

DAFTAR PUSTAKA

- Ab Wahab, S.Z., Abdul Kadir, A., Nik Hussain, N.H., Omar, J., Yunus, R., Baie, S., Mohd Noor, N., Hassan, I.I., Wan Mahmood, W.H., Abd Razak, A. and Wan Yusoff, W.Z. (2015) 'The Effect of Channa striatus (Haruan) Extract on Pain and Wound Healing of Post-Lower Segment Caesarean Section Women', *Evidence-based Complementary and Alternative Medicine*, 2015. Available at: <https://doi.org/10.1155/2015/849647>.
- Abdulgani, N., Trisnawati, I., Hidayati, D., Aisyatussoffi, N. and Arifiyanto, A. (2014) 'Snakehead (Channa striata) Extracts Treatment towards Hyperglycemic Mice (Mus musculus) Blood Glucose Levels and Pancreatic Histology Structure', *J. Appl. Environ. Biol. Sci*, 4(5), pp. 1–6.
- Adeyinka, A., Andrew, M., Manish, G., Nashiru, B., Neesha, M., Ritika, S., Stephen, D., Vivek, S. and Yamina, B. (2014) 'Dissolution behavior of poly vinyl alcohol in water and its effect on the physical morphologies of PLGA scaffolds', *Pharmaceutical and Biosciences Journal*, (February), pp. 01–06. Available at: <https://doi.org/10.20510/ukjpb/2/i1/91124>.
- Alam, N., Qayum, A., Kumar, A., Khare, V., Sharma, P.R., Andotra, S.S., Singh, S.K., Koul, S. and Gupta, P.N. (2016) 'Improved efficacy of cisplatin in combination with a nano-formulation of pentacyclic triterpenediol', *Materials Science and Engineering C*, 68, pp. 109–116. Available at: <https://doi.org/10.1016/j.msec.2016.05.093>.
- Alkholief, M., Kalam, M.A., Anwer, M.K. and Alshamsan, A. (2022) 'Effect of Solvents, Stabilizers and the Concentration of Stabilizers on the Physical Properties of Poly(D,L-lactide-co-glycolide) Nanoparticles: Encapsulation, In Vitro Release of Indomethacin and Cytotoxicity against HepG2-Cell', *Pharmaceutics*, 14(4). Available at: <https://doi.org/10.3390/pharmaceutics14040870>.
- Anees, M., Masood, M.I., Ilyas, M. and Ammad, M. (2016) 'Nanoparticles As a Novel Drug Delivery System a Review', *Pakistan Journal of Pharmaceutical Research*, 2(2), p. 160. Available at: <https://doi.org/10.22200/pjpr.20162160-167>.
- Anwer, M.K., Al-Mansoor, M.A., Jamil, S., Al-Shdefat, R., Ansari, M.N. and Shakeel, F. (2016) 'Development and evaluation of PLGA polymer based nanoparticles of quercetin', *International Journal of Biological Macromolecules*, 92, pp. 213–219. Available at: <https://doi.org/10.1016/j.ijbiomac.2016.07.002>.
- Azemi, A.K., Mustapha, S., Mohammed, M., Hanum, A. and Rasool, G. (2021) 'Review of pharmacological properties of Channa striatus (Haruan) in diabetes and cardiovascular complications', (August). Available at: <https://doi.org/10.20944/preprints202108.0200.v1>.

- Baie, S.H. and Sheikh, K.A. (2000) 'The wound healing properties of Channa striatus-cetrimide cream - tensile strength measurement', *Journal of Ethnopharmacology*, 71(1–2), pp. 93–100. Available at: [https://doi.org/10.1016/S0378-8741\(99\)00184-1](https://doi.org/10.1016/S0378-8741(99)00184-1).
- Cruchó, C.I.C. and Barros, M.T. (2017) 'Polymeric nanoparticles: A study on the preparation variables and characterization methods', *Materials Science and Engineering C*. Elsevier Ltd, pp. 771–784. Available at: <https://doi.org/10.1016/j.msec.2017.06.004>.
- Danaei, M., Dehghankhold, M., Ataei, S., Hasanzadeh Davarani, F., Javanmard, R., Dokhani, A., Khorasani, S. and Mozafari, M.R. (2018) 'Impact of particle size and polydispersity index on the clinical applications of lipidic nanocarrier systems', *Pharmaceutics*, 10(2), pp. 1–17. Available at: <https://doi.org/10.3390/pharmaceutics10020057>.
- El-Houssiny, A.S., Ward, A.A., Mostafa, D.M., Abd-El-Messieh, S.L., Abdel-Nour, K.N., Darwish, M.M. and Khalil, W.A. (2016) 'Drug-polymer interaction between glucosamine sulfate and alginate nanoparticles: FTIR, DSC and dielectric spectroscopy studies', *Advances in Natural Sciences: Nanoscience and Nanotechnology*, 7(2). Available at: <https://doi.org/10.1088/2043-6262/7/2/025014>.
- Elsayed, S.I., Girgis, G.N.S. and El-dahan, M.S. (2023) 'Formulation and Evaluation of Pravastatin Sodium-Loaded PLGA Nanoparticles : In vitro – in vivo Studies Assessment', (February), pp. 721–742.
- Fajri, U.N., Hadisaputro, S. and Soejoenoe, A. (2018) 'The Effect of Snake Fish Extract (Channa striata) on Post Cesarean Section Wound Status in Postpartum Anemia Mothers', *Indonesian Journal of Medicine*, 3(2), pp. 84–88. Available at: <https://doi.org/10.26911/theijmed.2018.03.02.04>.
- Fischer, E.R., Hansen, B.T., Nair, V., Hoyt, F.H. and Dorward, D.W. (2012) 'Scanning Electron Microscopy Elizabeth', *Current Protocols in Microbiology*, 5. Available at: <https://doi.org/10.1002/9780471729259.mc02b02s25.Scanning>.
- Fonseca-Gomes, J., Loureiro, J.A., Tanqueiro, S.R., Mouro, F.M., Ruivo, P., Carvalho, T., Sebastião, A.M., Diógenes, M.J. and Pereira, M.C. (2020) 'In vivo bio-distribution and toxicity evaluation of polymeric and lipid-based nanoparticles: A potential approach for chronic diseases treatment', *International Journal of Nanomedicine*, 15, pp. 8609–8621. Available at: <https://doi.org/10.2147/IJN.S267007>.
- Gaonkar, R.H., Soumya, G., Dewanjee, S., Sinha, S. and Gupta, A. (2017) 'Garcinol loaded vitamin E TPGS emulsified PLGA nanoparticles: preparation , physicochemical characterization , in vitro and in vivo', *Scientific Reports*, (March), pp. 1–14. Available at: <https://doi.org/10.1038/s41598-017-00696-6>.

- Gebreel, R.M., Edris, N.A., Elmofty, H.M., Tadros, M.I., El-Nabarawi, M.A. and Hassan, D.H. (2021) ‘Development and characterization of PLGA nanoparticle-laden hydrogels for sustained ocular delivery of norfloxacin in the treatment of pseudomonas keratitis: An experimental study’, *Drug Design, Development and Therapy*, 15, pp. 399–418. Available at: <https://doi.org/10.2147/DDDT.S293127>.
- Hernández-Giottonini, K.Y., Rodríguez-Córdova, R.J., Gutiérrez-Valenzuela, C.A., Peñuñuri-Miranda, O., Zavala-Rivera, P., Guerrero-Germán, P. and Lucero-Acuña, A. (2020) ‘PLGA nanoparticle preparations by emulsification and nanoprecipitation techniques: Effects of formulation parameters’, *RSC Advances*, 10(8), pp. 4218–4231. Available at: <https://doi.org/10.1039/c9ra10857b>.
- Hu, F., Liu, W., Yan, L., Kong, F. and Wei, K. (2019) ‘Optimization and characterization of poly(lactic-co-glycolic acid) nanoparticles loaded with astaxanthin and evaluation of anti-photodamage effect in vitro’, *Royal Society Open Science*, 6(10). Available at: <https://doi.org/10.1098/rsos.191184>.
- Ikasari, D., Hastarini, E. and Suryaningrum, T.D. (2020) ‘Characteristics of Cookies Formulated with Fish Protein Concentrate Powder Produced from Snakehead Fish (*Channa striata*) Extraction By-Product’, *E3S Web of Conferences*, 147, pp. 1–8. Available at: <https://doi.org/10.1051/e3sconf/202014703028>.
- Kammari, R., Das, N.G. and Das, S.K. (2017) *Nanoparticulate Systems for Therapeutic and Diagnostic Applications, Emerging Nanotechnologies for Diagnostics, Drug Delivery and Medical Devices*. Elsevier. Available at: <https://doi.org/10.1016/B978-0-323-42978-8.00006-1>.
- Kemala, T., Budianto, E. and Soegiyono, B. (2012) ‘Preparation and characterization of microspheres based on blend of poly(lactic acid) and poly(ϵ -caprolactone) with poly(vinyl alcohol) as emulsifier’, *Arabian Journal of Chemistry*, 5(1), pp. 103–108. Available at: <https://doi.org/10.1016/j.arabjc.2010.08.003>.
- Khan, Ibrahim, Saeed, K. and Khan, Idrees (2019) ‘Nanoparticles: Properties, applications and toxicities’, *Arabian Journal of Chemistry*, 12(7), pp. 908–931. Available at: <https://doi.org/10.1016/j.arabjc.2017.05.011>.
- Khoirunnisa, A.A., Mustafa, A. and Rahman, N. (2022) ‘Effect of Giving Snakehead Fish Extract (*Channa striata*) on Albumin Levels, Neutrophil, and Lymphocyte in Hypoalbuminemia Patients’, *Journal of Local Therapy*, xx, No. x(x), p. 20.
- Kim, D., Maharjan, P., Jin, M., Park, T., Maharjan, A., Amatya, R., Yang, J., Min, K.A. and Shin, M.C. (2019) ‘Potential albumin-based antioxidant nanoformulations for ocular protection against oxidative stress’,

- Pharmaceutics*, 11(7), pp. 1–16. Available at: <https://doi.org/10.3390/pharmaceutics11070297>.
- Kizilbey, K. (2019) ‘Optimization of Rutin-Loaded PLGA Nanoparticles Synthesized by Single-Emulsion Solvent Evaporation Method’, *ACS Omega*, 4(1), pp. 555–562. Available at: <https://doi.org/10.1021/acsomega.8b02767>.
- Kurniawan, D.W., Jajoriya, A.K., Dhawan, G., Mishra, D., Argemi, J., Bataller, R., Storm, G., Mishra, D.P., Prakash, J. and Bansal, R. (2018) ‘Therapeutic inhibition of spleen tyrosine kinase in inflammatory macrophages using PLGA nanoparticles for the treatment of non-alcoholic steatohepatitis’, *Journal of Controlled Release*, 288(August), pp. 227–238. Available at: <https://doi.org/10.1016/j.jconrel.2018.09.004>.
- Kurniawan, D.W., Booijink, R., Pater, L., Wols, I., Vrynas, A., Storm, G., Prakash, J. and Bansal, R. (2020) ‘Fibroblast growth factor 2 conjugated superparamagnetic iron oxide nanoparticles (FGF2-SPIONs) ameliorate hepatic stellate cells activation in vitro and acute liver injury in vivo’, *Journal of Controlled Release*, 328(April), pp. 640–652. Available at: <https://doi.org/10.1016/j.jconrel.2020.09.041>.
- Liang, J., Yan, H., Wang, X., Zhou, Y., Gao, X., Puligundla, P. and Wan, X. (2017) ‘Encapsulation of epigallocatechin gallate in zein/chitosan nanoparticles for controlled applications in food systems’, *Food Chemistry*, 231, pp. 19–24. Available at: <https://doi.org/10.1016/j.foodchem.2017.02.106>.
- Makadia, H. and Siegel, S. (2012) ‘Poly Lactic-co-Glycolic Acid (PLGA) as Biodegradable Controlled Drug Delivery Carrier’, *Polymers*, 3(3), pp. 1–19. Available at: <https://doi.org/10.3390/polym3031377>.
- Maqbool, I. and Noreen, S. (2019) ‘A Review of Novel Techniques for Nanoparticles Preparation’, *Global Drug Design & Development Review*, IV(I), pp. 41–50. Available at: [https://doi.org/10.31703/gddr.2019\(iv-i\).05](https://doi.org/10.31703/gddr.2019(iv-i).05).
- May, M. (2022) ‘Why drug delivery is the key to new medicines’, *Nature Medicine*, 28(6), pp. 1100–1102. Available at: <https://doi.org/10.1038/s41591-022-01826-y>.
- Michnik, A., Michalik, K., Kluczewska, A. and Drzazga, Z. (2006) ‘Comparative DSC study of human and bovine serum albumin’, *Journal of Thermal Analysis and Calorimetry*, 84(1), pp. 113–117. Available at: <https://doi.org/10.1007/s10973-005-7170-1>.
- Mohammadi, G., Fathian-Kolahkaj, M., Mohammadi, P., Adibkia, K. and Fattahi, A. (2020) ‘Preparation, Physicochemical Characterization and Anti-Fungal Evaluation of Amphotericin B-Loaded PLGA-PEG-Galactosamine Nanoparticles’, *Advanced Pharmaceutical Bulletin*, 11(2), pp. 311–317.

- Available at: <https://doi.org/10.34172/apb.2021.044>.
- Mourdikoudis, S., Pallares, R.M. and Thanh, N.T.K. (2018) ‘Characterization techniques for nanoparticles: Comparison and complementarity upon studying nanoparticle properties’, *Nanoscale*, 10(27), pp. 12871–12934. Available at: <https://doi.org/10.1039/c8nr02278j>.
- Mustafa, A., Widodo, M. and Kristianto, Y. (2012) ‘Albumin and zinc content of snakehead fish (*Channa striata*) extract and its role in health’, *IEESE International Journal of Science and Technology*, 1(1), pp. 1–8.
- Najahi-Missaoui, W., Arnold, R.D. and Cummings, B.S. (2021) ‘Safe nanoparticles: Are we there yet?’, *International Journal of Molecular Sciences*, 22(1), pp. 1–22. Available at: <https://doi.org/10.3390/ijms22010385>.
- Pal, S.L., Jana, U., Manna, P.K., Mohanta, G.P. and Manavalan, R. (2011) ‘Nanoparticle: An overview of preparation and characterization’, *Journal of Applied Pharmaceutical Science*, 01(06), pp. 228–234.
- Pratiwi, Hadisaputro, S., Sudirman, Ta’adi and Sunarjo, L. (2021) ‘The Effectiveness of Hydrogel from Snakehead Fish Extract (*Chana Striata*) on Wound Healing of Grade II Ulcer in Type II Diabetes Mellitus Patients’, *International Journal of Nursing and Health Services (IJNHS)*, 4(2), pp. 215–222. Available at: <https://www.ijnhs.net/index.php/ijnhs/article/view/437>.
- Pudlarz, A. and Szemraj, J. (2018) ‘Nanoparticles as carriers of proteins, peptides and other therapeutic molecules’, *Open Life Sciences*, 13(1), pp. 285–298. Available at: <https://doi.org/10.1515/biol-2018-0035>.
- Rahman, M., Molla, M., Sarker, M., Chowdhury, S. and Shaikh, M. (2018) ‘Biotechnology and Biomedical Engineering Snakehead Fish (*Channa striata*) and Its Biochemical’, *SF Journal of Biotechnology and Biomedical Engineering*, 1(1), pp. 1–5. Available at: https://www.researchgate.net/publication/324731953_Snakehead_Fish_Channa_striata_and_Its_Biochemical_Properties_for_Therapeutics_and_Health_Benefits.
- Ridolfo, R., Tavakoli, S., Junnuthula, V., Williams, D.S., Urtti, A. and Van Hest, J.C.M. (2021) ‘Exploring the Impact of Morphology on the Properties of Biodegradable Nanoparticles and Their Diffusion in Complex Biological Medium’, *Biomacromolecules*, 22(1), pp. 126–133. Available at: <https://doi.org/10.1021/acs.biomac.0c00726>.
- Syifa, F., Hidayah, N., Lukitaningsih, E., Irnawati and Rohman, A. (2022) ‘Physicochemical properties, fatty acid composition and FTIR Spectra of Gabus (*Channa striata*) fish oil’, *Food Research*, 6(2), pp. 219–224. Available at: [https://doi.org/10.26656/fr.2017.6\(2\).197](https://doi.org/10.26656/fr.2017.6(2).197).

- Taslim, N.A., Marsella, C.P., Bukhari, A., Cangara, M.H., Aman, A.M., Aminuddin, A. and Madjid, M. (2022) 'The effect of snakehead fish extract on acute wound healing process in hyperglycemic rats', *F1000Research*, 11, p. 356. Available at: <https://doi.org/10.12688/f1000research.109196.1>.
- Truong, T.M.T., Nguyen, V.M., Tran, T.T. and Le, T.M.T. (2021) 'Characterization of Acid-Soluble Collagen from Food'.
- Tungadi, R., Moo, D.. and Mozin, W. (2017) 'Characterization And Physical Stability Evaluation Of Snakehead Fish (*Ophiocephalus Striatus*) Powder Nanoemulsion Department of Pharmacy , Faculty of Sport and Health , State University of Gorontalo , Gorontalo , INTRODUCTION : In Indonesia , one of fre', *International Journal of Pharmaceutical Sciences and Research*, 8(June), pp. 2720–2724. Available at: [https://doi.org/10.13040/IJPSR.0975-8232.8\(6\).2720-24](https://doi.org/10.13040/IJPSR.0975-8232.8(6).2720-24).
- Utami, N.K. and Amperawati, M. (2020) 'Sediaan Nanopartikel Kitosan Ekstrak Ikan Gabus (*Channa Striata*) Dan Uji Aktivitas Albumin Terhadap Penyembuhan Luka Pasca Pencabutan Gigi', *Jurnal Skala Kesehatan*, 11(1), pp. 12–20. Available at: <https://doi.org/10.31964/jsk.v11i1.233>.
- Włodarczyk, M.T., Dragulska, S.A., Chen, Y., Poursharifi, M., Acosta Santiago, M., Martignetti, J.A. and Mieszawska, A.J. (2023) 'Pt(II)-PLGA Hybrid in a pH-Responsive Nanoparticle System Targeting Ovarian Cancer', *Pharmaceutics*, 15(2). Available at: <https://doi.org/10.3390/pharmaceutics15020607>.
- Zielińska Aleksandra, Filipa Carreiró, Ana M. Oliveira, Andreia Neves, Bárbara Pires, D. Nagasamy Venkatesh, A.D., Massimo Lucarini, P.E., Silva, A.M. and , Antonello Santini, and E.B.S. (2020) 'Polymeric Nanoparticles: Production, Characterization, Toxicology and Ecotoxicology', *Molecules*, 25, p. 3731.