

DAFTAR PUSTAKA

- Alqahtani, M.S., Kazi, M., Alsenaidy, M.A., dan Ahmad, M.Z., 2021. Advances in Oral Drug Delivery. *Frontiers in Pharmacology*, **12**: .
- AOAC, 2019. , dalam: *Official Methods of Analysis of The Association of Official Analytic Chemists: Official Methods of Analysis of AOAC International*.
- Ardani, H.K., Imawan, C., Handayani, W., Djuhana, D., Harmoko, A., dan Fauzia, V., 2017. Enhancement of the stability of silver nanoparticles synthesized using aqueous extract of *Diospyros discolor* Willd. leaves using polyvinyl alcohol. *IOP Conference Series: Materials Science and Engineering*, **188**: 012056.
- Ashfaq, M., Shahid, S., Rasul, A., Hanif, M., Khan, U., Khames, A., dkk., 2022. Enhancement of The Solubility and Bioavailability of Pitavastatin through a Self-Nanoemulsifying Drug Deivery System. *Pharmaceutics*, **14**: 1–18.
- Avachat, Amelia, M., Patel, dan Vijay, G., 2015. Self nanoemulsifying drug delivery system of stabilized ellagic acid–phospholipid complex with improved dissolution and permeability. *Saudi Pharmaceutical Journal*, 276–289.
- Bahadur, S., Yadu, K., Baghel, P., Naurange, T., dan Sahu, M., 2020. Review of formulation and evaluation of self-micro emulsifying drug delivery system (SMEDDS). *ScienceRise: Pharmaceutical Science*, **26**: 25–35.
- Bajaj A, Rao, Khole, dan Munjapara, 2012. Self Nano-Emulsifying Drug Delivery System of Cefpodoxime Proxetil Containing Tocopherol Polyethylene glycol succinate. *Departement of Pharmaceutics*, .
- Bakhle, S.S., 2016. Development and Evaluation of Liquid and Solid Self-microemulsifying Drug Delivery System of Lovastatin. *Asian Journal of Pharmaceutics (AJP)*, **10**: .
- Balakumar, K., Raghavan, C.V., selvan, N.T., prasad, R.H., dan Abdu, S., 2013. Self nanoemulsifying drug delivery system (SNEDDS) of Rosuvastatin calcium: Design, formulation, bioavailability and pharmacokinetic evaluation. *Colloids and Surfaces B: Biointerfaces*, **112**: 337–343.
- Baloch, J., Sohail, M.F., Sarwar, H.S., Kiani, M.H., Khan, G.M., Jahan, S., dkk., 2019. Self-Nanoemulsifying Drug Delivery System (SNEDDS) for Improved Oral Bioavailability of Chlorpromazine: In Vitro and In Vivo Evaluation. *Medicina*, **55**: .
- Basaliouss, E.B., Shawky, N., dan Badr-Eldin, S.M., 2010. SNEDDS containing bioenhancers for improvement of dissolution and oral absorption of lacidipine. I: development and optimization. *International Journal of Pharmaceutics*, **391**: 203–211.
- Beg, S., Sandhu, P.S., Batra, R.S., Khurana, R.K., dan Singh, B., 2015. QbD-based systematic development of novel optimized solid self-nanoemulsifying drug delivery systems (SNEDDS) of lovastatin with enhanced biopharmaceutical performance. *Drug Delivery*, **22**: 765–784.
- Beig, A., Miller, J.M., Lindley, D., dan Dahan, A., 2017. Striking the Optimal Solubility–Permeability Balance in Oral Formulation Development for Lipophilic Drugs: Maximizing Carbamazepine Blood Levels. *Molecular Pharmaceutics*, **14**: 319–327.
- Bhanse, N.D. dan Shah, C.N., 2016. A Review of Research Study on - Self Nanoemulsifying Drug Delivery System. *J Pharm. Sci. Bioscientific Res.*, **6**: 621–627.



- Bose, A., 2014. HPLC Calibration Process Parameters In Terms of System Suitability Test. *Austin Chromatography*, **1**: 1–4.
- BPOM, 2005. *Peraturan Kepala Badan Pengawasan Obat Dan Makanan Republik Indonesia No: HK.00.05.3.1818 Tentang Pedoman Uji Bioekivalensi*. jakarta, Indonesia.
- Bunaciu, A.A. dan Aboul-Enein, H.Y., 2021. Adulterated drug analysis using FTIR spectroscopy. *Applied Spectroscopy Reviews*, **56**: 423–437.
- Buya, A.B., Beloqui, A., Memvanga, P.B., dan Préat, V., 2020. Self-Nano-Emulsifying Drug-Delivery Systems: From the Development to the Current Applications and Challenges in Oral Drug Delivery. *Pharmaceutics*, **12**: 1194.
- CDER Guidances, 2006. Guidance For Industry : Bioequivalence Guidance.
- Čelebier, M. dan Nenni, M., 2015. Effect of internal standard on HPLC analysis of tablet dosage forms: An experimental study with statistical comparison.
- Čerpnjak, K., Zvonar, A., Gašperlin, M., dan Vrečer, F., 2013a. Lipid-based systems as a promising approach for enhancing the bioavailability of poorly water-soluble drugs. *Acta Pharmaceutica*, **63**: 427–445.
- Čerpnjak, K., Zvonar, A., Gašperlin, M., dan Vrečer, F., 2013b. Lipid-based systems as a promising approach for enhancing the bioavailability of poorly water-soluble drugs. *Acta Pharmaceutica*, **63**: 427–445.
- Chadha, R. dan Bhandari, S., 2014. Drug-excipient compatibility screening—Role of thermoanalytical and spectroscopic techniques. *Journal of Pharmaceutical and Biomedical Analysis*, , Review Papers on Pharmaceutical and Biomedical Analysis 2013 **87**: 82–97.
- Chatzizaharia, K.A. dan Hatziavramidis, D.T., 2015. Dissolution Efficiency and Design Space for an Oral Pharmaceutical Product in Tablet Form. *Industrial & Engineering Chemistry Research*, **54**: 6305–6310.
- Chaudhuri, A., Shrivastava, N., Kumar, S., Singh, A.K., Ali, J., dan Baboota, S., 2022. Designing and development of omega-3 fatty acid based self-nanoemulsifying drug delivery system (SNEDDS) of docetaxel with enhanced biopharmaceutical attributes for management of breast cancer. *Journal of Drug Delivery Science and Technology*, **68**: 103117.
- Costa, P., 2001. An alternative method to the evaluation of similarity factor in dissolution testing. *International Journal of Pharmaceutics*, **220**: 77–83.
- Cutrignelli, A., Trapani, A., Lopedota, A., Franco, M., Mandracchia, D., Denora, N., dkk., 2011. Griseofulvin/Carrier Blends: Application of Partial Least Squares (PLS) Regression Analysis for Estimating the Factors Affecting the Dissolution Efficiency. *AAPS PharmSciTech*, **12**: 1019–1030.
- Dahan, A. dan Hoffman, A., 2007. The effect of different lipid based formulations on the oral absorption of lipophilic drugs: The ability of in vitro lipolysis and consecutive ex vivo intestinal permeability data to predict in vivo bioavailability in rats. *European Journal of Pharmaceutics and Biopharmaceutics*, **67**: 96–105.
- Danaei, M., Dehghankhold, M., Ataei, S., Hasanzadeh Davarani, F., Javanmard, R., Dokhani, A., dkk., 2018. Impact of Particle Size and Polydispersity Index on the Clinical Applications of Lipidic Nanocarrier Systems. *Pharmaceutics*, **10**: 57.
- Daublain, P., Feng, K.-I., Altman, M.D., Martin, I., Mukherjee, S., Nofsinger, R., dkk., 2017. Analyzing the Potential Root Causes of Variability of Pharmacokinetics in Preclinical Species. *Molecular Pharmaceutics*, **14**: 1634–1645.

- De Giorgio, R., De Crescenzo, F., Pesci, N., Martens, M., Howard, W., Cowen, P.J., dkk., 2021. Statin For Major Depressive Disorder: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *PLOS ONE*, **16**: 1–18.
- Desai, S.A., Mohite, R.A., dan Hajare, A., 2015. Screening of safflower oil microemulsion for enhancing bioavailability of lovastatin. *Int. J. Pharm. Sci. Res.*, **6**: .
- Devireddy dan Jonnalagadda, 2021. A Literature Review On Self-Nanoemulsifying Drug Delivery System (SNEDDS). *International Journal Pharmaceutical Science Review and Research*, 85–94.
- Duong, H. dan Bajaj, T., 2022. Lovastatin, dalam: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Elbardisy, B., Boraie, N., dan Galal, S., 2022. Tadalafil Nanoemulsion Mists for Treatment of Pediatric Pulmonary Hypertension via Nebulization. *Pharmaceutics*, **14**: 2717.
- Gerwert, K. dan Kötting, C., 2010. Fourier Transform Infrared (FTIR) Spectroscopy, dalam: John Wiley & Sons, Ltd (Editor), *ELS*. Wiley.
- Giang Thi Thu, V., Nghia Thi, P., Huyen Thi, N., Hung Canh, N., Yen Thi Hai, T., Tung Bao, P., dkk., 2020. Application of the artificial neural network to optimize the formulation of self-nanoemulsifying drug delivery system containing rosuvastatin. *Journal of Applied Pharmaceutical Science*, .
- ICH, 2006. Q 2 (R1) Validation of Analytical Procedures: Text and Methodology. hal. 15.
- Jambhekar, S. dan Breen, J., 2009. *Basic Pharmacokinetics*, 1st ed. Pharmaceutical Press, London, London.
- Jamrógiewicz, M., 2012. Application of the near-infrared spectroscopy in the pharmaceutical technology. *Journal of Pharmaceutical and Biomedical Analysis*, **66**: 1–10.
- Joseph, L dan Mathew, J, 2021. Pharmacological Investigation of Pitavastatin and Lovastatin on Inflammation-In Vitro. *Journal of Pharmaceutical Science and Research*, **13**: 30–33.
- Kassaye, L. dan Genete, G., 2013. Evaluation and comparison of in-vitro dissolution profiles for different brands of amoxicillin capsules. *African Health Sciences*, **13**: 369–375.
- Kassem, A.A., Mohsen, A.M., Ahmed, R.S., dan Essam, T.M., 2016. Self-nanoemulsifying drug delivery system (SNEDDS) with enhanced solubilization of nystatin for treatment of oral candidiasis: Design, optimization, in vitro and in vivo evaluation. *Journal of Molecular Liquids*, **218**: 219–232.
- Kazi, M., Al-Swairi, M., Ahmad, A., Raish, M., Alanazi, F.K., Badran, M.M., dkk., 2019. Evaluation of Self-Nanoemulsifying Drug Delivery Systems (SNEDDS) for Poorly Water-Soluble Talinolol: Preparation, in vitro and in vivo Assessment. *Frontiers in Pharmacology*, **10**: 459.
- Kazusaki, M., Ueda, S., Takeuchi, N., dan Ohgami, Y., 2012. Validation of analytical procedures by high-performance liquid chromatography for pharmaceutical analysis. *CHROMATOGRAPHY*, **33**: 65–73.
- Khan, A.W., Kotta, S., Ansari, S.H., Sharma, R.K., dan Ali, J., 2015. Self-nanoemulsifying drug delivery system (SNEDDS) of the poorly water-soluble grapefruit flavonoid Naringenin: design, characterization, *in vitro* and *in vivo* evaluation. *Drug Delivery*, **22**: 552–561.
- Khan, K.A., 1975. The concept of dissolution efficiency. *Journal of Pharmacy and Pharmacology*, **27**: 48–49.
- Khanfar, M. dan Al-Nimry, S., 2017. Stabilization and Amorphization of Lovastatin Using Different Types of Silica. *AAPS PharmSciTech*, **18**: 2358–2367.

- Khedekar, K. dan Mittal, S., 2013. Self Emulsifying Drug Delivery System : A Review. *International Journal of Pharmaceutical Science and Research*, **4**: 4494–4507.
- Knöös, P., Onder, S., Pedersen, L., Piculell, L., Ulvenlund, S., dan Wahlgren, M., 2013. Surfactants modify the release from tablets made of hydrophobically modified poly (acrylic acid). *Results in Pharma Sciences*, **3**: 7–14.
- Kollipara, S. dan Gandhi, R.K., 2014. Pharmacokinetic aspects and in vitro-in vivo correlation potential for lipid-based formulations. *Acta Pharmaceutica Sinica. B*, **4**: 333–349.
- Ladke, A., Ingle, A., Ranaware, P., dan Damle, M., 2012. Development and validation of stability indicating HPLC method for Rosuvastatin calcium and Fenofibrate in combination. *Asian Journal of Research in Chemistry*, **5**: 606–610.
- Lakshmanan, D., 2013. Lovastatin production using Pleurotus ostreatus and its medicinal properties analysis by docking. *African Journal of Pharmacy and Pharmacology*, **7**: 1974–1986.
- Larsen, A., Ogbonna, A., Abu-Rmaileh, R., Abrahamsson, B., Østergaard, J., dan Müllertz, A., 2012. SNEDDS Containing Poorly Water Soluble Cinnarizine; Development and in Vitro Characterization of Dispersion, Digestion and Solubilization. *Pharmaceutics*, **4**: 641–665.
- Lehto, P., 2010. *Mechanistic Studies of Drug Dissolution Testing : Implications of Solid Phase Properties and in Vivo Prognostic Media*. University of helsinki, Finland.
- Li, Chow, Yip, dan Raymond, 1995. Basic Concept of Bioavailability. *HKMJ*, **1**: 63–68.
- Lipinski, C.A., 2000. Drug-like properties and the causes of poor solubility and poor permeability. *Journal of Pharmacological and Toxicological Methods*, **44**: 235–249.
- Madhuri, G., Killari, R., dan Nagaraju, 2020. Enhancement of the Physicochemical Properties of Poorly Soluble Lovastatin by Co-crystallization Techniques - In vivo Studies. *Indian Journal of Pharmaceutical Sciences*, **82**: 249–259.
- Malik, M., Ahmad, M., Minhas, M., dan Munir, A., 2014. Solubility and Permeability Studies of Aceclofenac in Different Oils. *Tropical Journal of Pharmaceutical Research*, **13**: 327.
- Martin, A.N., Sinko, P.J., dan Singh, Y. (Editor), 2011. *Martin's Physical Pharmacy and Pharmaceutical Sciences: Physical Chemical and Biopharmaceutical Principles in the Pharmaceutical Sciences*, 6th ed., 50th anniversary ed. ed. Lippincott Williams & Wilkins, Baltimore, MD.
- Mohamad Zen, N.I., Abd Gani, S.S., Shamsudin, R., dan Fard Masoumi, H.R., 2015. The Use of D-Optimal Mixture Design in Optimizing Development of Okara Tablet Formulation as a Dietary Supplement. *The Scientific World Journal*, **2015**: 684319.
- Nair, A.B., Singh, B., Shah, J., Jacob, S., Aldhubiab, B., Sreeharsha, N., dkk., 2022. Formulation and Evaluation of Self-Nanoemulsifying Drug Delivery System Derived Tablet Containing Sertraline. *Pharmaceutics*, **14**: 336.
- Nasef, A., 2021. Self - Emulsifying Drug Delivery System: A Novel Approach for Oral Delivery of Poorly Water Soluble Drugs. *Records of Pharmaceutical and Biomedical Sciences*, **5**: 52–58.
- Nasr, A., Gardouh, A., Ghonaim, H., Abdelghany, E., dan Ghorab, M., 2016. Effect of oils, surfactants and cosurfactants on phase behavior and physicochemical properties of self-nanoemulsifying drug delivery system (Snedd) for irbesartan and olmesartan. *International Journal of Applied Pharmaceutics*, **8**: 13–24.
- Nayak, A.K. dan Panigrahi, P.P., 2012. Solubility Enhancement of Etoricoxib by Cosolvency Approach. *ISRN Physical Chemistry*, **2012**: 1–5.

- Neuvonen, P.J., Backman, J.T., dan Niemi, M., 2008. Pharmacokinetic comparison of the potential over-the-counter statins simvastatin, lovastatin, fluvastatin and pravastatin. *Clinical Pharmacokinetics*, **47**: 463–474.
- Nurhabibah, Nugroho, A.K., Martien, R., dan Lukitaningsih, E., 2021. Solubility Studies and Validation of Lovastatin using High Performance Liquid Chromatography Method. *Research Journal of Pharmacy and Technology*, **14**: 6285–6288.
- Parmar, K., Patel, J., dan Sheth, N., 2015. Self nano-emulsifying drug delivery system for Embelin: Design, characterization and in-vitro studies. *Asian Journal of Pharmaceutical Sciences*, **10**: 396–404.
- Patel, A., Shah, T., Shah, G., Jha, V., Ghosh, C., Desai, J., dkk., 2010. Preservation of Bioavailability of Ingredients and Lack of Drug-Drug Interactions in a Novel Five-Ingredient Polypill (PolycapTM): A Five-Arm Phase I Crossover Trial in Healthy Volunteers. *American Journal Cardiovascular Drugs*, **10**: 95–103.
- Patel, G., Shelat, P., dan Lalwani, A., 2016. Statistical modeling, optimization and characterization of solid self-nanoemulsifying drug delivery system of lopinavir using design of experiment. *Drug Delivery*, **23**: 3027–3042.
- Patel, J., Patel, A., Raval, M., dan Sheth, N., 2011. Formulation and development of a self-nanoemulsifying drug delivery system of irbesartan. *Journal of Advanced Pharmaceutical Technology & Research*, **2**: 9–16.
- Patel, R.P. dan Patel, M.M., 2007. Physicochemical Characterization and Dissolution Study of Solid Dispersions of Lovastatin with Polyethylene Glycol 4000 and Polyvinylpyrrolidone K30. *Pharmaceutical Development and Technology*, **12**: 21–33.
- Patil, A.S., Hegde, R., Gadad, A.P., Dandagi, P.M., Masareddy, R., dan Bolmal, U., 2021. Exploring the Solvent-Anti-solvent Method of Nanosuspension for Enhanced Oral Bioavailability of Lovastatin. *Turkish Journal of Pharmaceutical Sciences*, **18**: 514–549.
- Pavoni, L., Perinelli, D.R., Bonacucina, G., Cespi, M., dan Palmieri, G.F., 2020. An Overview of Micro- and Nanoemulsions as Vehicles for Essential Oils: Formulation, Preparation and Stability. *Nanomaterials*, **10**: 135.
- Priani, S., Darusman, F., dan Nurrayyan, 2017. Formulation Self-Nano Emulsifying Drug Delivery System using Oleic Acid as Oil Phase. *Pharmaciana*, **7**: 267–276.
- Price, G. dan Patel, D.A., 2022. Drug Bioavailability, dalam: *StatPearls*. StatPearls Publishing, Treasure Island (FL).
- Priya, K., Bhikshapathi, D.V.R.N., dan Ramesh, B., 2018. Design and Characterization of Self-Nanoemulsifying Drug Delivery System of Lovastatin. *American Journal of PharmTech Research*, **8**: 173–188.
- Priya, L. dan Abbulu, K., 2019. Formulation and evaluation of lovastatin tablets by using liquid solid compact technique. *GSC Biological and Pharmaceutical Sciences*, **8**: 139–155.
- Qian, J., Meng, H., Xin, L., Xia, M., Shen, H., Li, G., dkk., 2017. Self-nanoemulsifying drug delivery systems of myricetin: Formulation development, characterization, and in vitro and in vivo evaluation. *Colloids and Surfaces B: Biointerfaces*, **160**: 101–109.
- Qureshi, M., Mallikarjun, C., dan Kian, G.W., 2015. Enhancement of solubility and Therapeutic potential of poorly soluble lovastatin by SMEDDS formulation adsorbed on directly compressed loadable tablets: A study in diet-induced hyperlipidemic rabbits. *Asian Journal of Pharmaceutical Sciences*, **40**–56.



- Rahayu, W.D., Syafitri, U.D., dan Soleh, A.M., 2019. D-optimal design for ordinal responses in mixture experiments. *Journal of Physics: Conference Series*, **1317**: 012017.
- Rakesh, P., Charmi, P., dan Rajesh, K., 2014. Quantitative Analytical applications of FTIR Spectroscopy in Pharmaceutical and Allied Areas. *Journal of Advanced Pharmacy Education & Research*, **4**: 145–157.
- Rao, S., Tan, A., Boyd, B.J., dan Prestidge, C.A., 2014. Synergistic role of self-emulsifying lipids and nanostructured porous silica particles in optimizing the oral delivery of lovastatin. *Nanomedicine*, **9**: 2745–2759.
- Rao, V.R., Sripriya, dan Shao, J., 2008. Self-nanoemulsifying drug delivery systems (SNEDDS) for oral delivery of protein drugs: I. Formulation development. *International Journal of Pharmaceutics*, **362**: 2–9.
- Raval, N., Maheshwari, R., Kalyane, D., Youngren-Ortiz, S.R., Chougule, M.B., dan Tekade, R.K., 2019. Chapter 10 - Importance of Physicochemical Characterization of Nanoparticles in Pharmaceutical Product Development, dalam: Tekade, R.K. (Editor), *Basic Fundamentals of Drug Delivery, Advances in Pharmaceutical Product Development and Research*. Academic Press, hal. 369–400.
- Rowe, Sheskey, P., dan Quinn, M., 2019. Handbook of Pharmaceutical Excipients, dalam: *Handbook Of Pharmaceutical Excipients*. Pharmaceutical Press, London.
- Ruan, J., Liu, J., Zhu, D., Gong, T., Yang, F., Hao, X., dkk., 2010. Preparation and evaluation of self-nanoemulsified drug delivery systems (SNEDDSs) of matrine based on drug-phospholipid complex technique. *International Journal of Pharmaceutics*, **386**: 282–290.
- Sabra, R., 1988. Topics in Clinical Pharmacology: Lovastatin. *The American Journal of the Medical Sciences*, **296**: 426–428.
- Sanka, K., Suda, D., dan Bakshi, V., 2016. Optimization of solid-self nanoemulsifying drug delivery system for solubility and release profile of clonazepam using simplex lattice design. *Journal of Drug Delivery Science and Technology*, **33**: 114–124.
- Sarvaiya, J.I., Kapse, G.K., dan Tank, C.J., 2013. Iontophoresis of micellar composition of Lovastatin: Study of affecting factors and in-vitro permeation. *Journal of Pharmacy Research*, **7**: 327–330.
- Savić, Sanela, Cekić, N., dan Savić, Saša, 2020. D-optimal design of experiments and comprehensive rheological analysis in the development of natural anti-aging creams. *Advanced Technologies*, **9**: 29–40.
- Schachter, M., 2005. Chemical, pharmacokinetic and pharmacodynamic properties of statins: an update. *Fundamental and Clinical Pharmacology*, **19**: 117–125.
- Seenivasan, A., Subhagar, S., Aravindan, R., dan Viruthagiri, T., 2008. Microbial production and biomedical applications of lovastatin. *Indian Journal of Pharmaceutical Sciences*, **70**: 701.
- Senapati, P.C., Sahoo, S.K., dan Sahu, A.N., 2016. Mixed surfactant based (SNEDDS) self-nanoemulsifying drug delivery system presenting efavirenz for enhancement of oral bioavailability. *Biomedicine & Pharmacotherapy*, **80**: 42–51.
- Serra, C.H. dos R., Chang, K.H., Dezani, T.M., Porta, V., dan Storpirtis, S., 2015. Dissolution efficiency and bioequivalence study using urine data from healthy volunteers: a comparison between two tablet formulations of cephalexin. *Brazilian Journal of Pharmaceutical Sciences*, **51**: 383–392.

- Shahba, A.A.-W., Mohsin, K., dan Alanazi, F.K., 2012. Novel Self-Nanoemulsifying Drug Delivery Systems (SNEDDS) for Oral Delivery of Cinnarizine: Design, Optimization, and In-Vitro Assessment. *AAPS PharmSciTech*, **13**: 967–977.
- Shaik, I.H., Agarwal, H.K., Parang, K., dan Mehvar, R., 2012. Hepatic Immunosuppressive Effects of Systemically-Administered Novel Dextran-Methylprednisolone Prodrugs with Peptide Linkers in Rats. *Journal of pharmaceutical sciences*, **101**: 4003–4012.
- Siepmann, J. dan Siepmann, F., 2013. Mathematical modeling of drug dissolution. *International Journal of Pharmaceutics*, , Poorly Soluble Drugs **453**: 12–24.
- Singh, D., 2021. Self-nanoemulsifying Drug Delivery System: A Versatile Carrier for Lipophilic Drugs. *Pharmaceutical Nanotechnology*, **9**: 166–176.
- Sopyan, I., Fudholi, A., Muchtaridi, dan Sari, Puspita.I., 2017. *Pembuatan Kokristal Simvastatin Dan Uji Ketersediaan Hayatinya*. Universitas Gadjah Mada.
- Stauffer, M., 2018. *Calibration and Validation of Analytical Methods: A Sampling of Current Approaches*. BoD – Books on Demand.
- Streck, L., de Araújo, M.M., de Souza, I., Fernandes-Pedrosa, M.F., do Egito, E.S.T., de Oliveira, A.G., dkk., 2014. Surfactant–cosurfactant interactions and process parameters involved in the formulation of stable and small droplet-sized benznidazole-loaded soybean O/W emulsions. *Journal of Molecular Liquids*, **196**: 178–186.
- Su, R., Yang, L., Wang, Y., Yu, S., Guo, Y., Deng, J., dkk., 2017. Formulation, development, and optimization of a novel octyldodecanol-based nanoemulsion for transdermal delivery of ceramide IIIB. *International Journal of Nanomedicine*, Volume **12**: 5203–5221.
- Sun, J.X., Niecestro, R., Phillips, G., Shen, J., Lukacska, P., dan Friedhoff, L., 2002. Comparative Pharmacokinetics of Lovastatin Extended-Release Tablets and Lovastatin Immediate-Release Tablets in Humans. *The Journal of Clinical Pharmacology*, **42**: 198–204.
- Suram, D. dan Veerabrahma, K., 2022. Design and Development of Solid SMEDDS and Liquisolid Formulations of Lovastatin, for Improved Drug Dissolution and In vivo Effects—a Pharmacokinetic and Pharmacodynamic Assessment. *AAPS PharmSciTech*, **23**: 123.
- Suryani, Sahumena, Alfiandi, Putrawansya, PR, Malarangeng, A, Aswan, M, dkk., 2019. . *Asian Journal of Pharmaceutics (AJP)*, **13**: 1–8.
- Tobert, J.A., 1988. Efficacy and long-term adverse effect pattern of lovastatin. *The American Journal of Cardiology*, **62**: J28–J34.
- Uauy, R., Vega, G.L., Grundy, S.M., dan Bilheimer, D.M., 1988. Lovastatin therapy in receptor-negative homozygous familial hypercholesterolemia: Lack of effect on low-density lipoprotein concentrations or turnover. *The Journal of Pediatrics*, **113**: 387–392.
- Udaya, S.M., Lobo, J., dan Uppulurj, K.B., 2015. Self Nano Emulsifying Drug Delivery Systems for Oral Delivery of Hydrophobic Drugs. *Biomedical and Pharmacology Journal*, **6**: 355–362.
- Uddin, R, Saffoon,N, dan Sutradhar, KB, 2011. Dissolution and Dissolution Apparatus. *Internatioanal Journal of current Biomedical and Pharmaceutical Research*, **1**: 201–2017.
- Urban, M.C.C., Mainardes, R.M., dan Gremião, M.P.D., 2009. Development and validation of HPLC method for analysis of dexamethasone acetate in microemulsions. *Brazilian Journal of Pharmaceutical Sciences*, **45**: 87–92.
- Urso, Blardi, dan Giorgi, 2002. A short introduction to pharmacokinetics **6**: 33–44.
- 'USP 29', , 2006. *The United State Pharmacopeia*. URL: http://www.pharmacopeia.cn/v29240/usp29nf24s0_m45950.html (diakses tanggal 24/10/2022).



UNIVERSITAS
GADJAH MADA

Formulasi Self Nano-EMulsifying Drug Delivery System : Evaluasi, Karakterisasi dan Uji Bioavailabilitas
NURHABIBAH, Prof. Dr. apt. Akhmad Kharis Nugroho, M.Si
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Villar, A.M.S., Naveros, B.C., Campmany, A.C.C., Trenchs, M.A., Rocabert, C.B., dan Bellowa, L.H., 2012. Design and optimization of self-nanoemulsifying drug delivery systems (SNEDDS) for enhanced dissolution of gemfibrozil. *International Journal of Pharmaceutics*, **431**: 161–175.
- Wang, C., Cui, B., Guo, L., Wang, A., Zhao, X., Wang, Y., dkk., 2019. Fabrication and Evaluation of Lambda-Cyhalothrin Nanosuspension by One-Step Melt Emulsification Technique. *Nanomaterials*, **9**: 145.
- Ward, N.C., Watts, G.F., dan Eckel, R.H., 2019. Statin Toxicity. *Circulation Research*, **124**: 328–350.
- Yadav, P.S., Yadav, E., Verma, A., dan Amin, S., 2014. Development, Characterization, and Pharmacodynamic Evaluation of Hydrochlorothiazide Loaded Self-Nanoemulsifying Drug Delivery Systems. *The Scientific World Journal*, **2014**: e274823.
- Yadava, S.K., Naik, J.B., Patil, J.S., Mokale, V.J., dan Singh, R., 2015. Enhanced solubility and bioavailability of lovastatin using stabilized form of self-emulsifying drug delivery system. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **481**: 63–71.
- Zhao, K., Yuan, Y., Wang, H., Li, P., Bao, Z., dan Li, Y., 2016. Preparation and evaluation of valsartan by a novel semi-solid self-microemulsifying delivery system using Gelucire 44/14. *Drug Development and Industrial Pharmacy*, **42**: 1545–1552.
- Zhao, Y., Wang, C., Chow, A.H.L., Ren, K., Gong, T., Zhang, Z., dkk., 2010. Self-nanoemulsifying drug delivery system (SNEDDS) for oral delivery of Zedoary essential oil: Formulation and bioavailability studies. *International Journal of Pharmaceutics*, **383**: 170–177.
- Zhou, J. dan Zhou, D., 2015. Improvement of oral bioavailability of lovastatin by using nanostructured lipid carriers. *Drug Design, Development and Therapy*, **9**: 5269–5275.
- Zolkeflie, N., Meor, M.A.M., dan Majeed, A., 2017. Lovastatin: History, Physicochemistry, Pharmacokinetics and Enhanced Solubility. *International Journal Research Pharmaceutical Science*, , 90-120 **8**: .
- Zolkiflee, N.F., Majeed, A., dan Affandi, M.M.M., 2017. 'Lovastatin: history, physicochemistry, pharmacokinetics and enhanced solubility', , dalam: 1. hal. 90–120.