

DAFTAR PUSTAKA

- Abrahams, S., Haylett, W. L., Johnson, G., Carr, J. A., Bardien, S., & Venter, D. P. (2019). Antioxidant effects of curcumin in models of neurodegeneration, aging, oxidative and nitrosative stress: A review. *Neuroscience*, *406*, 1–21. <https://doi.org/10.1016/j.neuroscience.2019.02.020>
- Akbarzadeh, A., dkk. (2013). Liposome: classification, preparation, and applications. *Nanoscale Research Letters*, *8*(1), 102.
- Ali, T. M., dkk. (2017). Characterization of phospholipids from sesame seeds and their potential use in food and pharmaceutical applications. *Journal of Food Science and Technology*, *54*(3), 520–529.
- Amarowicz, R., & Pegg, R. B. (2019). The potential of phenolic compounds for antioxidant and antimicrobial applications. *European Journal of Lipid Science and Technology*, *121*(2), 1800219. <https://doi.org/10.1002/ejlt.201800219>
- Anand David, A. V., Arulmoli, R., & Parasuraman, S. (2016). Overviews of biological importance of curcumin. *Journal of Intercultural Ethnopharmacology*, *5*(1), 92–95. <https://doi.org/10.5455/jice.20160122055156>
- Anand, P., Kunnumakkara, A. B., Newman, R. A., & Aggarwal, B. B. (2007). Bioavailability of curcumin: problems and promises. *Molecular Pharmaceutics*, *4*(6), 807–818.
- Anwekar, H., Patel, S., & Mohanty, T. (2021). Effect of surface charge on cellular uptake and cytotoxicity of liposomal formulations. *Colloids and Surfaces B: Biointerfaces*, *198*, 111493. <https://doi.org/10.1016/j.colsurfb.2020.111493>
- Bray, F., Ferlay, J., Soerjomataram, I., Siegel, R. L., Torre, L. A., & Jemal, A. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: A Cancer Journal for Clinicians*, *71*(3), 209–249. <https://doi.org/10.3322/caac.21660>
- Balleza, D., Cortés, H., & Mendoza-Muñoz, N. (2020). Visualization and structural characterization of liposomal formulations by TEM and AFM: Correlation with physicochemical properties. *Micron*, *135*, 102887. <https://doi.org/10.1016/j.micron.2020.102887>
- Chandrashekar, A., Subbaiya, R., & Raghavendra, P. (2020). Comparative characterization of liposomal drug delivery using DLS and TEM techniques. *Materials Today: Proceedings*, *29*, 1021–1026. <https://doi.org/10.1016/j.matpr.2020.04.316>

- Danaei, M., Dehghankhold, M., Ataei, S., Hasanzadeh, D., Javanmard, R., Dokht, S. M. A., ... & Akhondzadeh, S. (2018). Prospective of liposomes in drug delivery: investigation of methods of preparation and size measurement techniques. *International journal of nanomedicine*, 13, 61.
- Doorbar, J., Egawa, N., Griffin, H., Kranjec, C., & Murakami, I. (2015). Human papillomavirus molecular biology and disease association. *Reviews in Medical Virology*, 25(Suppl 1), 2–23. <https://doi.org/10.1002/rmv.1822>
- Duan, J., dkk. (2021). Curcumin-loaded liposomes enhanced anticancer efficacy in cervical cancer cells. *Journal of Drug Delivery Science and Technology*, 61, 102202.
- Dutta, S., Majumdar, S., & Dutta, A. (2020). UV–Visible spectrophotometry: Principles, techniques and applications in pharmaceutical analysis. *Journal of Analytical & Pharmaceutical Research*, 9(3), 123–130. <https://doi.org/10.15406/japlr.2020.09.00361>
- El-Beltagi, H. S., dkk. (2022). Characterizing the bioactive ingredients in sesame oil. *Plants*, 11(3), 358.
- Ferlay, J., & Bray, F. (2020). Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. *The Lancet Global Health*, 8(2), e191–e203. [https://doi.org/10.1016/S2214-109X\(19\)30482-6](https://doi.org/10.1016/S2214-109X(19)30482-6)
- Ghosh, S., Banerjee, S., & Sil, P. C. (2015). The beneficial role of curcumin on inflammation, diabetes and neurodegenerative disease: A recent update. *Food and Chemical Toxicology*, 83, 111–124. <https://doi.org/10.1016/j.fct.2015.05.022>
- Ghosh, S., Banerjee, S., & Sil, P. C. (2021). The beneficial role of curcumin on inflammation, diabetes and neurodegenerative disease: A recent update. *Food and Chemical Toxicology*, 153, 112286. <https://doi.org/10.1016/j.fct.2021.112286>
- Ghosh, S., Ghosal, K., & Sarkar, P. (2022). Cationic liposomes for enhanced drug delivery to cervical cancer cells: Influence of surface charge and lipid composition. *Journal of Drug Delivery Science and Technology*, 72, 103445. <https://doi.org/10.1016/j.jddst.2022.103445>
- Gika, H. G., Theodoridis, G. A., & Wilson, I. D. (2019). Liquid chromatography–high resolution mass spectrometry-based metabolomics: The high-resolution revolution. *TrAC Trends in Analytical Chemistry*, 120, 115655. <https://doi.org/10.1016/j.trac.2019.115655>
- Giordano, A., & Tommonaro, G. (2019). Curcumin and cancer. *Nutrients*, 11(10), 2376. <https://doi.org/10.3390/nu11102376>

- Goyal, A., Hura, V. S., & Gupta, U. (2020). Current advancements in liposome-based nanomedicines for therapeutic purposes: a comprehensive review. *Current Pharmaceutical Design*, 26(18), 2137-2150.
- Gupta, P. K., et al. (2016). Liposomal formulations for anticancer drug delivery: an update. *Pharmaceutical Nanotechnology*, 4(3), 167–178.
- Han, S., Kim, H., & Kim, K. (2015). Effect of charge-inducing lipids on the physicochemical properties of liposomes. *Archives of Pharmacal Research*, 38(12), 2235-2244.
- Hasan, M., Sarker, M. S., & Rahman, M. (2017). Antioxidant properties of sesame (*Sesamum indicum* L.) and its lipid fractions. *Food Chemistry*, 233, 331–338. <https://doi.org/10.1016/j.foodchem.2017.04.104>
- Hewlings, S. J., & Kalman, D. S. (2017). Curcumin: A review of its effects on human health. *Foods*, 6(10), 92. <https://doi.org/10.3390/foods6100092>
- Holthuis, J. C., & Menon, A. K. (2014). Lipid landscapes and pipelines in membrane homeostasis. *Nature Reviews Molecular Cell Biology*, 15(10), 600–610. <https://doi.org/10.1038/nrm3869>
- Honary, S., & Zahir, F. (2015). Effect of zeta potential on the properties of nano-drug delivery systems - A review (Part 2). *Tropical Journal of Pharmaceutical Research*, 12(2), 265–273. <https://doi.org/10.4314/tjpr.v12i2.20>
- Hudiyanti, Dwi; Fawrin, H; Siahaan P. (2018). Simultant encapsulation of vitamin C and beta-carotene in sesame (*Sesamum indicum* l.) liposomes Simultant encapsulation of vitamin C and beta- carotene in sesame (*Sesamum indicum* l.) liposomes.
- Jain, S., Chaurasia, M., & Chourasia, M. K. (2020). Enhanced stability and cellular uptake of DDAB-modified liposomes for drug delivery. *International Journal of Biological Macromolecules*, 152, 1232–1240. <https://doi.org/10.1016/j.ijbiomac.2020.02.193>
- Khan, M., dkk. (2020). Anticancer potential of curcumin in cervical cancer. *Biomedicine & Pharmacotherapy*, 127, 110158.
- Khan, I., Gothwal, A., Sharma, A. K., & Gupta, U. (2015). Lipid-based nanoparticles as carriers for bioactive delivery. *Frontiers in Pharmacology*, 6, 286. <https://doi.org/10.3389/fphar.2015.00286>
- Kumar, S., Randhawa, J. K., & Kaur, G. (2018). Lipid-based nanoparticles for drug delivery: Morphological characterization using electron microscopy. *Microscopy Research and Technique*, 81(6), 646–653. <https://doi.org/10.1002/jemt.23029>

- Kumar, S., Randhawa, J. K., & Kaur, G. (2020). Liposomal encapsulation of curcumin enhances its stability and antioxidant potential: A DPPH assay-based study. *Journal of Molecular Liquids*, 302, 112556. <https://doi.org/10.1016/j.molliq.2020.112556>
- Kumar, S., dkk. (2021). Current strategies for cervical cancer management. *Oncology Reviews*, 15(1), 520.
- Kunnumakkara, A. B., Bordoloi, D., Padmavathi, G., Monisha, J., Roy, N. K., Prasad, S., & Aggarwal, B. B. (2017). Curcumin, the golden nutraceutical: Multitargeting for multiple chronic diseases. *British Journal of Pharmacology*, 174(11), 1325–1348. <https://doi.org/10.1111/bph.13621>
- Kotha, R. R., & Luthria, D. L. (2019). Curcumin: Biological, pharmaceutical, nutraceutical, and analytical aspects. *Molecules*, 24(16), 2930. <https://doi.org/10.3390/molecules24162930>
- Kusumoto, K., dkk. (2010). Toxicity and stability of cationic liposomes containing DDAB. *Biological & Pharmaceutical Bulletin*, 33(1), 37–42.
- Lakowicz, J. R. (2017). *Principles of fluorescence spectroscopy* (4th ed.). Springer.
- Lasic, D. D. (1998). Novel applications of liposomes. *Trends in Biotechnology*, 16(7), 307–321.
- Lelli, D., Sahebkar, A., & Johnston, T. P. (2017). Curcumin use in cancer therapy: pharmacokinetic and pharmacodynamic considerations. *International Journal of Molecular Sciences*, 18(12), 2526.
- Li, J., Wang, X., Zhang, T., Wang, C., Huang, Z., Luo, X., & Deng, Y. (2015). A review on phospholipids and their main applications in drug delivery systems. *Asian Journal of Pharmaceutical Sciences*, 10(2), 81–98. <https://doi.org/10.1016/j.ajps.2014.09.004>
- Liu, Y., dkk. (2017). Toxicity of cationic lipids and cationic polymers in gene delivery. *Journal of Controlled Release*, 252, 208–219. <https://doi.org/10.1016/j.jconrel.2017.03.023>
- Liu, X., Zhang, J., & Chen, G. (2021). High-resolution mass spectrometry in lipidomics: Advances and applications. *Mass Spectrometry Reviews*, 40(6), 541–565. <https://doi.org/10.1002/mas.21665>
- Mahmoudi, M., Hosseinkhani, H., Hosseinkhani, M., & Simchi, A. (2021). Oehlke, K., et al. (2019). Cationic liposomes for nucleic acid delivery: effects of physicochemical properties on serum stability and cellular uptake. *European Journal of Pharmaceutics and Biopharmaceutics*, 142, 584–593.

- Nanoparticle characterization: Advances and challenges in particle size analysis. *Advanced Colloid and Interface Science*, 294, 102486. <https://doi.org/10.1016/j.cis.2021.102486>
- Ma, J., Li, C., & Zhang, Y. (2022). Characterization of lipid oxidation products in phosphatidylcholine using LC–HRMS. *Food Chemistry*, 375, 131742. <https://doi.org/10.1016/j.foodchem.2021.131742>
- Makmur, A. W. (2014). Karakterisasi Liposom Kering Kurkumin Yang Dibuat Dengan Hydrogenated Soybean Phosphatidylcholine Dan Dimethyldioctadecylammonium Bromide (DODAB). *Skripsi*. Universitas Airlangga.
- Mehta, P., Pawar, A., Mahadik, K., & Menon, S. (2019). Lipid nanoparticles for improved oral bioavailability of curcumin. *Advanced Pharmaceutical Bulletin*, 9(3), 386–393. <https://doi.org/10.15171/apb.2019.046>
- Mehnath, S., Sundaramoorthy, P., & Sekar, V. (2019). Morphological analysis of liposomal curcumin for cancer therapy using TEM and SEM. *Journal of Drug Delivery Science and Technology*, 54, 101309. <https://doi.org/10.1016/j.jddst.2019.101309>
- Mirzaei, H., Shakeri, A., Rashidi, B., Jalili, A., & Banikazemi, Z. (2017). Phytosomal curcumin: A review of pharmacokinetic, experimental and clinical studies. *Biomedicine & Pharmacotherapy*, 85, 102–112. <https://doi.org/10.1016/j.biopha.2016.11.111>
- Moballeghe Nasery, M., Abadi, B., Poormoghadam, D., Zarrabi, A., Keyhanvar, P., Khanbabaei, H., Ashrafizadeh, M., & Mohammadinejad, R. (2020). Curcumin delivery mediated by bio-based nanoparticles: A review.
- Molyneux, P. (2004). The use of the stable free radical DPPH for estimating antioxidant activity. *Songklanakarin Journal of Science and Technology*, 26(2), 211–219.
- Mosmann, T. (1983). Rapid colorimetric assay for cellular growth and survival: Application to proliferation and cytotoxicity assays. *Journal of Immunological Methods*, 65(1–2), 55–63
- Namiki, M. (2007). Nutraceutical functions of sesame: A review. *Critical Reviews in Food Science and Nutrition*, 47(7), 651–673.
- Nardo, L., Andrezza, A. C., & Riva, M. (2021). Curcumin as a potent antioxidant: Chemical structure and mechanism of radical scavenging. *Antioxidants*, 10(7), 1129. <https://doi.org/10.3390/antiox10071129>

- Naseri, N., dkk. (2015). Preparation of nanoliposomal curcumin with enhanced stability and cellular uptake efficiency. *Journal of Functional Foods*, 19, 130-141.
- Nelson, K. M., Dahlin, J. L., Bisson, J., et al. (2017). The essential medicinal chemistry of curcumin: Miniperspective. *Journal of Medicinal Chemistry*, 60(5), 1620–1637. <https://doi.org/10.1021/acs.jmedchem.6b00975>
- Nicolás-Boluda, A., & Donnadieu, E. (2020). Role of surface charge in liposomal cell interactions: A key factor in drug delivery and therapeutic efficacy. *Nanomedicine*, 15(16), 1561–1578. <https://doi.org/10.2217/nmm-2020-0085>
- Nurhasanah, I., dkk. (2019). Potensi fosfolipid nabati sebagai bahan pembentuk liposom. *Jurnal Farmasi Indonesia*, 14(2), 87–95.
- Oehlke, K., dkk. (2019). Cationic liposomes for nucleic acid delivery: effects of physicochemical properties on serum stability and cellular uptake. *European Journal of Pharmaceutics and Biopharmaceutics*, 142, 584-593.
- Othman, S., dkk. (2022). Inovasi Penghantaran Obat: Pengembangan Liposom untuk Efektivitas Kurkumin pada Kunyit (*Curcuma Longa L.*). *Prosiding Workshop dan Seminar Nasional Farmasi*, 3, 372-383.
- Pathak, N., Rai, A. K., Kumari, R., & Bhat, K. V. (2014). Value addition in sesame: A perspective on bioactive components for enhancing utility and profitability. *Pharmacognosy Reviews*, 8(16), 147–155.
- Patel, H., Singh, S., & Patel, A. (2021). Development and evaluation of curcumin-loaded liposomes using UV–Visible spectroscopy. *Journal of Drug Delivery Science and Technology*, 64, 102639. <https://doi.org/10.1016/j.jddst.2021.102639>
- Patil, Y., Panyam, J., & Sadhukha, T. (2018). Quaternary ammonium surfactants as antimicrobial agents in drug delivery. *Advanced Drug Delivery Reviews*, 131, 15–29. <https://doi.org/10.1016/j.addr.2018.07.003>
- Pattni, B. S., Chupin, V. V., & Torchilin, V. P. (2015). New developments in liposomal drug delivery. *Chemical Reviews*, 115(19), 10938–10966. <https://doi.org/10.1021/acs.chemrev.5b00046>
- Pattni, B. S., Chupin, V. V., & Torchilin, V. P. (2018). New developments in liposomal drug delivery. *Chemical Reviews*, 118(15), 10958–11005. <https://doi.org/10.1021/acs.chemrev.8b00264>
- Pavia, D. L., Lampman, G. M., Kriz, G. S., & Vyvyan, J. R. (2015). *Introduction to spectroscopy* (5th ed.). Cengage Learning

- Pérez-Herrero, E., & Fernández-Medarde, A. (2021). Advanced targeted therapies in cancer: Drug nanocarriers, the future of chemotherapy. *European Journal of Pharmaceutics and Biopharmaceutics*, 168, 21–35. <https://doi.org/10.1016/j.ejpb.2021.08.002>
- Praditya, D., Kirchhoff, L., Brüning, J., Rachmawati, H., Steinmann, J., & Steinmann, E. (2019). Anti-infective properties of curcumin: A comprehensive review. *British Journal of Pharmacology*, 177(20), 4659–4677. <https://doi.org/10.1111/bph.15119>
- Pramod, K., Venkatesh, P., & Mandal, S. (2019). Spectrophotometric estimation of encapsulation efficiency of curcumin liposomes. *International Journal of Pharmaceutical Sciences Review and Research*, 54(1), 30–35.
- Prasad, S., Tyagi, A. K., & Aggarwal, B. B. (2014). Recent developments in delivery, bioavailability, absorption and metabolism of curcumin: the golden pigment from golden spice. *Cancer Research and Treatment*, 46(1), 2–18. <https://doi.org/10.4143/crt.2014.46.1.2>
- Prasad, S., Tyagi, A. K., & Aggarwal, B. B. (2021). Chemical and biological properties of curcumin and its role in cancer chemoprevention. *Current Pharmaceutical Design*, 27(28), 3267–3279. <https://doi.org/10.2174/1381612826666201123123048>
- Prasad, S., Gupta, S. C., & Aggarwal, B. B. (2021). Curcumin, a component of golden spice: From bedside to bench and back. *Biotechnology Advances*, 47, 107674. <https://doi.org/10.1016/j.biotechadv.2020.107674>
- Priyadarsini, K. I. (2014). The chemistry of curcumin: from extraction to therapeutic agent. *Molecules*, 19(12), 20091–20112. <https://doi.org/10.3390/molecules191220091>
- Salehi, B., Stojanović-Radić, Z., Matejić, J., Sharopov, F., Antolak, H., Kregiel, D., ... & Sharifi-Rad, J. (2020). The therapeutic potential of curcumin: A review of clinical trials. *European Journal of Medicinal Chemistry*, 188, 112016. <https://doi.org/10.1016/j.ejmech.2019.112016>
- Rahman, S., Beg, S., & Singh, S. (2020). Identification of curcumin–lipid interactions using LC–HRMS and molecular modeling. *Journal of Molecular Structure*, 1220, 128731. <https://doi.org/10.1016/j.molstruc.2020.128731>
- Rahman, M., Islam, M. S., & Chowdhury, R. (2023). Enhanced radical scavenging activity of curcumin through DDAB-modified liposomal encapsulation. *Colloids and Surfaces B: Biointerfaces*, 225, 113250. <https://doi.org/10.1016/j.colsurfb.2023.113250>

- Rahman, M., Islam, M. S., & Chowdhury, R. (2023). Enhanced cytotoxicity of curcumin through DDAB-modified liposomal encapsulation in cervical cancer cells. *Colloids and Surfaces B: Biointerfaces*, 225, 113250.
- Raza, K., Singh, B., Lohan, S., Singh, S. K., & Sharma, G. (2016). A simple and reliable method for preparation and characterization of nanostructured lipid carriers and liposomes. *Journal of visualized experiments: JoVE*, (113), e54284.
- Rihhadatulaisy, A. (2018). Stabilisasi Liposom dalam Sistem Penghantaran Obat. *Majalah Farmasetika*, 3(4), 260-267.
- Rossi, M., Marchetti, N., & Cavazzini, A. (2019). Characterization of phospholipids in natural oils by LC–HRMS: Application to sesame and soybean oil. *Journal of Chromatography A*, 1596, 121–132. <https://doi.org/10.1016/j.chroma.2019.03.019>
- Pisoschi, A. M., Pop, A., & Iordache, F. (2021). Methods for measuring antioxidant activity of natural compounds: Recent trends and perspectives. *Food Analytical Methods*, 14(1), 1–26. <https://doi.org/10.1007/s12161-020-01823-1>
- Sasaki, T., Kondo, Y., & Sato, M. (2017). Lipidomic analysis of phospholipids in sesame seeds using LC–MS. *Journal of Oleo Science*, 66(11), 1263–1271. <https://doi.org/10.5650/jos.ess17056>
- Seddon, A. M., Casey, D., Law, R. V., Gee, A., Templer, R. H., & Ces, O. (2015). Drug interactions with lipid membranes. *Chemical Society Reviews*, 38(9), 2509–2519. <https://doi.org/10.1039/C4CS00194C>
- Sercombe, L., Veerati, T., Moheimani, F., Wu, S. Y., Sood, A. K., & Hua, S. (2015). Advances and challenges of liposome assisted drug delivery. *Frontiers in Pharmacology*, 6, 286. <https://doi.org/10.3389/fphar.2015.00286>
- Shanmugam, M. K., dkk. (2015). Targeting cancer stem cells by curcumin and its analogs: A potential strategy for cancer therapy. *Cancer Letters*, 357(2), 160–170. <https://doi.org/10.1016/j.canlet.2014.11.044>
- Sivanantham, B., Sethuraman, S., & Krishnan, U. M. (2016). Curcumin induces apoptosis in human cervical cancer cells through p53-dependent pathway. *Journal of Agricultural and Food Chemistry*, 64(44), 8642–8651. <https://doi.org/10.1021/acs.jafc.6b03961>
- Skehan, P., Storeng, R., Scudiero, D., & Monks, A. (1990). New colorimetric cytotoxicity assay for anticancer-drug screening. *Journal of the National Cancer Institute*, 82(13), 1107–1112.

- Skoog, D. A., Holler, F. J., & Crouch, S. R. (2018). *Principles of instrumental analysis* (7th ed.). Cengage Learning.
- Tang, J., Zhang, L., & Liu, Y. (2021). Influence of cationic surfactant modification on morphology and stability of liposomes: A TEM-based study. *Colloids and Surfaces B: Biointerfaces*, 201, 111646. <https://doi.org/10.1016/j.colsurfb.2021.111646>
- Tayebi, L., Javanmard, R., & Mozafari, M. (2016). Electron microscopy characterization of nano-liposomes: Morphology, size, and lamellarity. *Micron*, 82, 84–92. <https://doi.org/10.1016/j.micron.2015.11.003>
- Van Meer, G., Voelker, D. R., & Feigenson, G. W. (2008). Membrane lipids: where they are and how they behave. *Nature Reviews Molecular Cell Biology*, 9(2), 112–124.
- Wang, Y. J., Pan, M. H., Cheng, A. L., dkk. (2017). Stability of curcumin in buffer solutions and characterization of its degradation products. *Journal of Pharmaceutical and Biomedical Analysis*, 15(12), 1867–1876.
- Wang, Y., Liu, X., & Zhang, H. (2019). Liposomal curcumin enhances cytotoxicity against cervical cancer cells through improved cellular uptake. *International Journal of Nanomedicine*, 14, 8033–8045. <https://doi.org/10.2147/IJN.S223712>
- Wang, H., Li, Z., Wu, C., & Zhao, Y. (2019). Role of cationic surfactants in liposomal stability and drug release behavior. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 567, 9–18. <https://doi.org/10.1016/j.colsurfa.2019.01.019>
- WHO. (2023). *Cervical cancer fact sheet*. World Health Organization.
- Wilken, R., Veena, M. S., Wang, M. B., & Srivatsan, E. S. (2011). Curcumin: A review of anti-cancer properties and therapeutic activity in head and neck squamous cell carcinoma. *Molecular Cancer*, 10, 12. <https://doi.org/10.1186/1476-4598-10-12>
- Wulandari, A., Putri, D. F., & Yuliani, G. A. (2020). Determination of curcumin concentration using UV – Vis spectrophotometry: Optimization of solvent system and wavelength. *Indonesian Journal of Pharmacy*, 31(2), 80–88. <https://doi.org/10.14499/indojps.v31i2.519>
- Wu, Y., Li, W., & Gao, J. (2021). LC–HRMS-based investigation on the interaction between curcumin and phospholipids in liposomal systems. *Colloids and Surfaces B: Biointerfaces*, 205, 111872. <https://doi.org/10.1016/j.colsurfb.2021.111872>

- Yallapu, M. M., Jaggi, M., & Chauhan, S. C. (2016). Curcumin nanoformulations: A future nanomedicine for cancer. *Drug Discovery Today*, 17(1–2), 71–80. <https://doi.org/10.1016/j.drudis.2011.09.009>
- Yallapu, M. M., dkk. (2012). Curcumin induces apoptosis in cervical cancer cells. *Molecular Cancer Therapeutics*, 11(1), 47–56.
- Zaki, A., dkk. (2023). Uji Aktivitas Antiproliferasi Formula Liposom Ekstrak Etanol Kunyit (*Curcuma domestica*) Terhadap Sel Kanker Payudara T47D. *Pharmaceutical Science and Research*, 3(1).
- Zhang, J., dkk. (2020). Sesame-derived phospholipid liposomes for the encapsulation and delivery of polyphenols: Stability and antioxidant activity. *Food Chemistry*, 320, 126647.
- Zhang, Y., Chan, H. F., & Leong, K. W. (2015). Advanced materials and processing for drug delivery: The past and the future. *Advanced Drug Delivery Reviews*, 65(1), 104–120. <https://doi.org/10.1016/j.addr.2012.10.003>
- Zhang, Y., Chen, F., & Luo, J. (2018). Advances in LC–HRMS for structural elucidation of natural products. *Analytical and Bioanalytical Chemistry*, 410(25), 6461–6474. <https://doi.org/10.1007/s00216-018-1213-5>
- Zhang, Y., Zhao, F., & Wang, S. (2021). Influence of surfactant composition on antioxidant performance of liposomal curcumin assessed by DPPH assay. *Food Biophysics*, 16(3), 455–465. <https://doi.org/10.1007/s11483-021-09698-8>
- Zhao, F., Zhang, Y., & Wang, S. (2020). The role of surfactant charge and composition on the morphology and stability of liposomes observed by TEM. *Langmuir*, 36(8), 2034–2042. <https://doi.org/10.1021/acs.langmuir.9b03212>
- Zheng, B., Chen, L., & McClements, D. J. (2020). Curcumin encapsulation in liposomes and related lipid nanoparticles: Physicochemical stability and anticancer activity. *Food & Function*, 11(9), 8339–8351. <https://doi.org/10.1039/D0FO01254H>
- Zhou, Q., et al. (2016). Cationic liposomes for cancer gene delivery. *Materials Today*, 19(10), 493–502. <https://doi.org/10.1016/j.mattod.2016.05.022>
- Zhou, Y., Xu, J., & Liang, X. (2020). High-resolution mass spectrometry in pharmaceutical analysis: Trends and perspectives. *Journal of Pharmaceutical and Biomedical Analysis*, 189, 113454. <https://doi.org/10.1016/j.jpba.2020.113454>