

## DAFTAR PUSTAKA

- Abdullah, M., Mustikaningtyas, D., dan Widiatningrum, T., 2010. Inventarisasi Jenis-Jenis Tumbuhan Berkhasiat Obat di Hutan Hujan Dataran Rendah Desa Nyamplung Pulau Karimunjawa. **Biosaintifika**, Vol. 2 No.2, p. 75-81.
- Albohy, A., Mohan, S., Zheng, R.B., Pinto, B.M., and Cairo, C.W. 2011. Inhibitor selectivity of a new class of oseltamivir analogs against viral neuraminidase over human neuraminidase enzyme. **Biorganic and Medical Chemistry**, Vol. 19, p. 2817-2822.
- ASEAN Countries. 2004. **Standard of ASEAN Herbal Medicines Volume 2**. Jakarta: ASEAN Countries.
- Aweng, E.R., Hanisah, N., Mohd Nawi, M.A., Nurhanan Murni, Y., and Shamsul, M., 2012. Antioxidant activity and phenolic compounds of *Vitex trifolia* var. *Simplicifolia* associated with anticancer. **ISCA Journal of Biological Science**, Vol. 1(3), p. 65-68.
- Baz, M., Luke, C.J., Cheng, X., Jin, H., and Subbarao, K., 2013. H5N1 vaccines in humans. **Virus Research** 178, p. 78-98.
- Bogner, E., and Holzenburg, A., 2006. **New Concepts of Antiviral Therapy**. Dordrecht: Springer. P. 115-167.
- Boucher, C.A.B., Galasso, G.J. Eds. 2002. **Practical Guidelines In Antiviral Therapy 1<sup>st</sup> edition**. Amsterdam: Elsevier Science. Chapter 1, p. 2.
- Centers for Disease Control and Prevention. 2011. Antiviral Agents for the Treatment and Chemoprophylaxis of Influenza. Recommendation and Reports, Vol. 60, No. 1.
- Chattopadhyay, D., Sarkar, M.C., Chatterjee, T., Dey, R.S., Bag, P., Chakraborti, S., and Khan, M.T.H., 2009. Recent advancements for the evaluation of anti-viral activities of natural products. **New Biotechnology**, Vol. 25 No. 5, p. 347-368.

- Chen, Y and Chen, Y.-F., 2014. Evidence of selection pressures of neuraminidase gene (NA) of influenza A virus subtype H5N1 on different hosts in Guangxi Province of China. **Saudi Journal of Biological Sciences**, Vol. 21, p. 179-183.
- Cheung, C.L., Rayner, J.M., Smith, G.J.D., Wang, P., Naipospos, T.S.P., Zhang, J., Yuen, K.Y., Webster, R.G., Peiris, J.S.M., Guan, Y., and Chen, H., 2006. Distribution of amantadine resistant H5N1 avian influenza variants in Asia. **The Journal of Infectious Disease**, Vol. 193, p. 1626-1629.
- Chilmy, M. 2012. Efek antiangiogenik ekstrak polifenol biji kakao (*Theobroma cacao*) pada membrane korio allantois (CAM) embrio ayam. **Skripsi**. Fakultas Kedokteran Universitas Jember.
- Das, K., Aramini, J.M., Ma, L.C., Krug, R.M., and Arnold, E. 2010. Structure of influenza A protein insights into antiviral drug targets. **Nature Structural & Molecular Biology**, Vol. 17, p. 530-538.
- Departemen Kesehatan RI. 2000. **Parameter Standar Umum Ekstrak Tumbuhan Obat**. Jakarta: Departemen Kesehatan. p. 9-11.
- Departemen Kesehatan RI. 2008. **Farmakope Herbal Indonesia Edisi 1**. Jakarta: Departemen Kesehatan. P. 78-81.
- Droebner, K., Ehrhardt, C., Poetter, A., Ludwig, S., and Planz, O., 2007. CYSTUS052, a polyphenol-rich plant extract, exerts antiinfluenza virus activity in mice. **Antiviral Research**, Vol. 76, p. 1-10.
- Ehrhardt, C., Hrinčius, E.R., Korte, V., Mazur, I., Droebner, K., Poetter, A., Dreschers, S., Schmolke, M., Planz, O., and Ludwig, S., 2007. A polyphenol rich extract, CYSTUS052, exerts anti influenza virus activity in cell culture without toxic side effects or the tendency to induce viral resistance. **Antiviral Research**, Vol. 76, p. 38-47.
- Emmeluth, D. Eds. 2003. **Deadly Disease and Epidemics Influenza**. New York: Infobase Publishing. p. 14-23.

- Ernst, A.M., Zacherl, S., Herrmann, A., Hacke, M., Nickel, W., Wieland, F.T., Brügger, B., 2013. Differential transport of Influenza A neuraminidase signal anchor peptides to the plasma membrane. **FEBS Letters**, Vol. 587, p. 1411-1417.
- Evers, D.L., Chao, C.F., Wang, X., Zhang, Z., Huang, S.M., and Huang, E.S., 2005. Human cytomegalovirus-inhibitory flavonoids: Studies on antiviral activity and mechanism of action. **Antiviral Research**, Vol. 68, p. 124-134.
- Food and Agricultural Organization of The United Nations. 2013. Hemagglutination test. A basic Laboratory Manual for The Small-Scale Production and Testing.
- Gao, R., Du, N., Liu, D., Li, Z., Zhu, Y., and Shu, Y., 2013. Oseltamivir inhibits both viral entry and release but enhance apoptosis of cells infected with influenza A H1N1. **Biochemical and Biophysical Research Communications**, Vol. 431, p. 788-795.
- Gonçalves, J.L.S., Leitão, S.G., Monache, F.D., Miranda, M.M.F.S., Santos, M.G.M., Romanos, M.T.V., Wigg, M.D., 2001. *In vitro* antiviral effect of flavonoid-rich extracts of *Vitex polygama* (Verbenaceae) against acyclovir-resistant herpes simplex virus type 1. **Phytomedicine**, Vol. 8(6), p. 477-480.
- Grienke, U., Schmidtke, M., Grafenstein, S., Kirchmair, J., Liedl, K.R., and Rollinger, J.M., 2012. Influenza neuraminidase: A drug target for natural products. **Natural Product Reports**, Vol. 29, No. 1, p. 1-120.
- Groach, R., Yadav, K., and Singh, N., 2014. *In vitro* studies on *Vitex negundo*, a potent medicinal plant. **Environmental and Experimental Biology**, Vol. 12, p. 149-153.
- Hernández, M.M., Heraso, C., Villareal, M.L., Arispuro, I.V., Aranda, E., 1999. Biological activities of crude plant extracts from *Vitex trifolia* L. (Verbenaceae). **Journal of Ethnopharmacology**, Vol. 67, p. 37-44.

- Ho, J.Y., Chang, H.W., Lin, C.F., Liu, C.J., Hsieh, C.F., and Horng, J.T., 2014. Characterization of the antiinfluenza activity of the chinese herbal plant *Paeonia lactiflora*. **Viruses**, Vol. 6, p. 1861-1875.
- Holmes, E.C., Ghedin, E., Miller, N., Taylor, J., Bao, Y., George, K.S., Grenfell, B.T., Salzberg, S.L., Fraser, C.M., Lipman, D.J., and Taubenberger, J.K., 2005. Whole-genome analysis of human influenza A virus reveals multiple persistent lineages and reassortment among recent H3N2 viruses. **PloS Biol**, Vol. 3(9), p. 1579-1589.
- Horimoto, T., Kawaoka, Y., 2001. Pandemi Threat Posed by Avian Influenza A Viruses. **Clin. Microbiol. Rev.** 14: 129-149.
- Horimoto, T., Kawaoka, Y., 2005. Influenza: Lessons from the past pandemics, warning from current incidents. **Nature Rev Microbiol.** Vol. 3(8): 591-600.
- Hudson, J.B. 2009. The use of herbal extracts in the control of influenza Review. **Journal of Medicinal Plants Research**, Vol. 3(13), p. 1189-1195.
- Hung, H. C., Tseng, C.P., Yang, J.M., Ju, Y.W., Tseng, S.N., Chen, Y.F., Chao, Y.S., Hsieh, H.P., Shih, S.R., and Hsu, J.T.-A., 2009. Aurintricarboxylic acid inhibits influenza virus neuraminidase. **Antiviral Research**, Vol. 81, p. 123-121.
- Hurt, A.C., Selleck, P., Komadina, N., Shaw, R., Brown, L., and Barr, I.G., 2006. Susceptibility of highly pathogenic A(H5N1) avian influenza viruses to the neuraminidase inhibitors and adamantanes. **Antiviral Research** 73, p. 228-231.
- Ikram, N.K.K., Durrant, J.D., Muchtaridi, M., Zalaludin, A.S., Purwitasari, N., Mohamed, N., Rahim, A.S.A., Chan, K.L., Normi, Y.M., Rahman, N.A., Amaro, R.E., Wahab, H., 2015. A virtual screening approach for identifying plants with anti H5N1 neuraminidase activity. **Journal of Chemical Information and Modeling**, p.1-25.

- Jangwan, J.S., Aquino, R.P., Mencherini, T., Picerno, P., and Singh, R., 2013. Chemical constituents of ethanol extract of leaves and molluscicidal activity of crude extracts of *Vitex trifolia* Linn. **Herba Polonica**, Vol. 59 No. 4, p. 19-32.
- John, K.M.M., Enkhtaivan, G., Ayyanar, M., Jin, K.J, Yeon, J.B., Kim, D.H., 2014. Screening of ethnic medicinal plants of South India against influenza (H1N1) and their antioxidant activity. **Saudi Journal of Biological Science**. Vol. 22 (2), p.191-197.
- Kamps, B.S., Hoffman, C., Preiser, W. Eds. 2006. **Influenza Report 2006**. Paris: Flying Publisher. p. 17-28.
- Kannan, M., Rajendran, P., Vedha, V., Ashok, G., Anuska, S., Chandran, P., and Nair, R., 2012. HIV-1 reverse transcriptase inhibition by *Vitex negundo* L. leaf extract and quantification of flavonoids in relation to anti-HIV activity. **Journal of Cell and Molecular Biology**, 10(2), p. 53-59.
- Katzung, B.G. Eds. 2006. **Basic and Clinical Pharmacology 10<sup>th</sup> edition**. McGraw-Hill.
- Kawaoka, Y., Neumann, G. Eds. 2012. **Influenza virus: Methods and Protocols, Methods in Molecular Biology, Vol. 865**. London: Humana Press. p. 1-7.
- Knipping, K., Garssen, J., and Land, B. V., 2012. An evaluation of the inhibitory effects against rotavirus infection of edible plant extracts. **Virology Journal**, Vol. 9, p. 137.
- Krisnawan, A.H. 2011. Aktivitas antivirus hasil fermentasi *Streptomyces* spp. Terhadap virus influenza pandemic H1N1 2009. **Skripsi**. Fakultas Farmasi Universitas Airlangga, Surabaya.
- Kumar, D., Arya, V., Bhat, Z.A., Khan, N.A., and Prasad, D.N., 2012. The genus *Cratageus*: chemical and pharmacological perspectives. **Brazilian Journal of Pharmacognosy**. Vol. 22, No. 5, p. 1187-1200.

- Laxmikant, K. 2012. *Vitex trifolia* Linn. (Verbenaceae): A Review on pharmacological and biological effects isolated and known potential phytoconstituents of therapeutic importance. **International Journal of Research in Pharmaceutical Science**, Vol. 3(3), p. 441-445.
- Li, A., Wang, W., Xu, W., and Gong, J., 2009. A microplate-based screening assay for neuraminidase inhibitors. **Drug Discov Ther** 3(6): 260-265.
- Li, Y.L., Ma, S.C., Yang, Y.T., Ye, S.M., and But, P.P.H., 2002. Antiviral activities of flavonoids and organic acid from *Trollius chinensis* Bunge. **Journal of Ethnopharmacology**, Vol. 79, p. 365-368.
- Liu, A.L., Wang, H.D., Lee, S.M.Y., Wang, Y.T., and Du, G.H., 2008. Structure-activity relationship of flavonoids as influenza virus neuraminidase inhibitors and their in vitro anti-viral activities. **Bioorganic & Medicinal Chemistry** Vol. 16, p. 7141-7147.
- Mary, R.N.I., Meenashree, B., Vasanthi, V.J., 2014. Screening of antibacterial activity and qualitative and quantitative analysis of phytochemicals in *Vitex trifolia*. **International Journal of Current Microbiology and Applied Sciences**, Vol. 3 No. 5, p. 425-431.
- Meena, A.K., Niranjan, U.S., Rao, M.M., Padhi, M.M., and Babu, R., 2011. A review of the important chemical constituents and medicinal uses of *Vitex* genus. **Asian Journal of Traditional Medicines**, Vol. 6(2), p.54-60.
- Mohamed, M.A., Abdou, A.M., Hamed, M.M., and Saad A.M., 2012. Characterization of bioactive phytochemical from the leaves of *Vitex trifolia*. **International Journal of Pharmaceutical Applications**, Vol.3(4), p. 419-428.
- Murtini, S., Murwani, R., Satrija, F., and Malole, M.B.M., 2006. Penerapan rute dan dosis inokulasi pada telur ayam berembrio sebagai media uji khasiat ekstrak benalu teh (*Scurrula oortiana*). **JITV** Vol. 11 No. 2, p. 137-143.

- Murugan, M., dan Mohan, V.R., 2012. Efficacy of different solvent extract of *Vitex trifolia* L. and *Aristolochia indica* L. for potential antibacterial activity. **Science Research Reporter** Vol.2, No. 1, p. 110-114.
- Mustarichie, R., Ramdhani, D., Saptarini, N.M., Supriyatna and Subarnas, A., 2013. Determination of the active chemical compound in the stem bark of *Vitex trifolia* Linn. **Scholars Academic Journal of Pharmacy**, Vol. 2(2), p. 36-40.
- Özkay, Ü.D., and Can, Ö.D., 2013. Anti-nociceptive effect of vitexin mediated by the opioid system in mice. **Pharmacology, Biochemistry and Behavior**, Vol. 109, p.23-30.
- Padmalatha, K., Jayaram, K., Raju, N.L., Prasad, M.N.V., Arora, R., 2009. Ethnopharmacological and biotechnological significance of *Vitex*. **Bioremediation, Biodiversity and Bioavailability**, 3(1), p. 6-14.
- Phani, K. and Kumar, A.R., 2014. Toxicity studies of combined extracts of *Vitex leucoxydon*, *Vitex negundo* and *Vitex trifolia*. **Journal of Chemical and Pharmaceutical Science**, Vol.7(1), p. 54-58.
- Potier, M., Mameli, L., Bélisle, M., Dallaire, L., and Melançon, S.B., 1979. Fluorometric assay of neuraminidase with a sodium (4-methylumbelliferyl- $\alpha$ -D-N-acetylneuraminate) substrate. **Analytical Biochemistry** 94, p. 287-296.
- Radji, M. 2006. Avian Influenza A (H5N1): Patogenesis dan pencegahan pada manusia. **Majalah Ilmu Kefarmasian**, Vol. 3 No. 2, p. 55-65.
- Rani, A. and Sharma, A., 2013. The genus *Vitex*: A review. **Pharmacognosy Reviews**, Vol. 7(14), p. 188-198.
- Sfakianos, J.N. 2006. **Deadly Disease and Epidemics Avian Flu**. New York: Infobase Publishing. p. 11-14.
- Steenis, C.G.G.J. Van. 2008. **Flora**. Jakarta: Pradnya Paramita.

- Stiver, H.G. 2007. Use of vaccines and antiviral drugs in the next influenza pandemic. **BC Medical Journal**, Vol. 49, No.5, p. 249-253.
- Syahdi, R.R., Mun'im, A., Suhartanto, H., and Yanuar, A., 2012. Virtual screening of Indonesian herbal database as HIV-1 reverse transcriptase inhibitor. **Bioinformation**, 8(24), p. 1206-1210.
- Syamsuhidayat, S.S., Hutapea, J.R., 1991. **Inventaris Tanaman Obat Indonesia I**. Jakarta: Departemen Kesehatan RI, Badan Penelitian dan Pengembangan Kesehatan.
- Tong, S., Zhu, X., Li, Y., Shi, M., Zhang, J., Bourgeois, M., Yang, H., Chen, X., Recuenco, S., Gomez, J., Chen, L.M., Johnson, A., Tao, Y., Dreyfus, C., Yu, W., McBride, R., Carney, P.J., Gilbert, A.T., Chang, J., Guo, Z., Davis, C.T., Paulson, J.C., Stevens, J., Rupprecht, C.E., Holmes, E.C., Wilson, I.A., and Donis, R.O., 2013. New world bets harbor diverse influenza A viruses. **PLOS Pathogens**, Vol. 9(10), p. 1-12.
- Untari, T., Widyarini, S., and Wibowo, M.H., 2012. Aktivitas Antiviral Minyak Atsiri Jahe Merah terhadap Virus Flu Burung. **Jurnal Veteriner**, Vol. 13 No. 3, p. 309-312.
- Vrijnsen, R., Everaert, L., and Boeye, A., 1988. Antiviral activity of flavones and potentiation by ascorbate. **J. Gen. Virol.** Vol. 69, p. 1749-1751.
- Wang, G.W., Hu, W.T., Huang, B.K., and Qin, L.P., 2011. *Illicium verum*: A review on its botany, traditional use, chemistry and pharmacology. **Journal of Ethnopharmacology** Vol. 136, p. 10-20.
- Wang, J.X., Zhou, J.Y., Yang, Q.W., Chen, Y., Li, X., Piao, Y.A., and Li, H.Y., 2008. An improved embryonated chicken egg model for the evaluation of antiviral drugs against influenza A virus. **Journal of Virological Methods** 153, p. 218-222.



- World Health Organization. 2002. WHO Animal Influenza Manual. Department of Communicable Disease Surveillance and Response. Avenue Appia: WHO Press.
- World Health Organization. 2006. WHO Rapid Advice Guidelines on pharmacological management of humans infected with avian influenza A (H5N1) virus. Avenue Appia: WHO Press.
- World Health Organization. 2011. Manual for the laboratory diagnosis and virological surveillance of influenza. WHO Global Influenza Surveillance Network. Avenue Appia: WHO Press.
- World Health Organization. 2014. Antigenic and genetic characteristics of zoonotic influenza viruses and development of candidate vaccine viruses for pandemic preparedness.
- World Health Organization. 2015. Cumulative number of confirmed human cases for avian influenza A(H5N1) reported to WHO, 2003-2015.
- Yuan, M., Wang, R.F., Liu, L.J., Yang, X., Peng, Y.S., Sun, Z.X., 2013. Contribution evaluation of the floral parts to orientin and vitexin concentration in the flowers of *Trollius chinensis*. **Chinese Journal of Natural Medicine**, Vol. 11(6), p. 699-704.
- Yuan, R., Cui, J., Zhang, S., Cao, L., Liu, X., Kang, Y., Song, Y., Gong, L., Jiao, P., and Liao, M., 2014. Pathogenicity and transmission of H5N1 avian influenza viruses in different birds. **Veterinary Microbiology**, 168, p. 50-59.