

Daftar Pustaka

- Abduran, M.I., Shamanna, V., Prasanna, A., Underwood, A., Argimon, S. Nagaraj, G., Gregorio, S.D., Govindan, V., Vasanth, A., Dharmavaram, S., Kekre, M., Aanensen, D.M., Ravikumar, K.L. (2023). Novel multidrug-resistant sublineages of *Staphylococcus aureus* clonal complex 22 discovered in India. *American Society for Microbiology*, 8(5)1-19. <https://doi.org/10.1128/msphere.00185-23>
- Abushaheen, M.A., Muzaaheed, Fatani, A.J., Alosaimi, M., Mansy, W., George, M., Acharya, S., Rathod, S., Divakar, D.D., Jhugroo, C., Vellappally, S., Khan, A.A., Shaik, J., Jhugroo, P. (2020). Antimicrobial resistance, mechanism and its clinical significance. *Disease-a-Month*, 66. <https://doi.org/10.1016/j.disamonth.2020.100971>
- Agour, M.A., Hamed, A.A., Ghareeb, M.A., Abdel-Hamid, E.A.A., Ibrahim, M.K. (2022). Bioactive secondary metabolites from marine Actinomyces sp. AW6 with an evaluation of ADME-related physicochemical properties. *Archives of Microbiology*, 204:537. <https://doi.org/10.1007/s00203-022-0309-5>
- Al-dhabi, N.A., Ghilan, A.K.M., Esmail, G.A., Arasu, M.V., Duraipandiyar, V., Ponmurugan, K. (2019). Environmental friendly synthesis of silver nanomaterials from the promising *Streptomyces parvus* strain Al-Dhabi-91 recovered from the Saudi Arabian marine regions for antimicrobial and antioxidant properties. *Journal of Photochemistry and Photobiology, B: Biology*, 197:111529. <https://doi.org/10.1016/j.jphotobiol.2019.111529>
- Aleid, S.M., Hamad, S.H., Delaunay, S., Fick, M., Olmos, E. (2022). Pristinamycin production using *Streptomyces pristinaespiralis* and date sirup as substrate-process modeling, optimization, and scale-up. *Preparative Biochemistry and Biotechnology*, 52(9):1044-1050. <https://doi.org/10.1080/10826068.2021.2024849>
- Algammal, A.M., Hetta, H.F., Elkelish, A., Alkhalifah, D.H.H., Hozzein, W.N., Batiha, G.E.S., Nahhas, N.E., Mabrok, M.A. (2020). Methicillin-resistant *Staphylococcus aureus* (MRSA): one health perspective approach to the bacterium epidemiology, virulence factors, antibiotic-resistance, and zoonotic impact. *Infection and Drug Resistance*, 13:3255-3265. <https://doi.org/10.2147/idr.s272733>
- Antunes, S., Freitas, F., Sevrin, C., Grandfils, C., Reis, M.A.M. (2017). Production of FucoPol by *Enterobacter* A47 using waste tomato paste by-product as sole carbon source. *Bioresource Technology*, 227:66-73. <http://dx.doi.org/10.1016/j.biortech.2016.12.018>
- Armarego, W.L.F. (2017). Purification of Laboratory Chemicals: Eighth edition. *Butterworth Heinemann*. ISBN 978-0-12-805457-4

- Babobu, D.T., Archana, K., Kachiprath, B., Solomon, S., Jayanath, G., Singh, I.S.B., Philip, R. (2018). Marine actinomycetes as bioremediators in *Penaeus monodon* rearing system. *Fish and Shellfish Immunology*, 75:231-242. <https://doi.org/10.1016/j.fsi.2018.01.037>
- BackDive. (2024). <https://doi.org/10.13145/bacdiv15568.20240916.9.1>
- Bajpai, V.K., Majumder, R., Park, J.G. (2016) Isolation and purification of plant secondary metabolites using column-chromatographic technique. *Bangladesh Journal of Pharmacology*, 11(4). <https://doi.org/10.3329/bjp.v11i4.28185>
- Bayliak, M.M., dan Lushchak, V.I. (2020). Pleiotropic effects of alpha-ketoglutarate as a potential anti-ageing agent. *Ageing Research Review*, 66. <https://doi.org/10.1016/j.arr.2020.101237>
- Bayuo, J., Abukari, M.A., Pelig-Ba, K.B. 2020. Optimization using central composite design (CCD) of response surface methodology (RSM) for biosorption of hexavalent chromium from aqueous media. *Applied Water Science*, 10:135. <https://doi.org/10.1007/s13201-020-01213-3>
- Biswas, S., Biswas, S., Sarkar, U., Mitra, A. (2024). Chapter 11-Insighhts into the challenges and resolutions in the bacterial fermentation process. *In Developments in Applied Microbiology and Biotechnology, Bioactive Microbial Metabolites*. Akademik Press. <https://doi.org/10.1016/B978-0-443-18568-7.00011-2>
- Boradia, V., Frando, A., Grundner, C. (2022) The *Mycobacterium tuberculosis* PE15/PPE20 complex transports calcium across the outer membrane. *PLoS Biology* 20(11): e3001906. <https://doi.org/10.1371/journal.pbio.3001906>
- Bruinsma, L., Wenk, S., Claassens, N.J., Santos, V.A.P.M. (2025). Paving the way for synthetic C1 - Metabolism in *Pseudomonas putida* through the reductive glycine pathway. *Metabolic Engineering*, 76:215-224. <https://doi.org/10.1016/j.ymben.2023.02.004>
- Cassarini, M., Remond, C., Muhle, E., Clermont, D., Besaury, L. (2022). *Streptomyces durocortorensis* sp. nov., isolated from oak rhizosphere. *International Journal of Systematic and Evolutionary Microbiology*, 72(9):1-10. <https://doi.org/10.1099/ijsem.0.005480>
- Cavalcante, M.A., Oliveira, J.S., Barreto, M.S.S., Pinheiro, L.P., Cantuaria, P.C., Borges, W.L., Silva, G.A., Souza, T.M. (2020). An HPLC Method to Determine Phenolic Compounds of Plant Extracts: Application to *Byrsonima crassifolia* and *Senna alata* Leaves. *Pharmacognosy Research*, 11(4): 395-404. <https://doi.org/10.5530/pres.14.4.58>
- Chabi, I.B., Zannou, O., Dedehou, E.S.C.A., Ayegnon, B.P., Odouaro, O.B.O., Maqsood, S., Galanakis, C.M., Kayode, A.P.P. (2024). Tomato pomace as a source of valuable functional ingredients for improving physicochemical

- and sensory properties and extending the shelf life of foods: A review. *Heliyon* 10. <https://doi.org/10.1016/j.heliyon.2024.e25261>
- Cheng, Z., Guo, C., Chen, Z., Yang, T., Zhang, J., Wang, J., Zhu, J., Li, D., Zhang, T., Li, H., Peng, B., Peng, X. (2019). Glycine, serine, and threonine metabolism confounds efficacy of complement-mediated killing. *Nature Communications*, 10:3325. <https://doi.org/10.1038/s41467-019-11129-5>
- Choksket, S., Kaur, M., Pinnaka, A.K., Korpole, S. (2023). An antimicrobial thiopeptide producing novel actinomycetes *Streptomyces terrae* sp. nov., isolated from subsurface soil of arable land. *FEMS Microbes*, 4 (1-11). <https://doi.org/10.1093/femsmc/xtad014>
- Christwardana, M., Khoirunnisa, K., Asy'ari, M., Hadiyanto, H. (2025). Evaluating nitrogen sources for enhanced halophilic bacteria growth, electron transfer, and microbial fuel cell performance. *Chemosphere*. <https://doi.org/10.1016/j.chemosphere.2025.144397>
- Chua, J.Y., Liu, S.Q. (2019). Soy whey: More than just wastewater from tofu and soy protein isolate industry. *Trends in Food Science and Technology*, 91:24-32. <https://doi.org/10.1016/j.tifs.2019.06.016>
- Coimbra, C., Morais, P.V. and Branco, R. (2024). Iron homeostasis as a cell detoxification mechanism in *Mesorhizobium qingshengii* J19 under yttrium exposure. *Front. Microbiol.* <https://doi.org/10.3389/fmicb.2024.1467386>
- Cruz-Baustista R, Ruiz-Villafan B, Romero-Rodriguez A, Rodriguez-Sanoja R, Sanchez S. 2023. Trends in the two-component system's role in the synthesis of antibiotics by *Streptomyces*. *Applied Microbiology and Biotechnology*. <https://doi.org/10.1007/s00253-023-12623-z>.
- Dean, A., Voss, D., Draguljic, D. 2017. Design and Analysis of Experiments, Springer Texts in Statistics. *Springer International Publishing AG*. DOI: 10.1007/978-3-319-52250-0_16
- de-Jesus, S.S., Ferreira, G.F., Maciel, M.R.W., Filho, R.M. 2019. Biodiesel purification by column chromatography and liquid-liquid extraction using green solvents. *Fuel*. <https://doi.org/10.1016/j.fuel.2018.08.107>
- Demishtein, K., Reifen, R., Shemesh, M. (2019). Antimicrobial properties of magnesium open opportunities to develop healthier food. *Nutrients*, 11 (2363). <http://dx.doi.org/10.3390/nu11102363>
- Dhandapani, R., Thangavelu, S., Rangunathan, L., Paramasivam, R., Velmurugan, P., Muthupandian, S. (2022). Potential bioactive compounds from marine *Streptomyces* sp. and their in vitro antibiofilm and antibacterial activities against antimicrobial-resistant clinical pathogens. *Applied Biochemistry and Biotechnology*, 194:4702-4723. <https://doi.org/10.1007/s12010-022-04072-7>

- Dhingra, S., Rahman, N.A.A., Peile, E., Rahman, M., Sartelli, M., Hassali, M.A., Islam, T., Islam, S., Haque, M. (2020). Microbial resistance movements: an overview of global public health threats posed by antimicrobial resistance, and how best to counter. *Frontiers in Public Health*, 8. <https://doi.org/10.3389/fpubh.2020.535668>
- Djinni, I., Defant, A., Djoudi, W., Chaouch, F.C., Souagui, S., Kecha, M., Mancini, I. (2019). Modeling improved production of the chemotherapeutic polypeptide actinomycin D by a novel *Streptomyces* sp. strain from a Saharan soil. *Heliyon*, 5. <https://doi.org/10.1016/j.heliyon.2019.e01695>
- Elegbede, J.A., Ajayi, V.A., Lateef, A. (2021). Microbial valorization of corncob: Novel route for biotechnological products for sustainable bioeconomy. *Environmental Technology and Innovation*, 24. <https://doi.org/10.1016/j.eti.2021.102073>
- Eliodoro, K.P., Pennacchi, C., Cunha, G.C.G., Morandim-Glannetti, A.A., Gludici, R., Basso, T.O. (2023). Effects of caramelization and Maillard reaction products on the physiology of *Saccharomyces cerevisiae*. *Fungal Biology*. <https://doi.org/10.1016/j.funbio.2023.06.009>
- Fasnacht, M. and Polacek, N. (2021) Oxidative Stress in Bacteria and the Central Dogma of Molecular Biology. *Frontiers in Molecular Biosciences* 8. <https://doi.org/10.3389/fmolb.2021.671037>
- Fathana, H., Iqhrammullah, M., Rahmi, R., Alim, M., Lubis, S. (2021). Tofu wastewater-derived amino acids identification using LC-MS/MS and their uses in the modification of chitosan/TiO₂ film composite. *Chemical Data Collections*. <https://doi.org/10.1016/j.cdc.2021.100754>
- Fathy W.A., AbdElgawad H., Essawy E.A., Tawfik E., Abdelhameed M.S., Hammouda O., Korany S.M. and Elsayed K.N.M. (2023), Glycine differentially improved the growth and biochemical composition of *Synechocystis* sp. PAK13 and *Chlorella variabilis* DT025. *Front. Bioeng. Biotechnol.* 11:1161911. <https://doi.org/10.3389/fbioe.2023.1161911>
- Gabelman, A. (2022). Chapter 2 - Fermentation and downstream processing: Part 1. Integration and optimization of unit operations. Elsevier. <https://doi.org/10.1016/B978-0-12-823502-7.00015-3>
- Gattu, R., Ramesh, S. S., Ramesh, S. (2024). Role of small molecules and nanoparticles in effective inhibition of microbial biofilms: A ray of hope in combating microbial resistance. *Microbial Pathogenesis*, 188. <https://doi.org/10.1016/j.micpath.2024.106543>
- Gnanasekaran, C., Govindan, R., Kumar, N.M., Chelliah, C.K., Govindan, R., Ranganathan, P., Muthuchamy, M., Quero, F., Arunachalam, A., Viswanathan, M.R., Alharbi, N.S., Natesan, M. (2023). Isolation and molecular detection of endophytic actinomycetes *Nocardopsis dassonvillei* DMS 1 (MH900216) from marine sea grasses with bacterial inactivation.

Biocatalysis and Agricultural Biotechnology, 54:102938.
<https://doi.org/10.1016/j.bcab.2023.102938>

- Govindarajan, G., Yao, Z., Zhou, Z., Zheng, X., Ma, J., Kumar, P.S., Ju, J., Sun, C. (2023). Genome sequencing of *Streptomyces griceus* SCSIO PteL053 the producer of 2,2'-Bipyridine and actinomycin analogs, and associated biosynthetic gene cluster analysis. *Journal of Marine Science and Engineering*, 11, 396. <https://doi.org/10.3390/jmse11020396>
- Hasanah, U., Rohaeti, E., Batubara, I., Syafitri, U.D., Heryanto, R., Ridwan, T., Yuliana, N.D., Rafi, M. (2026). LC-HRMS- and TLC-based metabolomics for the identification and authentication of *Sida rhombifolia*. *Journal of Chromatography B*. <https://doi.org/10.1016/j.jchromb.2025.124834>
- Hatae, A. C., Roque-Borda, C. A., Pavan, F. R. (2023). Strategies for lipid-based nanocomposites with potential activity against *Mycobacterium tuberculosis*: Microbial resistance challenge and drug delivery trends. *OpenNano*, 13. <https://doi.org/10.1016/j.onano.2023.100171>
- He, H., Li, Y., Zhang, L., Ding, Z., Shi, G. (2023). Understanding and application of *Bacillus* nitrogen regulation: A synthetic biology perspective. *Journal of Advanced Research*, 49:1-14. <https://doi.org/10.1016/j.jare.2022.09.003>
- Hindra dan Elliot, M.A. (2024). Multifactorial genetic control and magnesium levels govern the production of a *Streptomyces* antibiotic with unusual cell density dependence. *American Society for Microbiology*, 9(4):1-20. <https://journals.asm.org/journal/msystems>
- Hussaini, I. M., Oyewole, O. A., Sulaiman, M. A., Dabban, A. I., Sulaiman, A. N., Tarek R. (2024). Microbial anti-biofilm: types and mechanism of action. *Research in Microbiology*, 175. <https://doi.org/10.1016/j.resmic.2023.104111>
- Idrees, M., Sawant, S., Karodia, N., Rahman, A. (2021). *Staphylococcus aureus* biofilm: morphology, genetics, pathogenesis and treatment strategies. *International Journal of Environmental Research and Public Health*, 18. <https://doi.org/10.3390/ijerph18147602>
- Jawarkar, S.G., Amliyar, G., Khan, N., Dhakne, P., Pillai, M., Dey, S., Ajabiya, J., Sengupta, P. (2026). Identification and characterization of trametinib degradation product employing Orbitrap LC-HRMS, and development of a robust, eco friendly stability indicating method of analysis. *Journal of Pharmaceutical and Biomedical Analysis*. <https://doi.org/10.1016/j.jpba.2026.117355>
- Jaworska, K., Senior, J.J., Bruning-Richardson, A., Smith, A.M. (2024). The effect of elevating extracellular CaCl₂: Important considerations for tissue engineering applications. *Tissue and Cell*, 91. <https://doi.org/10.1016/j.tice.2024.102615>

- Jiao, W.H., Yuan, W., Li, Z.Y., Li, J., Li, L., Sun, J.B., Gui, Y.H., Wang, J., Ye, B.P., Lin, H.W. (2018). Anti-MRSA actinomycin D1-D4 from the marine sponge-associated *Streptomyces* sp. LHW52447. *Tetrahedron*, 74: 5914-5919. <https://doi.org/10.1016/j.tet.2018.08.023>
- Kim, J., Yoon, Y.W., Kim, M.S., Lee, M.H., Kim, G.A., Bae, K., Yoon, S.S. (2022). Gamma-aminobutyric acid fermentation in MRS-based medium by the fructophilic *Lactiplantibacillus plantarum* Y7. *Food Science Biotechnology*, 31(3):334-341. <https://doi.org/10.1007/s10068-022-01035-w>
- Kobori, H., Wu, J., Takemura, H., Choi, J.H., Tada, N., Kawagishi H. (2022). Utilization of Fairy Chemicals by *Lepista sordida* Mycelia. *Journal Fungi*, 8. <https://doi.org/10.3390/jof8121269>
- Kolodkin-Gal, I., Parsek, M.R., Patrauchan, M.A. (2023). The roles of calcium signaling and calcium deposition in microbial multicellularity. *Trends in Microbiology*, 31(12). <https://doi.org/10.1016/j.tim.2023.06.005>
- Krysenko, S. (2023). Impact of Nitrogen-Containing Compounds on Secondary Metabolism in *Streptomyces* spp.—A Source of Metabolic Engineering Strategies. *SynBio* 1, 204–225. <https://doi.org/10.3390/synbio1030015>
- Kulkarni, M., Gorthi, S., Banerjee, G., Chattopadhyay, P. (2017). Production, characterization and optimization of actinomycin D from *Streptomyces hydrogens* IB310, an antagonistic bacterium against phytopatogens. *Biocatalysis and Agricultural Biotechnology*, 10:69-74. <https://doi.org/10.1016/j.bcab.2017.02.009>
- Kuo, J., Chen, K.T., Lu, M.C., Sung, P.J., Lin, C.H., Huang, Y.S. (2023). Screening of marine Actinomycetia with bioactive metabolites from nearshore and deep sea marine sediments in southwestern Taiwan. *Biologia*, 78:2551-2562. <https://doi.org/10.1007/s11756-023-01397-4>
- Lee, J.A., Kim, H.U., Na, J.G., Ko, Y.S., Cho, J.S., Lee, S.Y. (2023). Factors affecting the competitiveness of bacterial fermentation. *Trends in Biotechnology*, 41(6): 798-816. <https://doi.org/10.1016/j.tibtech.2022.10.005>
- Lee, J.H., Kim, Y.G., Lee, K., Kim, C.J., Park, D.J., Ju, Y., Lee, J.C., Wood, T.K., Lee, J. (2016). Streptomyces-derived actinomycin D inhibits biofilm formation by *Staphylococcus aureus* and its hemolytic activity. *Biofouling*, 32(1), 45–56. <https://doi.org/10.1080/08927014.2015.1125888>
- Li, C., Yuan, B., Dong, M., Zhou, P., Hao, Y., Sun, Y., Xu, M., Li, D., Kai, G., Jiang, J. (2018). Purification and identification of an actinomycin D analogue from actinomycetes associated with *Ganoderma applanatum* via magnetic molecularly imprinted polymers and tandem mass spectrometry. *Food and Chemical Toxicology*, 119: 150-160. <https://doi.org/10.1016/j.fct.2018.05.015>

- Li, L., Jiang, W., Lu, Y. (2017). A novel two-component system, GluR-GluK, involved in glutamate sensing and uptake in *Streptomyces coelicolor*. *Journal of Bacteriology*, 199(18):1-12. <https://doi.org/10.1128/JB.00097-17>
- Li, S., Tang, D., Zhao, X., Zhu, M., Zhu, X., Duan, Y., Huang, Y. (2024). Identification and application of a strong bidirectional *acmN2p* promoter from actinomycin D-producing streptomycetes. *Engineering Microbiology*, 4(1). <https://doi.org/10.1016/j.engmic.2023.100121>
- Li, Y., Meng, X., Wang, Z., Lin, X., Xu, Y., Mou, J., Zhou, R., Tang, Y., Lin, C.S.K., Li, X. (2024). Utilization of tofu wastewater and *Nannochloropsis oceanica* for eutrophication mitigation and eicosapentaenoic acid valorization: Advancing carbon neutrality and resource recycling. *Chemical Engineering Journal*, 493. <https://doi.org/10.1016/j.cej.2024.152706>
- Liu, Q., Xiao, L., Zhou, Y., Deng, K., Tan, G., Han, Y., Liu, X., Deng, Z., Liu, T. (2016). Development of *Streptomyces* sp. FR-008 as an emerging chassis. *Synthetic and Systems Biotechnology*, 1: 207-214. <http://dx.doi.org/10.1016/j.synbio.2016.07.002>
- Liu, Y. (2024). Chapter 5 - Liquid-liquid extraction, *HiGee Chemical Separation Engineering*, Elsevier. <https://doi.org/10.1016/B978-0-323-95173-9.00003-7>
- Ma, B., Zhang, H., Ma, M., Huang, T., Guo, H., Yang, W., Huang, Y., Liu, X., Li, H. (2022). Nitrogen removal by two strains of aerobic denitrification actinomycetes: Denitrification capacity, carbon source metabolic ability, and raw water treatment. *Bioresour Technol*, 344:126176. <https://doi.org/10.1016/j.biortech.2021.126176>
- Madkour, L. H. (2019). Classifications of DNA binding molecules—Drug interactions. *Nucleic Acids as Gene Anticancer Drug Delivery Therapy*, 87–101. <https://doi.org/10.1016/b978-0-12-819777-6.00007-x>
- Meetiyyagoda, T.A.O.K., Takahashi, T., Fujino, T. (2023). Response surface optimization of chemical coagulation for solid-liquid separation of dairy manure slurry through Box-Behnken design with desirability function. *Heliyon* 9. <https://doi.org/10.1016/j.heliyon.2023.e17632>
- Miller, T., Waturangi, D.E., Yogiara. (2022). Antibiofilm properties of bioactive compounds from Actinomycetes against foodborne and fish pathogens. *Scientific reports*, 12. <https://doi.org/10.1038/s41598-022-23455-8>
- Myers, R. H., Montgomery, D. C., dan Anderson-Cook, C. M. (2016). Response surface methodology: process and product optimization using designed experiments, Fourth edition. *John Wiley & Sons*. ISBN 978-1-118-91601-8.
- Ngamcharungchit, C., Chaimusik, N., Panbangred, W., Euanorasetr, J., Intra, Bungonsiri. (2023). Bioactive metabolites from terrestrial and marine

actinomycetes. *Molecules*, 28:5915.
<https://doi.org/10.3390/molecules28155915>

- Nirwati, H., Damayanti, E., Sholikhah, E.N., Mustofa, M., Widada, J. (2022). Soil-derived *Streptomyces* sp. GMR22 producing antibiofilm activity against *Candida albicans*: bioassay, untargeted LC-HRMS, and gene cluster analysis. *Heliyon*, 8(4). <https://doi.org/10.1016/j.heliyon.2022.e09333>
- Parthasarathy, A., Cross, P.J., Dobson, R.C.J., Adams, L.E., Savka, M.A., Hudson, A.O. (2018). A three-ring circus: Metabolism of the three proteogenic aromatic amino acids and their role in the health of plants and animals. *Frontiers in Molecular Biosciences*, 5(29):1-30. <https://doi.org/10.3389/fmolb.2018.00029>
- Qureshi, K.A., Bholay, A.D., Rai, P.K., Mohammed, H.A., Khan, R.A., Azam, F., Jaremko, M., Emwas, A.H., Stefanowicz, P., Waliczek, M., Kijewska, M., Ragab, E.A., Rehan, M., Elhassan, G.O., Anwar, M.J., Prajapati, D.K. (2021). Isolation, characterization, anti-MRSA evaluation, and in-silico multi-target anti-microbial validations of actinomycin X2 and actinomycin D produced by novel *Streptomyces smyrnaeus* UKAQ_23. *Scientific Reports*, 11. <https://doi.org/10.1038/s41598-021-93285-7>
- Rahbi, F.A., Salmi, I.A., Khamis, F., Balushi, Z.A., Pandak, N., Petersen, E., Hannawi, S. (2023). Physicians' attitudes, Knowledge, and practices regarding antibiotic prescriptions. *Journal of Global Antimicrobial Resistance*, 32:58-65. <https://doi.org/10.1016/j.jgar.2022.12.005>
- Raissa, G., Waturangi, D.E., Wahjuningrum, D. (2020). Screening of antibiofilm and anti-quorum sensing activity of Actinomycetes isolates extracts against aquaculture pathogenic bacteria. *BMC Microbiology*, 20:343. <https://doi.org/10.1186/s12866-020-02022-z>
- Rajewski, J. dan Dobrzynska-Inger, A. (2021). Application of Response Surface Methodology (RSM) for the Optimization of Chromium (III) Synergistic Extraction by Supported Liquid Membrane. *Membranes*, 11(854). <https://doi.org/10.3390/membranes11110854>
- Rajivgandhi, G., Ramachandran, G., Maruthupandy, M., Vaseeharan, B., Manoharan, N. (2019). Molecular identification and structural characterization of marine endophytic actinomycetes *Nocardiosis* sp. GRG 2 (KT 235641) and its antibacterial efficacy against isolated ESBL producing bacteria. *Microbial Pathogenesis*, 126:138-148. <https://doi.org/10.1016/j.micpath.2018.10.014>
- Rajivgandhi, G., Vijayan, R., Maruthupandy, M., Vaseeharan, B., Manoharan, N. (2018). Antibiofilm effect of *Nocardiosis* sp. GRG 1 (KT235640) compound against biofilm forming Gram negative bacteria on UTIs. *Microbial Pathogenesis*, 118: 190-198. <https://doi.org/10.1016/j.micpath.2018.03.011>

- Ramachandran, G., Rajivgandhi, G., Maruthupandy, M., Manoharan, N. (2019). Extraction and partial purification of secondary metabolites from endophytic actinomycetes of marine green alga *Caulerpa racemose* against multi drug resistant uropatogens. *Biocatalysis and Agricultural Biotechnology*, 17:750-757. <https://doi.org/10.1016/j.bcab.2019.01.016>
- Rasheed, N.A., Hussein, N.R. (2021). *Staphylococcus aureus*: an overview of discovery, characteristics, epidemiology, virulence factors and antimicrobial sensitivity. *European Journal of Molecular and Clinical Medicine*, 8(3): 1160-1183. ISSN 2515-8260.
- Robinson, M.B., Lee, M.L., DaSilva, S. (2020). Glutamate transporters and mitochondria: signaling, co-compartmentalization, functional coupling, and future directions. *Neurochemical Research*, 45:526-540. <https://doi.org/10.1007/s11064-020-02974-8>
- Romero-Rodriguez, A., Rocha, D., Ruiz-Villafan, B., Tierrafria, V., Rodriguez-Sanoja, R., Segura-Gonzalez, D., Sanchez, S. (2016). Transcriptomic analysis of a classical model of carbon catabolite regulation in *Streptomyces coelicolor*. *BMC Microbiology*, 16:77. <https://doi.org/10.1186/s12866-016-0690-y>
- Sawers, R.G. (2021). Setting the stage: genes controlling mechanosensation and Ca²⁺ signaling in *Escherichia coli*. *Journal of Bacteriology*, 203(3):1-5. <https://doi.org/10.1128/JB.00595-20>
- Singh, B., Dahiya, M., Kumar, V., Ayyagari, A., Chaudhari, D.N., Ahire, J.J. (2025). Biofilm and Antimicrobial Resistance: Mechanisms, Implications, and Emerging Solutions. *Microbiology Research*, 16 (183). <https://doi.org/10.3390/microbiolres16080183>
- Singh, S., Verma, P., Kumari, P. (2024). Chapter 15- Use and applications of bioactive microbial metabolites in human health. In *Developments in Applied Microbiology and Biotechnology, Bioactive Microbial Metabolites*. Academic Press. <https://doi.org/10.1016/B978-0-443-18568-7.00001-X>
- Sunaryanto, R. dan Nurani, D. (2019). Optimasi permukaan respon medium fermentasi *Streptomyces prasinopilosus* sebagai antifungi terhadap patogen *Ganoderma boninense*. *Jurnal Bioteknologi dan Biosains Indonesia*, 6(2):164-173. <http://dx.doi.org/10.29122/jbbi.v6i2.3231>
- Sunaryanto, R., Pramisandi, A., Rudyono, Putra, I.G.E.P., Frediansyah, A., Damayanti, E., Basuki, W., Achnafani, D., Andriana, Y., Fitrianto, N., Mustofa. (2024). Isolation and screening of actinomycetes producing antimicrobial substances from Pulau Seribu. *International Conference Series: Earth and Environmental Science* 1377. <https://doi.org/10.1088/1755-1315/1377/1/012084>
- Tao, C., Wang, Q., Ji, J., Zhou, Z., Yue, B., Zhang, R., Jiang, S., Yuan, T. (2024). Utilization of carbon catabolite repression for efficiently biotransformation

- of anthraquinone O-glucuronides by *Streptomyces coeruleorubidus* DM. *Frontiers in Microbiology*, 15:13993073. <https://doi.org/10.3389/fmicb.2024.1393073>
- Turlin, J., Alvan-Vargas, M.V.G., Puiggene, O., Donati, S., Wenk, S., Nickel, P.I. (2025). Synthetic C1 metabolism in *Pseudomonas putida* enables strict formatotrophy and methylotrophy via the reductive glycine pathway. *Applied and Industrial Microbiology*, 16(9). <https://doi.org/10.1128/mbio.01976-25>
- Wahyudi, D.N., Utama, G.L., Frediansyah, A. (2025). Tofu wastewater recovery for β -glucan production by *Pichia norvegensis* and *Candida tropicalis*. *Current Research in Green and Sustainable Chemistry*, 10. <https://doi.org/10.1016/j.crgsc.2025.100445>
- Wang, H., Zhao, G. & Ding, X. (2017). Morphology engineering of *Streptomyces coelicolor* M145 by sub-inhibitory concentrations of antibiotics. *Scientific Reports*, 7, 13226. <https://doi.org/10.1038/s41598-017-13493-y>
- Wang, S.K., Wang, X., Miao, J., Tian, Y.T. (2018). Tofu whey wastewater is a promising basal medium for microalgae culture. *Bioresource Technology*, 79-84. <https://doi.org/10.1016/j.biortech.2018.01.012>
- Wang, S.K., Wang, X., Tian, Y.T., Cui, Y.H. (2020). Nutrient recovery from tofu whey wastewater for the economical production of docosahexaenoic acid by *Schizochytrium* sp. S31. *Science of the Total Environment*. <https://doi.org/10.1016/j.scitotenv.2019.136448>
- Xia, X., Liu, J., Huang, L., Zhang, X., Deng, Y., Li, F., Liu, Z., Huang, R. (2022). Molecular Details of Actinomycin D-Treated MRSA Revealed via High-Dimensional Data. *Marine Drugs*, 20(2):114. <https://doi.org/10.3390/md20020114>
- Yang, L., Ma, Y., Ye, J. (2021). In vivo detection of L-tryptophan in tomatoes using multi-walled carbon nanotubes and poly (sulfosalicylic acid) film modified graphite rod electrode. *Biosensors and Bioelectronics: X*, 9. <https://doi.org/10.1016/j.biosx.2021.100086>
- Yu, Z., Shen, X., Wu, Y., Yang, S., Ju, D., Chen, S. (2019). Enhancement of ascomycin production via a combination of atmospheric and room temperature plasma mutagenesis in *Streptomyces hygroscopicus* and medium optimization. *AMB Express*. <https://doi.org/10.1186/s13568-019-0749-x>
- Zhang, J., Wang, X., Vikash, V., Ye, Q., Wu, D., Liu, Y., Dong, W. (2016). ROS and ROS-mediated cellular signaling. *Oxidative Medicine and Cellular Longevity*. <http://dx.doi.org/10.1155/2016/4350965>
- Zhang, S., Hou, Q., Wang, Z., Tian, D., Zhang, X., Zhang, Y., Wu, Q., & Sun, F. (2025). Fatty acid addition strategy redirected the metabolic flux towards an

ultra-high monensin productivity of *Streptomyces cinnamonensis*. *Synthetic and systems biotechnology*, 10(2), 532–542.
<https://doi.org/10.1016/j.synbio.2025.02.009>

Zhong, L., Meng, X., Zhang, Y., Peng, Z., Zhou, R., Tang, Y., Li, Y. (2025). Cultivation of *Auxenochlorella protothecoides* using tofu whey wastewater for aquaculture feed production: Integrating resource recovery and microalgal biomass valorization strategy. *Bioresource Technology*, 435: 1-12. <https://doi.org/10.1016/j.biortech.2025.132913>

Zong, G., Cao, G., Fu, J., Zhang, P., Chen, X., Yan, W., Xin, L., Wang, Z., Xu, Y., Zhang, R. (2023). Novel mechanism of hydrogen peroxide for promoting efficient natamycin synthesis in *Streptomyces*. *Microbiology Spectrum*. 11 (5). <https://journals.asm.org/doi/10.1128/spectrum.00879-23>