

References

- Ahmed, N. S., Foote, J. B., & Singh, K. K. (2022). Impaired Mitochondria Promote Aging-Associated Sebaceous Gland Dysfunction and Pathology. *The American Journal of Pathology*, 192(11), 1546–1558. <https://doi.org/10.1016/j.ajpath.2022.07.006>
- Allam, M. F. (2016). Breast Cancer and Deodorants/Antiperspirants: a Systematic Review. *Central European Journal of Public Health*, 24(3), 245–247. <https://doi.org/10.21101/cejph.a4475>
- Alshareef, F. (2021). Protocol to Evaluate Antibacterial Activity MIC, FIC, and Time Kill Method. *Acta Scientific Microbiology*, 4(5), 02–06. <https://doi.org/10.31080/asmi.2021.04.0825>
- Ariestini, T., Aden, C., & Magdalena, M. (2023). *Tumeric Drink Reduces Body Odor during Menstruation*. <http://repo.polkesraya.ac.id/2811/1/9.pdf>
- ASTM International. (2009). *Standard Guide for Sensory Evaluation of Axillary Deodorancy*. https://tajhizkala.ir/doc/ASTM/ASTM%20E1207__09.pdf
- Balouiri, M., Sadiki, M., & Ibensouda, S. K. (2016). Methods for In Vitro Evaluating Antimicrobial Activity: A Review. *Journal of Pharmaceutical Analysis*, 6(2), 71–79. <https://doi.org/10.1016/j.jpha.2015.11.005>
- Bawdon, D., Cox, D. S., Ashford, D., James, A. G., & Thomas, G. H. (2015). Identification of Axillary *Staphylococcus* sp. Involved in the Production of the Malodorous Thioalcohol 3-Methyl-3-Sulfanylhexas-1-ol. *FEMS Microbiology Letters*, 362(16), fnv111. <https://doi.org/10.1093/femsle/fnv111>
- Bayot, M. L., & Bragg, B. N. (2022). *Antimicrobial Susceptibility Testing*. National Library of Medicine; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK539714/>
- Beal, J., Farny, N. G., Haddock-Angelli, T., Selvarajah, V., Baldwin, G. S., Buckley-Taylor, R., Gershtater, M., Kiga, D., Marken, J., Sanchania, V., Sison, A., & Workman, C. T. (2020). Robust Estimation of Bacterial Cell Count from Optical Density. *Communications Biology*, 3(1), 1–29. <https://doi.org/10.1038/s42003-020-01127-5>

- Behera, B., Anil Vishnu, G. K., Chatterjee, S., Sitaramgupta, V. S. N., Sreekumar, N., Nagabhushan, A., Rajendran, N., Prathik, B. H., & Pandya, H. J. (2019). Emerging Technologies for Antibiotic Susceptibility Testing. *Biosensors and Bioelectronics*, 142, 111552. <https://doi.org/10.1016/j.bios.2019.111552>
- Benohanian, A. (2001). Antiperspirants and Deodorants. *Clinics in Dermatology*, 19(4), 398–405. [https://doi.org/10.1016/s0738-081x\(01\)00192-4](https://doi.org/10.1016/s0738-081x(01)00192-4)
- Benony, M., Cardon, M., Ferré, A., Coquet, J., Foulquier, N., Thonier, F., Lann, L. L., de Belly, H., Evans, A., Jain, A., Manuel, J., Bland, J., Marcus, I., Lindner, A. B., & Wintermute, E. H. (2016). The Smell of Us – Crowdsourcing Human Body Odor Evaluation. *Human Computation*, 3(1), 161–179. <https://doi.org/10.15346/hc.v3i1.9>
- Bertrand, R. L. (2019). Lag Phase Is a Dynamic, Organized, Adaptive, and Evolvable Period That Prepares Bacteria for Cell Division. *Journal of Bacteriology*, 201(7). <https://doi.org/10.1128/jb.00697-18>
- Bollenbach, T., Quan, S., Chait, R., & Kishony, R. (2009). Nonoptimal Microbial Response to Antibiotics Underlies Suppressive Drug Interactions. *Cell*, 139(4), 707–718. <https://doi.org/10.1016/j.cell.2009.10.025>
- Callewaert, C., Hutapea, P., Van de Wiele, T., & Boon, N. (2014). Deodorants and Antiperspirants Affect the Axillary Bacterial Community. *Archives of Dermatological Research*, 306(8), 701–710. <https://doi.org/10.1007/s00403-014-1487-1>
- Callewaert, C., Kerckhof, F.-M., Granitsiotis, M. S., Van Gele, M., Van de Wiele, T., & Boon, N. (2013). Characterization of Staphylococcus and Corynebacterium Clusters in the Human Axillary Region. *PLoS ONE*, 8(8), e70538. <https://doi.org/10.1371/journal.pone.0070538>
- Callewaert, C., Lambert, J., & Van de Wiele, T. (2017). Towards a Bacterial Treatment for Armpit Malodour. *Experimental Dermatology*, 26(5), 388–391. <https://doi.org/10.1111/exd.13259>
- Chatterjee, I., Herrmann, M., Proctor, R. A., Peters, G., & Kahl, B. C. (2007). Enhanced Post-Stationary-Phase Survival of a Clinical Thymidine-Dependent Small-Colony Variant of

- Staphylococcus aureus* Results from Lack of a Functional Tricarboxylic Acid Cycle. *Journal of Bacteriology*, 189(7), 2936–2940. <https://doi.org/10.1128/jb.01444-06>
- Chuanchien, R. (2020). *Evaluating Quality of Microbiological Culture Media*. Faculty of Veterinary Science Chulalongkorn University. http://www.cuvtamr.vet.chula.ac.th/media/content/file/2021/04/CONTENT_FILE_36_20210421084920.pdf
- Croijmans, I., Beetsma, D., Aarts, H., Gortemaker, I., & Smeets, M. (2021). The Role of Fragrance and Self-Esteem in Perception of Body Odors and Impressions of Others. *PLoS ONE*, 16(11), e0258773. <https://doi.org/10.1371/journal.pone.0258773>
- Cui, C.-Y., & Schlessinger, D. (2015). Eccrine Sweat Gland Development and Sweat Secretion. *Experimental Dermatology*, 24(9), 644–650. <https://doi.org/10.1111/exd.12773>
- Datta, A. (2021). Determination of Viable Microbial Count Present in Tap Water. *International Journal of Innovative Science and Research Technology*, 6(4). <https://doi.org/10.1520/STP36000S>
- De Pilli, T., Alessandrino, O., & Baiano, A. (2024). Quantitative Descriptive Analysis as a Strategic Tool in Research Activities Relating to Innovative Meat Tenderisation Technologies. *Heliyon*, 10(11), e32618–e32618. <https://doi.org/10.1016/j.heliyon.2024.e32618>
- Di Cicco, F., Evans, R. L., James, A. G., Weddell, I., Chopra, A., & Smeets, M. A. M. (2023). Intrinsic and Extrinsic Factors Affecting Axillary Odor Variation. A Comprehensive Review. *Physiology & Behavior*, 270, 114307. <https://doi.org/10.1016/j.physbeh.2023.114307>
- Elbing, K. L., & Brent, R. (2018). Growth of *E. coli* in Liquid Medium. *Current Protocols in Molecular Biology*, 125(1), e81. <https://doi.org/10.1002/cpmb.81>
- Fakir, F., Karim, M. M., Jone, Sarwar, A. G., & Ashrafuzzaman, M. (2025). Variation of Secondary Metabolites, Chlorophyll Contents, and Antioxidant Activity in Six Medicinally Important Plants in Bangladesh. *Turkish Journal of Agriculture - Food Science and Technology*, 13(2), 244–252. <https://doi.org/10.24925/turjaf.v13i2.244-252.6537>

- Faucheux, E., Picard, C., Grisel, M., & Savary, G. (2020). Residual Film Formation After Emulsion Application: Understanding the Role and Fate of Excipients on Skin Surface. *International Journal of Pharmaceutics*, 585, 119453. <https://doi.org/10.1016/j.ijpharm.2020.119453>
- Febriani, T. A. (2013). *Uji Sensitivitas Antibiotika Terhadap Bakteri Penyebab Diare di Puskesmas Mangasa Kota Makassar*. UIN Alauddin Makassar. <https://repositori.uin-alauddin.ac.id/3174/1/try%20ardita%20febriani.pdf>
- Fialová, J., Roberts, S. C., & Havlíček, J. (2016). Consumption of Garlic Positively Affects Hedonic Perception of Axillary Body Odour. *Appetite*, 97, 8–15. <https://doi.org/10.1016/j.appet.2015.11.001>
- Fried, N. (2022). *What Conditions Encourage Bacteria to Grow?* www.fdac.gov. <https://www.fdac.gov/Consumer-Resources/Health-and-Safety/Food-Safety-FAQ/What-conditions-encourage-bacteria-to-grow>
- Friedman, A., Blecher, K., Sanchez, D., Tuckman-Vernon, C., Gialanella, P., Friedman, J. M., Martinez, L. R., & Nosanchuk, J. D. (2011). Susceptibility of Gram-Positive and -Negative Bacteria to Novel Nitric Oxide-Releasing Nanoparticle Technology. *Virulence*, 2(3), 217–221. <https://doi.org/10.4161/viru.2.3.16161>
- Gagnon, D., & Crandall, C. G. (2018). Sweating as a Heat Loss Thermoeffector. *Handbook of Clinical Neurology*, 156(1), 211–232. <https://doi.org/10.1016/B978-0-444-63912-7.00013-8>
- Goldman, E., & Green, L. H. (2015). *Practical Handbook of Microbiology*. CRC Press. <https://doi.org/10.1201/b17871>
- Goldsmith, L., Katz, S., Gilchrest, B., Paller, A., Leffell, D., & Wolff, K. (2012). *Fitzpatrick's Dermatology in General Medicine, Eighth Edition, 2 Volume set*. McGraw Hill Professional.
- Gonzalez, J. M., & Aranda, B. (2023). Microbial Growth under Limiting Conditions-Future Perspectives. *Microorganisms*, 11(7), 1641. <https://doi.org/10.3390/microorganisms11071641>
- Gordon, A., & Alsayouri, K. (2022). *Anatomy, Shoulder and Upper Limb, Axilla*. PubMed; StatPearls Publishing. <https://pubmed.ncbi.nlm.nih.gov/31613503/>

- Graham, J. O., Agbenorhevi, J. K., & Kpodo, F. M. (2017). Total Phenol Content and Antioxidant Activity of Okra Seeds from Different Genotypes. *American Journal of Food and Nutrition*, 5(3), 90–94.
<https://doi.org/10.12691/ajfn-5-3-2>
- Gupta, A., Stead, T. S., & Ganti, L. (2024). Determining a Meaningful R-squared Value in Clinical Medicine. *Academic Medicine & Surgery*. <https://doi.org/10.62186/001c.125154>
- Gupta, M., Torrico, D. D., Hepworth, G., Gras, S. L., Ong, L., Cottrell, J. J., & Dunshea, F. R. (2021). Differences in Hedonic Responses, Facial Expressions and Self-Reported Emotions of Consumers Using Commercial Yogurts: A Cross-Cultural Study. *Foods*, 10(6), 1237.
<https://doi.org/10.3390/foods10061237>
- Hamilton, D. F., Ghert, M., & Simpson, A. H. R. W. (2015). Interpreting Regression Models in Clinical Outcome Studies. *Bone & Joint Research*, 4(9), 152–153.
<https://doi.org/10.1302/2046-3758.49.2000571>
- Handayani, R. P., Pusmarani, J., & Halid, N. H. A. (2022). Formulasi dan Uji Aktivitas Sediaan Deodoran Spray Ekstrak Daun Beluntas (*Pluchea indica*) Terhadap Bakteri *Staphylococcus epidermidis*. *Jurnal Pharmacia Mandala Waluya*, 1(1), 7–12. <https://doi.org/10.54883/jpmw.v1i1.7>
- Haque, M. A., Imamura, R., Brown, G. A., Krishnamurthi, V. R., Niyonshuti, I. I., Marcelle, T., Mathurin, L. E., Chen, J., & Wang, Y. (2017). An Experiment-Based Model Quantifying Antimicrobial Activity of Silver Nanoparticles on *Escherichia coli*. *RSC Advances*, 7(89), 56173–56182.
<https://doi.org/10.1039/C7RA10495B>
- Hardiana, T. O., Hidayati, R. N., Anggoro, W., Muhamad, H. A., & Irawati, N. (2019). Detection of Water Turbidity Using LDR Sensor. *Third International Seminar on Photonics, Optics, and Its Applications*. <https://doi.org/10.1117/12.2504923>
- Harker, M. (2013). Psychological Sweating: A Systematic Review Focused on Aetiology and Cutaneous Response. *Skin Pharmacology and Physiology*, 26(2), 92–100.
<https://doi.org/10.1159/000346930>

- Harker, M., Carvell, A.-M., Marti, V. P. J., Riazanskaia, S., Kelso, H., Taylor, D., Grimshaw, S., Arnold, D. S., Zillmer, R., Shaw, J., Kirk, J. M., Alcasid, Z. M., Gonzales-Tanon, S., Chan, G. P., Rosing, E. A. E., & Smith, A. M. (2014). Functional Characterisation of a SNP in the ABCC11 Allele—Effects on Axillary Skin Metabolism, Odour Generation, and Associated Behaviours. *Journal of Dermatological Science*, 73(1), 23–30. <https://doi.org/10.1016/j.jdermsci.2013.08.016>
- Harwood, A., Nassereddin, A., & Krishnamurthy, K. (2024). *Moisturizers*. PubMed; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK545171/>
- Hassan, Z. A., Schattner, P., & Mazza, D. (2006). Doing A Pilot Study: Why Is It Essential? *Malaysian Family Physician: The Official Journal of the Academy of Family Physicians of Malaysia*, 1(2-3), 70–73. <https://pmc.ncbi.nlm.nih.gov/articles/PMC4453116/>
- Havlicek, J., & Lenochova, P. (2006). The Effect of Meat Consumption on Body Odor Attractiveness. *Chemical Senses*, 31(8), 747–752. <https://doi.org/10.1093/chemse/bjl017>
- Havlíček, J., Fialová, J., & Roberts, S. C. (2017). Individual Variation in Body Odor. *Springer EBooks*, 125–126. https://doi.org/10.1007/978-3-319-26932-0_50
- Herigstad, B., Hamilton, M., & Heersink, J. (2001). How to Optimize the Drop Plate Method for Enumerating Bacteria. *Journal of Microbiological Methods*, 44(2), 121–129. [https://doi.org/10.1016/s0167-7012\(00\)00241-4](https://doi.org/10.1016/s0167-7012(00)00241-4)
- Herman, R., Kinniment-Williams, B., Rudden, M., James, A. G., Wilkinson, A. J., Murphy, B., & Thomas, G. H. (2024). Identification of a Staphylococcal Dipeptidase Involved in the Production of Human Body Odor. *Journal of Biological Chemistry*, 300(12), 107928. <https://doi.org/10.1016/j.jbc.2024.107928>
- Hernandez, H. (2021). *Testing for Normality: What is the Best Method?* ForsChem Research. <https://doi.org/10.13140/RG.2.2.13926.14406>
- Hilgard, J. (2021). Maximal Positive Controls: A Method for Estimating the Largest Plausible Effect Size. *Journal of Experimental Social Psychology*, 93, 104082. <https://doi.org/10.1016/j.jesp.2020.104082>

- Hoover, D. G., & Harlander, S. K. (1993). Screening Methods for Detecting Bacteriocin Activity. *Elsevier EBooks*, 23–39. <https://doi.org/10.1016/b978-0-12-355510-6.50010-5>
- Hudzicki, J. (2009). *Kirby-Bauer Disk Diffusion Susceptibility Test Protocol*. American Society for Microbiology.
- Israyilova, A., Shoaib, M., Ganbarov, K., Huseynzada, A., Hajiyeva, S. R., & Ismiyev, A. I. (2022). Antimicrobial Activity and Time Kill Curve Study of Newly Synthesized Dialkyl Carboxylate Cyclohexane Derivative: A Novel Anti-Pseudomonas aeruginosa Compound. *Acta Scientiarum-Technology*, 44, e58868–e58868. <https://doi.org/10.4025/actascitechnol.v44i1.58868>
- James, A. G. (2020). The Axillary Microbiome and its Relationship with Underarm Odor. *Skin Microbiome Handbook*, 79–129. <https://doi.org/10.1002/9781119593058.ch5>
- James, A. G., Casey, J., Hyliands, D., & Mycock, G. (2004). Fatty Acid Metabolism by Cutaneous Bacteria and Its Role in Axillary Malodour. *World Journal of Microbiology & Biotechnology*, 20(8), 787–793. <https://doi.org/10.1007/s11274-004-5843-8>
- Jorgensen, J. H., & Turnidge, J. D. (2015). Susceptibility Test Methods: Dilution and Disk Diffusion Methods. *Manual of Clinical Microbiology*, 1253–1273. <https://doi.org/10.1128/9781555817381.ch71>
- Kemp, S. E., Hollowood, T., & Hort, J. (2009). *Sensory Evaluation: A Practical Handbook*. John Wiley & Sons, Ltd.
- Kim, M.-J., Tagele, S. B., Jo, H., Kim, M.-C., Jung, Y., Park, Y.-J., So, J.-H., Kim, H. J., Kim, H. J., Lee, D.-G., Kang, S., & Shin, J.-H. (2021). Effect of a Bioconverted Product of Lotus Corniculatus Seed on the Axillary Microbiome and Body Odor. *Scientific Reports*, 11(1), 10138. <https://doi.org/10.1038/s41598-021-89606-5>
- Koeth, L. M. (2023). Tests to Assess Bactericidal Activity. *ClinMicroNow*, 1–35. <https://doi.org/10.1002/9781683670438.cmph0075>

- Koidis, A., Triantafillou, E., & Boskou, D. (2008). Endogenous Microflora in Turbid Virgin Olive Oils and the Physicochemical Characteristics of These Oils. *European Journal of Lipid Science and Technology*, 110(2), 164–171. <https://doi.org/10.1002/ejlt.200700055>
- Kolter, R., Siegele, D. A., & Tormo, A. (1993). The Stationary Phase of The Bacterial Life Cycle. *Annual Review of Microbiology*, 47(1), 855–874. <https://doi.org/10.1146/annurev.mi.47.100193.004231>
- Kumakura, D., Yamaguchi, R., Hara, A., & Nakaoka, S. (2023). Disentangling the Growth Curve of Microbial Culture. *Journal of Theoretical Biology*, 573, 111597–111597. <https://doi.org/10.1016/j.jtbi.2023.111597>
- Kumar, S. R., Mohan, V., Srilekha, K., Ryaz, S., Koteshwara, K. B., Tippavajhala, V. K., & Kumar, L. (2020). Diffusion Studies of Diclofenac Sodium Topical Gel Using Different Synthetic Membranes. *Research Journal of Pharmacy and Technology*, 13(7), 3098–3098. <https://doi.org/10.5958/0974-360x.2020.00549.1>
- Kumowal, S., Fatimawali, F., & Jayanto, I. (2019). Uji Aktivitas Antibakteri Nanopartikel Ekstrak Lengkuas Putih (*Alpinia galanga* (L.) Willd) Terhadap Bakteri *Klebsiella pneumoniae*. *PHARMACON*, 8(4), 781. <https://doi.org/10.35799/pha.8.2019.29354>
- Kuti, T., Hegyi, A., & Kemény, S. (2004). Analysis of Sensory Data of Different Food Products by ANOVA. *Chemometrics and Intelligent Laboratory Systems*, 72(2), 253–257. <https://doi.org/10.1016/j.chemolab.2004.01.020>
- Kyriacou, H., & Khan, Y. S. (2020). *Anatomy, Shoulder and Upper Limb, Axillary Lymph Nodes*. PubMed; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK559188/>
- Lanzalaco, A., Vanoosthuyze, K., Stark, C., Swaile, D., Rocchetta, H., & Spruell, R. (2015). A Comparative Clinical Study of Different Hair Removal Procedures and Their Impact on Axillary Odor Reduction in Men. *Journal of Cosmetic Dermatology*, 15(1), 58–65. <https://doi.org/10.1111/jocd.12197>

- Leber, A. L., & Burnham, C.-A. D. (2016). *Clinical Microbiology Procedures Handbook*. American Society for Microbiology. <https://lib.ui.ac.id/detail?id=20468986&lokasi=lokal>
- Lenochova, P., Roberts, S. C., & Havlicek, J. (2008). Methods of Human Body Odor Sampling: The Effect of Freezing. *Chemical Senses*, 34(2), 127–138. <https://doi.org/10.1093/chemse/bjn067>
- Lenochová, P., Vohnoutová, P., Roberts, S. C., Oberzaucher, E., Grammer, K., & Havlíček, J. (2012). Psychology of Fragrance Use: Perception of Individual Odor and Perfume Blends Reveals a Mechanism for Idiosyncratic Effects on Fragrance Choice. *PLoS ONE*, 7(3), e33810. <https://doi.org/10.1371/journal.pone.0033810>
- Li, M., Budding, A. E., van der Lugt-Degen, M., Du-Thumm, L., Vandeven, M., & Fan, A. (2019). The influence of age, gender and race/ethnicity on the composition of the human axillary microbiome. *International Journal of Cosmetic Science*, 41(4). <https://doi.org/10.1111/ics.12549>
- Li, Z., Bai, X., Peng, T., Yi, X., Luo, L., Yang, J., Liu, J., Wang, Y., He, T., Wang, X., Zhu, H., Wang, H., Tao, K., Zheng, Z., Su, L., & Hu, D. (2020). New Insights Into the Skin Microbial Communities and Skin Aging. *Frontiers in Microbiology*, 11. <https://doi.org/10.3389/fmicb.2020.565549>
- Lipsitch, M., Tchetgen, E. T., & Cohen, T. (2010). Negative Controls: A Tool for Detecting Confounding and Bias in Observational Studies. *Epidemiology (Cambridge, Mass.)*, 21(3), 383–388. <https://doi.org/10.1097/EDE.0b013e3181d61eeb>
- Liu, A., Garrett, S., Hong, W., & Zhang, J. (2024). Staphylococcus aureus Infections and Human Intestinal Microbiota. *Pathogens*, 13(4), 276. <https://doi.org/10.3390/pathogens13040276>
- Low, P. A. (2011). Sweating. *Elsevier EBooks*, 249–251. <https://doi.org/10.1016/b978-0-12-386525-0.00051-2>
- Lundström, J. N., & Olsson, M. J. (2010). Functional Neuronal Processing of Human Body Odors. *Vitamins and Hormones*, 83, 1–23. [https://doi.org/10.1016/S0083-6729\(10\)83001-8](https://doi.org/10.1016/S0083-6729(10)83001-8)
- Macchione, M., Yoshizaki, K., Frias, D. P., Maier, K., Smelan, J., Prado, C. M., & Mauad, T. (2024). Fragrances as a Trigger of Immune Responses in Different Environments. *Toxicology in Vitro*:

- An International Journal Published in Association with BIBRA*, 96, 105769.
<https://doi.org/10.1016/j.tiv.2023.105769>
- Maimunah, S., Rayhana, R., & Silalahi, Y. C. E. (2020). Antibacterial Activity Extract of Leaves of Kaffir Lime (*Citrus hystrix* DC) Againsts of *Staphylococcus aureus* Bacteria. *Jurnal Pembelajaran Dan Biologi Nukleus*, 6(2), 129–138. <https://doi.org/10.36987/jpbn.v6i2.1767>
- Marques, C., Correia, E., Dinis, L. T., Mota, J., & Vilela, A. (2022). Quantitative Descriptive Analysis as an Analytical Tool for the Sensory Characterization of Wine Vinegar. *Web Conference on Food Choice & Eating Motivation*.
https://www.researchgate.net/publication/360938908_Quantitative_descriptive_analysis_as_an_analytical_tool_for_the_sensory_characterization_of_Wine_Vinegar
- Martin, A., Saathoff, M., Kuhn, F., Max, H., Terstegen, L., & Natsch, A. (2010). A Functional ABCC11 Allele Is Essential in the Biochemical Formation of Human Axillary Odor. *The Journal of Investigative Dermatology*, 130(2), 529–540. <https://doi.org/10.1038/jid.2009.254>
- Masuo, Y., Satou, T., Takemoto, H., & Koike, K. (2021). Smell and Stress Response in the Brain: Review of the Connection between Chemistry and Neuropharmacology. *Molecules*, 26(9), 2571. <https://doi.org/10.3390/molecules26092571>
- Mayer, S., Hazenkamp, M., Kluttig, M., & Ochs, D. (2021). Inhibition of Microbial Production of the Malodorous Substance Isovaleric Acid by 4,4'-Dichloro-2-Hydroxydiphenyl Ether (DCPP). *MicrobiologyOpen*, 10(2). <https://doi.org/10.1002/mbo3.1174>
- Miles, A. A., Misra, S. S., & Irwin, J. O. (1938). The Estimation of the Bactericidal Power of the Blood. *Epidemiology and Infection*, 38(6), 732–749. <https://doi.org/10.1017/s002217240001158x>
- Mitro, S., Gordon, A. R., Olsson, M. J., & Lundström, J. N. (2012). The Smell of Age: Perception and Discrimination of Body Odors of Different Ages. *PLoS ONE*, 7(5), e38110. <https://doi.org/10.1371/journal.pone.0038110>
- Moery, E., & Calin-Jageman, R. J. (2016). Direct and Conceptual Replications of Eskine (2013): Organic Food Exposure Has Little to No Effect on Moral Judgments and Prosocial Behavior. *Social*

- Psychological and Personality Science*, 7(4), 312–319.
<https://doi.org/10.1177/1948550616639649>
- Moniruzzaman, M. (2018). *Bacterial Calibration Curve Using OD and CFU/mL*. ResearchGate.
https://www.researchgate.net/publication/323018164_Bacterial_calibration_curve_using_OD_and_CFUml
- Morrish, C., & Kasapis, S. (2024). Diffusive Transport Phenomena of Lactoferrin From Gelatin Gels Crosslinked With Genipin. *Food Hydrocolloids*, 146, 109203.
<https://doi.org/10.1016/j.foodhyd.2023.109203>
- Mutic, S., Moellers, E. M., Wiesmann, M., & Freiherr, J. (2016). Chemosensory Communication of Gender Information: Masculinity Bias in Body Odor Perception and Femininity Bias Introduced by Chemosignals During Social Perception. *Frontiers in Psychology*, 6.
<https://doi.org/10.3389/fpsyg.2015.01980>
- Myers, J. A., Curtis, B. S., & Curtis, W. R. (2013). Improving Accuracy of Cell and Chromophore Concentration Measurements Using Optical Density. *BMC Biophysics*, 6(1), 4.
<https://doi.org/10.1186/2046-1682-6-4>
- Northwestern Medicine Staff. (2024). *Body Odor: A Window to Your Health*. Northwestern Medicine.
<https://www.nm.org/healthbeat/healthy-tips/body-odor-a-window-to-your-health>
- Nurhaini, R., Arrosyid, M., & Putri, H. (2022). Formulasi dan Uji Aktivitas Antibakteri Deodoran Krim dengan Variasi Minyak Atsiri Bunga Kenanga (*Cananga odorata* var. *macrophylla*) sebagai Penghilang Bau Badan. *Cerata Jurnal Ilmu Farmasi*, 13(1), 26–30.
<https://doi.org/10.61902/cerata.v13i1.453>
- Opi, K., Dhinsa, K., Tripathi, A. M., & Saha, S. (2023). To Evaluate and Compare the Antimicrobial Efficacy of Various Disinfecting Agents on K-file against Gram-positive and Gram-negative Bacteria of Endodontic Origin: An In Vitro Study. *International Journal of Clinical Pediatric Dentistry*, 16(Suppl 2), 161–167. <https://doi.org/10.5005/jp-journals-10005-2646>

- Osilla, E. V., Marsidi, J. L., Shumway, K. R., & Sharma, S. (2023). *Physiology, temperature regulation*. National Library of Medicine; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK507838/>
- Patel, V. R., Dumancas, G. G., Viswanath, L. C. K., Maples, R., & Subong, B. J. J. (2016). Castor Oil: Properties, Uses, and Optimization of Processing Parameters in Commercial Production. *Lipid Insights*, 9, LPI.S40233. <https://doi.org/10.4137/lpi.s40233>
- Paulo, J., Lasmar, O., Magri, A., & Alves, G. S. (2016). Evaporation Time of Droplets Containing Thiamethoxam and Adjuvants Sprayed on Sugarcane Leaves. *Pesquisa Agropecuária Tropical*, 46(1), 1–8. <https://doi.org/10.1590/1983-40632016v4638499>
- Penn, D. J., Oberzaucher, E., Grammer, K., Fischer, G., Soini, H. A., Wiesler, D., Novotny, M. V., Dixon, S. J., Xu, Y., & Brereton, R. G. (2006). Individual and Gender Fingerprints in Human Body Odour. *Journal of the Royal Society Interface*, 4(13), 331–340. <https://doi.org/10.1098/rsif.2006.0182>
- Piérard, G. E., Elsner, P., Marks, R., Masson, P., & Paye, M. (2003). EEMCO Guidance for the Efficacy Assessment of Antiperspirants and Deodorants. *Skin Pharmacology and Physiology*, 16(5), 324–342. <https://doi.org/10.1159/000072072>
- Pletnev, P., Osterman, I., Sergiev, P., Bogdanov, A., & Dontsova, O. (2015). Survival Guide: Escherichia coli in the Stationary Phase. *Acta Naturae*, 7(4), 22–33. <https://pubmed.ncbi.nlm.nih.gov/26798489/>
- Pradhan, A. K., & Karanth, S. (2023). Zoonoses From Animal Meat and Milk. *Elsevier EBooks*, 394–411. <https://doi.org/10.1016/b978-0-12-819470-6.00029-9>
- Qiu, Y., Zhou, Y., Chang, Y., Liang, X., Zhang, H., Lin, X., Qing, K., Zhou, X., & Luo, Z. (2022). The Effects of Ventilation, Humidity, and Temperature on Bacterial Growth and Bacterial Genera Distribution. *International Journal of Environmental Research and Public Health*, 19(22), 15345. <https://doi.org/10.3390/ijerph192215345>
- Ramdani, K., Mulqie, L., & Topik Maulana, I. (2020). Eksplorasi Beberapa Tanaman yang Memiliki Aktivitas Antibakteri terhadap Staphylococcus Epidermidis Penyebab Bau Badan. *Prosiding*

<https://karyailmiah.unisba.ac.id/index.php/farmasi/article/view/23922/pdf>

- Rimkute, J., Moraes, C., & Ferreira, C. (2015). The Effects of Scent on Consumer Behaviour. *International Journal of Consumer Studies*, 40(1), 24–34. <https://doi.org/10.1111/ijcs.12206>
- Rivera, A., Viñado, B., Benito, N., Docobo-Pérez, F., Fernández-Cuenca, F., Fernández-Domínguez, J., Guinea, J., López-Navas, A., Moreno, M. Á., Larrosa, M. N., Oliver, A., & Navarro, F. (2023). Recommendations of the Spanish Antibiogram Committee (COESANT) for in vitro susceptibility testing of antimicrobial agents by disk diffusion. *Enfermedades Infecciosas Y Microbiología Clínica*, 41(9), 571–576. <https://doi.org/10.1016/j.eimce.2022.12.009>
- Rohim, R. A. A., Ahmad, W. M. A. W., Ismail, N. H., Ghazali, F. M. M., & Alam, M. K. (2020). Modeling the Growth of Bacteria *Streptococcus sobrinus* Using Exponential Regression. *Pesquisa Brasileira Em Odontopediatria E Clínica Integrada*, 20. <https://doi.org/10.1590/pboci.2020.108>
- Ruiz-Capillas, C., & Herrero, A. M. (2021). Sensory Analysis and Consumer Research in New Product Development. *Foods*, 10(3), 582. <https://doi.org/10.3390/foods10030582>
- Russell, A. D. (2004). Factors Influencing the Efficacy of Antimicrobial Agents. *Russell, Hugo & Ayliffe's Principles and Practice of Disinfection, Preservation & Sterilization*, 98–127. <https://doi.org/10.1002/9780470755884.ch3>
- Sabrina, G., Nurazmi, A., Saputra, W. P., Nasrulloh, Y., Mawarti, S., & Fitriani, D. (2022). Deodorant Sensi, Sebagai Inovasi Deodorant Parfume Spray Batang Serai dan Kulit Jeruk Kalamansi untuk Sumber Usaha yang Menjanjikan. *Sibatik Journal*, 1(11), 2331–2336. <https://doi.org/10.54443/sibatik.v1i11.342>
- Salvatico, S., Feuillolay, C., Jabbour, V., Gouhier-Kodas, C., & Roques, C. (2018). Representativeness of EN 1040/13727 Assay Conditions for Evaluating *In Vitro* the Bactericidal Activity of a Chlorhexidine Digluconate and Benzalkonium Chloride Antiseptic Preparation. *Open Journal of Medical Microbiology*, 08(03), 56–73. <https://doi.org/10.4236/ojmm.2018.83006>

- Seet, M. S., Amin, Md. R., Abbasi, N. I., Hamano, J., Chaudhury, A., Bezerianos, A., Faghieh, R. T., Thakor, N. V., & Dragomir, A. (2020). Olfactory-induced Positive Affect and Autonomic Response as a Function of Hedonic and Intensity Attributes of Fragrances. *PubMed*. <https://doi.org/10.1109/embc44109.2020.9176095>
- Sergeant, M. J. T. (2010). Female Perception of Male Body Odor. *Vitamins & Hormones*, 25–45. [https://doi.org/10.1016/s0083-6729\(10\)83002-x](https://doi.org/10.1016/s0083-6729(10)83002-x)
- Setianingrum, P. A. (2025). Pengaruh Basis Krim Tipe A/M dan M/A Dalam Sediaan Krim Ekstrak Etanol Batang Bajakah Tampala. *Action Research Literate*, 9(1). <https://doi.org/10.46799/ar.v9i1.2576>
- Shirasu, M., Nagai, S., Hayashi, R., Ochiai, A., & Touhara, K. (2009). Dimethyl Trisulfide as a Characteristic Odor Associated with Fungating Cancer Wounds. *Bioscience, Biotechnology, and Biochemistry*, 73(9), 2117–2120. <https://doi.org/10.1271/bbb.90229>
- Shirasu, M., & Touhara, K. (2011). The Scent of Disease: Volatile Organic Compounds of the Human Body Related to Disease and Disorder. *Journal of Biochemistry*, 150(3), 257–266. <https://doi.org/10.1093/jb/mvr090>
- Sidel, J. L., Bleibaum, R. N., & Tao, K. W. C. (2018). Quantitative Descriptive Analysis. *Descriptive Analysis in Sensory Evaluation*, 287–318. <https://doi.org/10.1002/9781118991657.ch8>
- Singh, M. (2023). *Understanding Deodorants: A Mini-Review on Potential Indoor Pollutants*. International Journal of Research and Analytical Reviews. <https://doi.org/10.13140/RG.2.2.15591.83365>
- Siregar, S. (2017). *Statistika Terapan Untuk Perguruan Tinggi*. Prenada Media Group.
- Siskawati, Y., Simbolon, I. B. T., & Menaldi, S. L. S. W. (2014). Bau Badan: Patogenesis dan Penatalaksanaan. *Media Dermato Venereologica Indonesiana*, 4(1), 32–41. <https://scholar.ui.ac.id/en/publications/bau-badan-patogenesis-dan-penatalaksanaan>
- Skowron, K., Bauza-Kaszewska, J., Kraszewska, Z., Wiktorczyk-Kapischke, N., Grudlewska-Buda, K., Kwiecińska-Piróg, J., Wałęcka-Zacharska, E., Radtke, L., & Gospodarek-Komkowska, E. (2021).

- Human Skin Microbiome: Impact of Intrinsic and Extrinsic Factors on Skin Microbiota. *Microorganisms*, 9(3), 543. <https://doi.org/10.3390/microorganisms9030543>
- Sorokowska, A., & Oleszkiewicz, A. (2019). Body-Odor Based Assessments of Sex and Personality – Non-Significant Differences Between Blind and Sighted Odor Raters. *Physiology & Behavior*, 210, 112573. <https://doi.org/10.1016/j.physbeh.2019.112573>
- Sorokowska, A., Sorokowski, P., & Havlíček, J. (2016). Body Odor Based Personality Judgments: The Effect of Fragranced Cosmetics. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.00530>
- Steinemann, A. (2016). Fragranced Consumer Products: Exposures and Effects from Emissions. *Air Quality, Atmosphere & Health*, 9(8), 861–866. <https://doi.org/10.1007/s11869-016-0442-z>
- Stevens, B. R., & Luiz. (2024). Interplay of Human ABCC11 Transporter Gene Variants With Axillary Skin Microbiome Functional Genomics. *Scientific Reports*, 14(1). <https://doi.org/10.1038/s41598-024-78711-w>
- Stevenson, K., McVey, A. F., Clark, I. B. N., Swain, P. S., & Pilizota, T. (2016). General Calibration of Microbial Growth in Microplate Readers. *Scientific Reports*, 6(1). <https://doi.org/10.1038/srep38828>
- Stieglmeier, M., Wirth, R., Kminek, G., & Moissl-Eichinger, C. (2009). Cultivation of Anaerobic and Facultatively Anaerobic Bacteria from Spacecraft-Associated Clean Rooms. *Applied and Environmental Microbiology*, 75(11), 3484–3491. <https://doi.org/10.1128/aem.02565-08>
- Tam, V. H., Kabbara, S., Vo, G., Schilling, A. N., & Coyle, E. A. (2006). Comparative Pharmacodynamics of Gentamicin against *Staphylococcus aureus* and *Pseudomonas aeruginosa*. *Antimicrobial Agents and Chemotherapy*, 50(8), 2626–2631. <https://doi.org/10.1128/aac.01165-05>
- Taylor, T. A., & Unakal, C. G. (2023). *Staphylococcus aureus Infection*. National Library of Medicine; StatPearls Publishing. <https://www.ncbi.nlm.nih.gov/books/NBK441868/>

- Teerasumran, P., Velliou, E., Bai, S., & Cai, Q. (2023). Deodorants and Antiperspirants: New Trends in Their Active Agents and Testing Methods. *International Journal of Cosmetic Science*, 45(4). <https://doi.org/10.1111/ics.12852>
- Troccaz, M., Borchard, G., Vuilleumier, C., Raviot-Derrien, S., Niclass, Y., Beccucci, S., & Starkenmann, C. (2009). Gender-Specific Differences Between the Concentrations of Nonvolatile (R)/(S)-3-Methyl-3-Sulfanylhexas-1-ol and (R)/(S)-3-Hydroxy-3-Methyl-Hexanoic Acid Odor Precursors in Axillary Secretions. *Chemical Senses*, 34(3), 203–210. <https://doi.org/10.1093/chemse/bjn076>
- Troccaz, M., Gaïa, N., Beccucci, S., Schrenzel, J., Cayeux, I., Starkenmann, C., & Lazarevic, V. (2015). Mapping Axillary Microbiota Responsible for Body Odours Using a Culture-Independent Approach. *Microbiome*, 3(1), 3. <https://doi.org/10.1186/s40168-014-0064-3>
- Ughy, B., Nagyapati, S., Lajko, D. B., Letoha, T., Prohaszka, A., Deeb, D., Dér, A., Pettko-Szandtner, A., & Szilák, L. (2023). Reconsidering Dogmas about the Growth of Bacterial Populations. *Cells*, 12(10), 1430–1430. <https://doi.org/10.3390/cells12101430>
- Utama, P. W., Jusuf, N. K., Putra, I. B., Ichwan, M., & Kusumawati, R. L. (2024). Identification of Microbiota Causing Bromhidrosis in the Axillary. *Indonesian Journal of Global Health Research*, 7(1), 205–212. <https://doi.org/10.37287/ijghr.v7i1.4194>
- Vadasz, P., & Vadasz, A. S. (2005). Predictive Modeling of Microorganisms: LAG and LIP in Monotonic Growth. *International Journal of Food Microbiology*, 102(3), 257–275. <https://doi.org/10.1016/j.ijfoodmicro.2004.12.018>
- Valentino, M., Cahyadi, S. N., Andini, P., Ferdian, M., Widjaja, T., Fachrudin, B. R., Nabila, A. H., Wandira, S. P., Saputri, S. M., Azzahra, K. S., Kusumaningrum, A. A., Shabrina, C. L. N., & Nurjannah, R. P. (2023). Comparative Test of Effectiveness of Alcohol Mixture–Based Hand Sanitizer With Chlorhexidine Mixture–Based on *Escherichia coli* and *Shigella sonnei* Bacteria. *Journal of Research in Pharmacy and Pharmaceutical Sciences*, 2(1), 17–28. <https://doi.org/10.33533/jrpps.v2i1.7013>

- Wang, L., Fan, D., Chen, W., & Terentjev, E. M. (2015). Bacterial Growth, Detachment, and Cell Size Control on Polyethylene Terephthalate Surfaces. *Scientific Reports*, 5(1).
<https://doi.org/10.1038/srep15159>
- Wheat, P. F. (2001). History and Development of Antimicrobial Susceptibility Testing Methodology. *Journal of Antimicrobial Chemotherapy*, 48(suppl_1), 1–4.
https://doi.org/10.1093/jac/48.suppl_1.1
- Wilke, K., Martin, A., Terstegen, L., & Biel, S. S. (2007). A Short History of Sweat Gland Biology. *International Journal of Cosmetic Science*, 29(3), 169–179.
<https://doi.org/10.1111/j.1467-2494.2007.00387.x>
- Wu, T., Zhu, W., Chen, L., Jin-hua, T., Dong, Y., Wang, L., Tong, X., Zhou, H., Yu, X., Peng, Y., Wang, L., Xiao, Y., & Zhong, T. (2023). A Review of Natural Plant Extracts in Beverages: Extraction Process, Nutritional Function, and Safety Evaluation. *Food Research International*, 172, 113185–113185. <https://doi.org/10.1016/j.foodres.2023.113185>
- 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>
- Yin, D. (2024). Role of Sensory Evaluation in Health and Wellness Food Products. *Flavor-Associated Applications in Health and Wellness Food Products*, 47–69.
https://doi.org/10.1007/978-3-031-51808-9_3
- Yoshiura, K., Kinoshita, A., Ishida, T., Ninokata, A., Ishikawa, T., Kaname, T., Bannai, M., Tokunaga, K., Sonoda, S., Komaki, R., Ihara, M., Saenko, V. A., Alipov, G. K., Sekine, I., Komatsu, K., Takahashi, H., Nakashima, M., Sosonkina, N., Mapendano, C. K., & Ghadami, M. (2006). A SNP in the ABCC11 Gene Is the Determinant of Human Earwax Type. *Nature Genetics*, 38(3), 324–330. <https://doi.org/10.1038/ng1733>

- Zhi, R., Zhao, L., & Shi, J. (2016). Improving the Sensory Quality of Flavored Liquid Milk by Engaging Sensory Analysis and Consumer Preference. *Journal of Dairy Science*, 99(7), 5305–5317.
<https://doi.org/10.3168/jds.2015-10612>
- Zirwas, M. J., & Moennich, J. (2008). Antiperspirant and Deodorant Allergy: Diagnosis and Management. *The Journal of Clinical and Aesthetic Dermatology*, 1(3), 38.
<https://pmc.ncbi.nlm.nih.gov/articles/PMC3013594/>
- Zouboulis, C., Chen, W.-C. ., Thornton, M., Qin, K., & Rosenfield, R. (2007). Sexual Hormones in Human Skin. *Hormone and Metabolic Research*, 39(2), 85–95.
<https://doi.org/10.1055/s-2007-961807>