-59. doi: 10.3923/jms.2014.51.59
- Oloyede, G. K., & Oyelola, M. S. (2013). Chrysen-2-ol derivative from west indian wood nettle *Laportea aestuans* (L.) chew inhibits oxidation and microbial growth in vitro. *EXCLI journal*, 12, 894.
- Oxford, J., & Kozlov, R. (2013). Antibiotic resistance—a call to arms for primary healthcare providers. *International Journal of Clinical Practice*, 67, 1-3.
- Peng, J., Zheng, T.-T., Li, X., Liang, Y., Wang, L.-J., Huang, Y.-C., & Xiao, H.-T. (2019). Plant-Derived Alkaloids: The Promising Disease-Modifying Agents for Inflammatory Bowel Disease. *Frontiers in Pharmacology*, 10. <https://doi.org/10.3389/fphar.2019.00351>
- Pertiwi, K. K. (2019). Aktivitas Antibakteri Herba Daun Gatal (*Laportea interupta* L. Chew) terhadap *Staphylococcus aureus* dan *Escherichia coli*. *J-HESTECH (Journal of Health Educational Science and Technology)*, 2(1), 43. <https://doi.org/10.25139/htc.v2i1.1558>
- PHIL. (1956). Details - Public Health Image Library(PHIL). Retrieved from [phil.cdc.gov](http://phil.cdc.gov) website: <https://phil.cdc.gov/Details.aspx?pid=2110>

- POWO. (1856). *Laportea decumana* (Roxb.) Wedd. | Plants of the World Online | Kew Science. Retrieved November 13, 2022, from Plants of the World Online website: <https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:854252-1>
- Prakash, V. (2017). TERPENOIDS AS SOURCE OF ANTI-INFLAMMATORY COMPOUNDS. *Asian Journal of Pharmaceutical and Clinical Research*, 10(3), 68. <https://doi.org/10.22159/ajpcr.2017.v10i3.16435>
- Rasigade, J.-P., & Vandenesch, F. (2014). Staphylococcus aureus: A pathogen with still unresolved issues. *Infection, Genetics and Evolution*, 21, 510–514. <https://doi.org/10.1016/j.meegid.2013.08.018>
- Rasul, M. G. (2018). Conventional Extraction Methods Use in Medicinal Plants, their Advantages and Disadvantages. *International Journal of Basic Sciences and Applied Computing (IJBSAC)*, 2(6), 10–14.
- Robertson, J. M., & Walsh-Weller, J. (1998). An introduction to PCR primer design and optimization of amplification reactions. *Forensic DNA profiling protocols*, 121-154.
- Ross, A., & Shoff, H. W. (2019, June 22). *Toxic Shock Syndrome*. Nih.gov; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK459345/>
- SantaLucia, J. (2007). Physical principles and visual-OMP software for optimal PCR design. *PCR primer design*, 3-33.
- Sarker, S. D., Latif, Z., & Gray, A. I. (2006). Natural Product Isolation. *Natural Products Isolation*, 1–25. <https://doi.org/10.1385/1-59259-955-9:1>
- Schoop, V. M., Fusenig, N. E., & Mirancea, N. (1999). Epidermal Organization and Differentiation of HaCaT Keratinocytes in Organotypic Coculture with Human Dermal Fibroblasts. *Journal of Investigative Dermatology*, 112(3), 343–353. <https://doi.org/10.1046/j.1523-1747.1999.00524.x>

- Sebei, K., Sakouhi, F., Herchi, W., Khouja, M., & Boukhchina, S. (2015). Chemical composition and antibacterial activities of seven Eucalyptus species essential oils leaves. *Biological Research*, 48(1), 7. <https://doi.org/10.1186/0717-6287-48-7>
- Seidel, V. (2008). Initial and Bulk Extraction. *Natural Products Isolation*, 20, 27–46. <https://doi.org/10.1385/1-59259-955-9:27>
- Seo, M.-D., Kang, T.-J., Lee, C.-H., Lee, A.-Y., & Noh, M.-S. (2012). HaCaT Keratinocytes and Primary Epidermal Keratinocytes Have Different Transcriptional Profiles of Cornified Envelope-Associated Genes to T Helper Cell Cytokines. *Biomolecules and Therapeutics*, 20(2), 171–176. <https://doi.org/10.4062/biomolther.2012.20.2.171>
- Sharma, A., & Puhar, A. (2019). Gentamicin Protection Assay to Determine the Number of Intracellular Bacteria during Infection of Human TC7 Intestinal Epithelial Cells by *Shigella flexneri*. *BIO-PROTOCOL*, 9(13). <https://doi.org/10.21769/bioprotoc.3292>
- Simaremare, E. S. (2014). Skrining Fitokimia Ekstrak Etanol Daun Gatal (*Laportea Decumana* (Roxb.) Wedd). *Pharmacy: Jurnal Farmasi Indonesia*, 11(1). <https://doi.org/10.30595/pji.v11i1.855>
- Simaremare, E. S., Holle, E., Gunawan, E., Yabansabra, Y. R., Octavia, F., & Pratiwi, R. D. (2018). Toxicity, antioxidant, analgesic, and anti-inflamantory of ethanol extract of *Laportea aestuans* (Linn.) Chew. *Journal of Chemical and Pharmaceutical Research*, 10(5), 16-23.
- Simaremare, E. S., Ruban, A., & Runtuboi, D. Y. P. (2018). Aktivitas Antibakteri Ekstrak Etanol Daun Gatal (*Laportea aestuans* (L.) Chew). *JURNAL BIOLOGI PAPUA*, 9(1), 1–7. <https://doi.org/10.31957/jbp.101>
- Simonsen, G. S. (2018). Antimicrobial resistance surveillance in Europe and beyond. *Eurosurveillance*, 23(42). <https://doi.org/10.2807/1560-7917.es.2018.23.42.1800560>
- Soe, Y. M., Bedoui, S., Stinear, T. P., & Hachani, A. (2021). Intracellular *Staphylococcus aureus* and host cell death pathways. *Cellular Microbiology*, 23(5). <https://doi.org/10.1111/cmi.13317>

- Stevens, D. L., & Bryant, A. E. (2016). Impetigo, Erysipelas and Cellulitis (J. J. Ferretti, D. L. Stevens, & V. A. Fischetti, Eds.). Retrieved from PubMed website: <https://www.ncbi.nlm.nih.gov/books/NBK333408/>
- Sumayya, S. S., Lubaina, A. S., & Murugan, K. (2020). Bactericidal Potentiality of Purified Terpenoid Extracts from the Selected Sea Weeds and its Mode of Action. *Journal of Tropical Life Science*, 10(3). <https://doi.org/10.11594/jtls.10.03.03>
- Tam, K., & Torres, V. J. (2019). Staphylococcus aureus Secreted Toxins and Extracellular Enzymes. *Microbiology Spectrum*, 7(2). <https://doi.org/10.1128/microbiolspec.gpp3-0039-2018>
- Tanaka, T., Narazaki, M., & Kishimoto, T. (2014). IL-6 in Inflammation, Immunity, and Disease. *Cold Spring Harbor Perspectives in Biology*, 6(10), a016295–a016295. <https://doi.org/10.1101/cshperspect.a016295>
- Tominaga, H., Ishiyama, M., Ohseto, F., Sasamoto, K., Hamamoto, T., Suzuki, K., & Watanabe, M. (1999). A water-soluble tetrazolium salt useful for colorimetric cell viability assay. *Analytical Communications*, 36(2), 47–50. <https://doi.org/10.1039/a809656b>
- Tong, S. Y. C., Davis, J. S., Eichenberger, E., Holland, T. L., & Fowler, V. G. (2015). Staphylococcus aureus Infections: Epidemiology, Pathophysiology, Clinical Manifestations, and Management. *Clinical Microbiology Reviews*, 28(3), 603–661. <https://doi.org/10.1128/cmr.00134-14>
- Tripathi, N., & Sapra, A. (2022). *Gram Staining*. PubMed; StatPearls Publishing. [https://www.ncbi.nlm.nih.gov/books/NBK562156/#\\_ncbi\\_dlg\\_citbx\\_NBK562156](https://www.ncbi.nlm.nih.gov/books/NBK562156/#_ncbi_dlg_citbx_NBK562156)
- Truong, D.-H., Nguyen, D. H., Ta, N. T. A., Bui, A. V., Do, T. H., & Nguyen, H. C. (2019, February 3). *Evaluation of the Use of Different Solvents for Phytochemical Constituents, Antioxidants, and In Vitro Anti-Inflammatory Activities of Severinia buxifolia*. *Journal of Food Quality*. <https://www.hindawi.com/journals/jfq/2019/8178294/>
- Vigil, A. L. M., Palou, E., & Alzamora, S. (2005). Naturally occurring compounds – plant sources. In P. M. Davidson, J. N. Sofos, & A. L. Branen (Eds.), *Antimicrobials in Food*. CRC Press.

- Wang, D.-C., Yu, L., Xiang, H., Fan, J., He, L., Guo, N., Feng, H., & Deng, X. (2008). Global transcriptional profiles of *Staphylococcus aureus* treated with berberine chloride. *FEMS Microbiol Lett.*, *279*(2), 217–225. <https://doi.org/10.1111/j.1574-6968.2007.01031.x>
- Wang, T.-H., Hsia, S.-M., Wu, C.-H., Ko, S.-Y., Chen, M. Y., Shih, Y.-H., Shieh, T.-M., Chuang, L.-C., & Wu, C.-Y. (2016). Evaluation of the Antibacterial Potential of Liquid and Vapor Phase Phenolic Essential Oil Compounds against Oral Microorganisms. *PLOS ONE*, *11*(9), e0163147. <https://doi.org/10.1371/journal.pone.0163147>
- Weiss, U. (2008). Inflammation. *Nature*, *454*(7203), 427–427. <https://doi.org/10.1038/454427a>
- WHO. (2009). *Medicinal plants in Papua New Guinea : information on 126 commonly used medicinal plants in Papua New Guinea*. Manila, Philippines: World Health Organization, Western Pacific Region.
- Wiegand, C., Abel, M. D., Ruth, P., & Uta-Christina Hipler. (2009). HaCaT keratinocytes in co-culture with *Staphylococcus aureus* can be protected from bacterial damage by polihexanide. *Wound Repair Regen.*, *17*(5), 730–738. <https://doi.org/10.1111/j.1524-475x.2009.00536.x>
- Wilson, V. G. (2013). Growth and Differentiation of HaCaT Keratinocytes. *Methods in Molecular Biology*, 33–41. [https://doi.org/10.1007/7651\\_2013\\_42](https://doi.org/10.1007/7651_2013_42)
- Wrońska, N., Szlaur, M., Zawadzka, K., & Lisowska, K. (2022). The Synergistic Effect of Triterpenoids and Flavonoids—New Approaches for Treating Bacterial Infections? *Molecules*, *27*(3), 847. <https://doi.org/10.3390/molecules27030847>
- Xie, Z., Peng, Y., Li, C., Luo, X., Wei, Z., Li, X., Yao, Y., Fang, T., & Huang, L. (2020). Growth kinetics of *Staphylococcus aureus* and background microorganisms in camel milk. *Journal of Dairy Science*, *103*(11), 9958–9968. <https://doi.org/10.3168/jds.2020-18616>
- Yan, Y., Li, X., Zhang, C., Lv, L., Gao, B., & Li, M. (2021). Research Progress on Antibacterial Activities and Mechanisms of Natural Alkaloids: A Review. *Antibiotics*, *10*(3), 318. <https://doi.org/10.3390/antibiotics10030318>

- Yang, W., Chen, X., Li, Y., Guo, S., Wang, Z., & Yu, X. (2020). Advances in Pharmacological Activities of Terpenoids. *Natural Product Communications*, 15(3), 1934578X2090355. <https://doi.org/10.1177/1934578x20903555>
- Yanti, S. (2022). Potensi Antimikroba Ekstrak Etanol Daun Gatal (*Urticastrum decumanum* (Roxb.) Kuntze) Terhadap Pertumbuhan *Staphylococcus aureus* dan *Candida albicans*. *Sainstech Farma: Jurnal Ilmu Kefarmasian*, 15(2), 93–102. <https://doi.org/https://doi.org/10.37277/sfj.v15i2.1272>
- Yockteng, R., Almeida, A. M. R., Yee, S., Andre, T., Hill, C., & Specht, C. D. (2013). A Method for Extracting High-Quality RNA from Diverse Plants for Next-Generation Sequencing and Gene Expression Analyses. *Applications in Plant Sciences*, 1(12), 1300070. <https://doi.org/10.3732/apps.1300070>