

DAFTAR PUSTAKA

- Ahmed, F., Ghalib, R.M., Sasikala, P., and Ahmed, K.M., 2013. Cholinesterase inhibitors from botanicals. *Pharmacognosy reviews*, 7(14): 121.
- Altemimi, A., Lakhssassi, N., Baharlouei, A., Watson, D.G. and Lightfoot, D.A., 2017. Phytochemicals: Extraction, isolation, and identification of bioactive compounds from plant extracts. *Plants*, 6(4): 42.
- Alvarez-Buylla, A., García-Verdugo, J.M. and Tramontin, A.D., 2001. A unified hypothesis on the lineage of neural stem cells. *Nature Reviews Neuroscience*, 2(4): 287-293.
- Alzheimer's Association, 2019. *Alzheimer's Disease Facts and Figures*. Alzheimers Dement 2019; 15 (3): 321-87.
- Alzheimer's Indonesia, 2019. Statistik tentang Demensia: <https://alzi.or.id/statistik-tentang-demensia/> diakses pada tanggal 1 Agustus 2020.
- Alzheimer's Disease International, 2019. *World Alzheimer Report 2019: Attitudes to dementia*. London: Alzheimer's Disease International.
- Anurogo D. dan Usman F. S., 2014. 45 penyakit dan gangguan saraf. *Yogyakarta: Rapha Publishing*.
- Azwanida, N.N., 2015. A review on the extraction methods use in medicinal plants, principle, strength and limitation. *Med Aromat Plants*, 4(196): 2167-0412.
- Balcom, J.K. & Fitch, W.M., 1970. A method for the kinetic analysis of progress curves using horse serum cholinesterase as a model case. *Journal of Biological Chemistry*, 245(7): 1637-1647.
- Bishara, D., Sauer, J., and Taylor, D., 2015. The pharmacological management of Alzheimer's disease. *Progress in Neurology and Psychiatry*, 19(4): 9-16.
- Cai, L., 2014. Thin layer chromatography. *Current Protocols Essential Laboratory Techniques*, 8(1): 6-3.
- Cantwell, F.F. & Losier, M., 2002. Liquid—liquid extraction. *In Comprehensive Analytical Chemistry*, 37: 297-340. Elsevier.

- Castro, N.G., Costa, R.S., Pimentel, L.S., Danuello, A., Romeiro, N.C., Viegas Jr, C., Barreiro, E.J., Fraga, C.A., Bolzani, V.S. and Rocha, M.S., 2008. CNS-selective noncompetitive cholinesterase inhibitors derived from the natural piperidine alkaloid (-)-spectaline. *European journal of pharmacology*, **580**(3): 339-349.
- Chen, Z. & Zhong, C., 2014. Oxidative stress in Alzheimer's disease. *Neuroscience bulletin*, **30**(2): 271-281.
- Coll, J.C. & Bowden, B.F., 1986. The application of vacuum liquid chromatography to the separation of terpene mixtures. *Journal of Natural Products*, **49**(5): 934-936.
- Colovic, M.B., Krstic, D.Z., Lazarevic-Pasti, T.D., Bondzic, A.M. and Vasic, V.M., 2013. Acetylcholinesterase inhibitors: pharmacology and toxicology. *Current neuropharmacology*, **11**(3): 315-335.
- De Craene, L.P.R., 2010. *Floral Diagrams: An Aid to Understanding Flower Morphology and Evolution*. 1st edition, United Kingdom: Cambridge University Press, 274-278.
- Diaz, A.N., Sanchez, F.G., Bracho, V., Lovillo, J., and Aguilar, A., 1997. Enzymatic Determination of Fenitrothion by Cholinesterase and Acetylcholinesterase on Fluorogenic Substrates. *Fresenius Journal of Analytical Chemistry*, **357**(7): 958-961.
- Di Giovanni, S., Borloz, A., Urbain, A., Marston, A., Hostettmann, K., Carrupt, P.A., and Reist, M., 2008. In vitro screening assays to identify natural or synthetic acetylcholinesterase inhibitors: thin layer chromatography versus microplate methods. *European Journal of Pharmaceutical Sciences*, **33**(2): 109-119.
- Doğan, H. H., Duman, R., Özkalp, B., and Aydin, S., 2013. Antimicrobial activities of some mushrooms in Turkey. *Pharmaceutical Biology*, **51**(6): 707-711.
- Ellman, G.L., Courtney, K.D., Andres Jr, V., and Featherstone, R.M., 1961. A new and rapid colorimetric determination of acetylcholinesterase activity. *Biochemical Pharmacology*, **7**(2): 88-95.
- Freitas, T.R., Danuello, A., Viegas Júnior, C., Bolzani, V.S. and Pivatto, M., 2018. Mass spectrometry for characterization of homologous

- piperidine alkaloids and their activity as acetylcholinesterase inhibitors. *Rapid Communications in Mass Spectrometry*, **32**(15): 1303-1310.
- Giunta, B., Ehrhart, J., Townsend, K., Sun, N., Vendrame, M., Shytle, D., Tan, J., and Fernandez, F., 2004. Galantamine and nicotine have a synergistic effect on inhibition of microglial activation induced by HIV-1 gp120. *Brain Res Bull.* **64**(2): 165-170.
- Huang, W.J., Zhang, X.I.A. and Chen, W.W., 2016. Role of oxidative stress in Alzheimer's disease. *Biomedical reports*, **4**(5): 519-522.
- Ingkaninan, K., Temkitthawon, P., Chuenchom, K., Yuyaem, T., and Thongnoi, W., 2003. Screening for acetylcholinesterase inhibitory activity in plants used in Thai traditional rejuvenating and neurotonic remedies. *Journal of Ethnopharmacology*, **89**(2-3): 261-264.
- Jiang, T., Sun, Q. and Chen, S., 2016. Oxidative stress: a major pathogenesis and potential therapeutic target of antioxidative agents in Parkinson's disease and Alzheimer's disease. *Progress in Neurobiology*, **147**: 1-19.
- Jothy, S.L., Torey, A., Darah, I., Choong, Y.S., Saravanan, D., Chen, Y., Latha, L.Y., Deivanai, S. and Sasidharan, S., 2012. Cassia spectabilis (DC) Irwin et Barn: A promising traditional herb in health improvement. *Molecules*, **17**(9): 10292-10305.
- Levin, G.M., Bowles, T.M., and Ehret, M.J., 2005. Alzheimer's disease. In DiPiro, T., Tarbet, L., Yee, C., Matzke, R., Wells, G. and Posey, M. (Eds.). *Pharmacotherapy: A Pathophysiologic Approach*, 513-523.
- Li, Q., Yang, H., Chen, Y., and Sun, H., 2017. Recent progress in the identification of selective butyrylcholinesterase inhibitors for Alzheimer's disease. *European journal of medicinal chemistry*, **132**: 294-309.
- Li, S., Xu, L., Chen, D., Zhu, X., Huang, P., Wei, Z., Sa, R., Zhang, D., Bao, B., Wu, D., Sun, H., Gao, X., Larsen, S.S., Nielsen, I.C., Podlech, D., Liu, Y., Ohashi, H., Chang, Z., Larsen, K., Li, J., Welsh, S.L., Vincent, M.A., Zhang, M., Gilbert, M.G., Pedley, L., Schrire, B.D., Yakovlev, G.P., Thulin, M., Choi, B.H., Turland, N.J., Polhill, R.M.,

- Hou, D., Iokawa, Y., Wilmot-Dear, C.M., Kenicer, G., Nemoto, T., Lock, J.M., Salinas, A.D., Kramina, T.E., Brach, A.R., Bartholomew, B., and Sokoloff, D.D., 2010. Fabaceae (Leguminosae). In: Shu, X.J.M., eds. *Flora of China*. 10th ed., 28–33.
- Lim, K.T., Amanah, A., Chear, N.J.Y., Zahari, Z., Zainuddin, Z. and Adenan, M.I., 2018. Inhibitory effects of (+)-spectaline and iso-6-spectaline from *Senna spectabilis* on the growth and ultrastructure of human-infective species *Trypanosoma brucei rhodesiense* bloodstream form, *Experimental parasitology*, **184**: 57-66.
- Lin, M.T. & Beal, M.F., 2006. Mitochondrial dysfunction and oxidative stress in neurodegenerative diseases. *Nature*, **443**(7113): 787-795.
- Marston, A., Kissling, J., and Hostettmann, K., 2002. A rapid TLC bioautographic method for the detection of acetylcholinesterase and butyrylcholinesterase inhibitors in plants. *Phytochemical Analysis: An International Journal of Plant Chemical and Biochemical Techniques*, **13**(1): 51-54.
- Maurya, A., Kalani, K., Verma, S.C., Singh, R., and Srivastava, A., 2018. Vacuum liquid chromatography: simple, efficient and versatile separation technique for natural products. *Organic & Medicinal Chemistry*, **7**(2): 1-3.
- Moldoveanu, S. C., & David, V., 2013. Mobile Phases and Their Properties. In *Essentials in Modern HPLC Separations*, 363–447. Newnes.
- Moldoveanu, S., & David, V., 2015. Solvent Extraction. In *Modern Sample Preparation for Chromatography*, 131–189.
- Munadi, E., 2017. Tanaman Obat, Sebuah Tinjauan Singkat. In: Salim, Z. dan Munadi, E. *Info Komoditi Tanaman Obat*, 1-7. Badan Pengkajian dan Pengembangan Perdagangan Kementerian Perdagangan Republik Indonesia.
- Ning, Y., Huang, J., Kalionis, B., Bian, Q., Dong, J., Wu, J., Tai, X., Xia, S. and Shen, Z., 2015. Oleanolic acid induces differentiation of neural stem cells to neurons: an involvement of transcription factor Nkx-2.5. *Stem cells international*, **2015**.

- Obradović, D., Oljačić, S., Nikolić, K. and Agbaba, D., 2017. Influence of selected mobile phase properties on the TLC retention behavior of ziprasidone and its impurities. *Journal of Liquid Chromatography & Related Technologies*, **40**(5-6): 247-251.
- Orwa, C., Mutua, A., Kindt, R., Jamnadass, R., and Anthony, S., 2009. Agroforestry Database: a tree reference and selection guide version 4.0. *World Agroforestry Centre*, Kenya, 15.
- Paterniti, I., Cordaro, M., Campolo, M., Siracusa, R., Cornelius, C., Navarra, M., Cuzzocrea, S. and Esposito, E., 2014. Neuroprotection by association of palmitoylethanolamide with luteolin in experimental Alzheimer's disease models: the control of neuroinflammation. *CNS & Neurological Disorders-Drug Targets (Formerly Current Drug Targets-CNS & Neurological Disorders)*, **13**(9): 1530-1541.
- Pollak, Y., Gilboa, A., Ben-Menachem, O., Ben-Hur, T., Soreq, H., and Yirmiya, R., 2005. Acetylcholinesterase inhibitors reduce brain and blood interleukin-1beta production. *Ann Neurol*. **57**(5): 741-745.
- Pratama, M.E., Baroroh, F., Darmayanti, A.S., and Irawanto, R., 2016. *Kemampuan Viabilitas Biji yang Tersimpan Dalam Freezer Di Kebun Raya Purwodadi*.
- Reale, M., Iarlori, C., Gambi, F., Lucci, I., Salvatore, M., and Gambi, D., 2005. Acetylcholinesterase inhibitors effects on oncostatin-M, interleukin-1 beta and interleukin-6 release from lymphocytes of Alzheimer's disease patients. *Experimental Gerontology*. **Mar**; **40**(3): 165-171.
- Rhee, I.K., Appels, N., Luijendijk, T., Irth, H., and Verpoorte, R., 2003. Determining acetylcholinesterase inhibitory activity in plant extracts using a fluorimetric flow assay. *Phytochemical Analysis: An International Journal of Plant Chemical and Biochemical Techniques*, **14**(3): 145-149.
- Roberson, E.D., 2018. Treatment of Central Nervous System Degenerative Disorders. In Brunton, L.L., Hilal-Dandan, R., Knollmann, B.C. (Eds.). *Goodman & Gilman's The Pharmacological Basis of Therapeutical*, Thiteenth Edition. 327-338.

- Rohman, A., 2018. *Validasi dan Penjaminan Mutu, Metode Analisis Kimia*. Yogyakarta: Gadjah Mada University Press.
- Sain, A.A., Amanah, A., Zahari, Z., Salim, R.J.M., Mansor, S.M., Adenan, M.I., 2016. (+)-Spectraline, a Piperidine Alkaloid from *Senna spectabilis* DC. Effective in Reducing the In Vitro Infection of *Leishmania major*. *International Journal of Pharmacology, Phytochemistry and Ethnomedicine*, Vol. 3: 1-8. SciPress Ltd., Switzerland.
- Selegato, D.M., Monteiro, A.F., Vieira, N.C., Cardoso, P., Pavani, V.D., Bolzani, V.S., and Castro-Gamboa, I., 2017. Update: Biological and chemical aspects of *Senna spectabilis*. *Journal of the Brazilian Chemical Society*, 28(3): 415-426.
- Sirimangkalakitti, N., Olatunji, O.J., Changwichit, K., Saesong, T., Chamni, S., Chanvorachote, P., Ingkaninan, K., Plubrukarn, A., and Suwanborirux, K., 2015. Bromotyrosine Alkaloids with Acetylcholinesterase Inhibitory Activity from the Thai Sponge *Acanthodendrilla* sp. *Natural product communications*, 10(11): 1934578X1501001135.
- Slattum, P.W., Peron, E.P. and Hill, A.M., 2015. Alzheimer's disease. In DiPiro, B.G.W.J.T. and DiPiro, T.L.S.C.V. (Eds.). *Pharmacotherapy Handbook*, Ninth Edition, Barbara G. Wells, PharmD, FASHP, FCCP. McGraw-Hill Education: 817-821.
- Suciati, Laili, E.R., Poerwantoro, D., Hapsari, A.P., Gifanda, L.Z., Rabgay, K., Ekasari, W. and Ingkaninan, K. 2020. Evaluation of Cholinesterase Inhibitory Activity of Six Indonesian *Cassia* Species. *Journal of Research in Pharmacy*, 24(4): 472-478.
- Suciati, Rabgay K., Fachrunniza Y., Saesong T., Hadi T.A., Wahyuni T.S., Widyawaruyanti A., Ingkaninan K., 2019. Enzyme inhibitory activities of marine sponges against cholinesterase and 5 α -reductase. *Malays Appl Biol*. 48(3): 77-83.
- Viegas Jr, C., Bolzani, V.S., Pimentel, L.S., Castro, N.G., Cabral, R.F., Costa, R.S., Floyd, C., Rocha, M.S., Young, M.C., Barreiro, E.J. and Fraga, C.A., 2005. New selective acetylcholinesterase inhibitors

- designed from natural piperidine alkaloids. *Bioorganic & medicinal chemistry*, *13*(13): 4184-4190.
- Wang, H., Yu, M., Ochani, M., Amella, C.A, Tanovic, M., Susarla, S., Li, J.H., Wang, H., Yang, H., Ulloa, L., Al-Abed, Y., Czura, C.J., and Tracey K.J., 2003. Nicotinic acetylcholine receptor alpha7 subunit is an essential regulator of inflammation. *Nature*. *421*(6921): 384-388.
- Wang, H., Wang, H., Cheng, H. and Che, Z., 2016a. Ameliorating effect of luteolin on memory impairment in an Alzheimer's disease model. *Molecular medicine reports*, *13*(5): 4215-4220.
- Wang, W., Li, H., Yu, J., Hong, M., Zhou, J., Zhu, L., Wang, Y., Luo, M., Xia, Z., Yang, Z.J. and Tang, T., 2016b. Protective effects of chinese herbal medicine rhizoma drynariae in rats after traumatic brain injury and identification of active compound. *Molecular neurobiology*, *53*(7): 4809-4820.
- Westfall, T.C., Macarthur, H., and Westfall, D.P., 2018. Neurotransmission: The Autonomic and Somatic Motor Nervous System. In Brunton, L.L., Hilal-Dandan, R., Knollmann, B.C. (Eds.). *Goodman & Gilman's The Pharmacological Basis of Therapeutical*, Thiteenth Edition. 115-148.
- Williams, P., Sorribas, A. and Howes, M.J.R., 2011. Natural products as a source of Alzheimer's drug leads. *Natural product reports*, *28*(1): 48-77.
- World Health Organization, 2018. *Towards a dementia plan: a WHO guide*. World Health Organization.
- Xiao, X.Q., Wang, R., and Tang, X.C., 2000. Huperzine A and tacrine attenuate beta-amyloid peptide-induced oxidative injury. *J Neurosci Res.*, *61*(5): 564-569.
- Xie, H., Hou, S., Jiang, J., Sekutowicz, M., Kelly, J. and Bacskai, B.J., 2013. Rapid cell death is preceded by amyloid plaque-mediated oxidative stress. *Proceedings of the National Academy of Sciences*, *110*(19): 7904-7909.

- Zhang, H.Y. & Tang, X.C., 2000. Huperzine B, a novel acetylcholinesterase inhibitor, attenuates hydrogen peroxide induced injury in PC12 cells. *Neurosci Lett.* **292**(1): 41-44.
- Zhang, Y.L., Zhou, Z., Han, W.W., Zhang, L.L., Song, W.S., Huang, J.H. and Liu, S., 2016. Oleanolic acid inhibiting the differentiation of neural stem cells into astrocyte by down-regulating JAK/STAT signaling pathway. *The American Journal of Chinese Medicine*, **44**(01): 103-117.
- Zhou, W.W., Lu, S., Su, Y.J., Xue, D., Yu, X.L., Wang, S.W., Zhang, H., Xu, P.X., Xie, X.X. and Liu, R.T., 2014. Decreasing oxidative stress and neuroinflammation with a multifunctional peptide rescues memory deficits in mice with Alzheimer disease. *Free Radical Biology and Medicine*, **74**: 50-63.