

## REFERENCES

1. Delves JP, Roitt IM. The Immune System, First of Two Parts. *N Engl J Med.* 2000; 343(1):37-49.
2. Mosser DM, Edwards JP. Exploring the full spectrum of macrophage activation. *Nat Rev Immunol.* 2008; 8:958-69
3. Medzhitov R, Janeway C. Innate Immunity. *N Engl J Med.* 2000; 343(5):338-44.
4. O'Neill LAJ, Bowie AG. Sensing and Signalling in Antiviral Innate Immunity. *Curr Biol.* 2010; 20:328-33
5. Aderem A, Underhill DM. Mechanisms of Phagocytosis in Macrophages. *Annu Rev Immunol.* 1999; 17:593-623
6. Fang FC. Antimicrobial Reactive Oxygen and Nitrogen Species Concepts and Controversies. *Nat Rev Microbiol.* 2004; 2:820-32
7. Flannagan RS, Cosio G, Grinstein S. Antimicrobial mechanisms of phagocytes and bacterial evasion strategies. *Nat Rev Microbiol.* 2009; 7: 355-66
8. Ghufron M, Soesatyo M, Haryana SM, Sismindari. The effect of *Mahkota Dewa (Phaleria macrocarpa (Scheff) Boerl)* leaf etanolic extract on splenic natural killer 1.1 cells activity. *Berkala Ilmu Kedokteran.* 2008; 40(3):109-18.
9. Budijitno S. Peran Interferon Gamma, Perforin, Granzim, Terhadap Apoptosis Sel Kanker Payudara Yang Mendapat Neoadjuvan Kemoterapi

- Dan Ekstrak *Phaleria macrocarpa* [Dissertation]. Semarang (Indonesia): Universitas Diponegoro; 2011.
10. Nworu CS, Akah PA, Okoye FBC, Esimone CO. Aqueous extract of *Phyllanthus niruri* enhances the phenotypic and functional maturation of bone marrow-derived dendritic cells and their antigen-presentation function. *Immunopharmacol Immunotoxicol*. 2010; 32(3):393-40.
  11. Maat S. *Phyllanthus niruri* L sebagai immunostimulator mencit. [Dissertation]. Surabaya (Indonesia): Airlangga University; 1996.
  12. Immunomodulator, benefits and dangers. Seminar Immunomodulator dan Pengembangannya; 2010; Semarang (Indonesia): Maat S; 2010.
  13. Sawitri E. Pengaruh Ekstrak *Phyllanthus niruri* terhadap Kanker Kolon Tikus Spraguedawley Yang Diinduksi 1.2-dimetilhidrazin [Dissertation]. Semarang (Indonesia): Universitas Diponegoro; 2012.
  14. Immunostimulators [Internet]. Bethesda: National of Library of Medicine; 2011 [cited March 6, 2013]. Available from: [http://www.nlm.nih.gov/cgi/mesh/2011/MB\\_cgi?mode=&term=Immunostimulants](http://www.nlm.nih.gov/cgi/mesh/2011/MB_cgi?mode=&term=Immunostimulants)
  15. Pepys MB, Hirschfield GM. C-reactive protein: a critical update. *J Clin Invest*. 2003; 111:1805-12.
  16. Murray PJ, Wynn TA. Protective and pathogenic functions of macrophage subsets. *Nat Rev Immunol*. 2011; 11:723-37.
  17. Delves PJ, Roitt IM. The Immune System, Second of Two Parts. *N Engl J Med*. 2000; 343(2):108-17

18. Mosser DM, Edwards JP. Exploring the full spectrum of macrophage activation. *Nat Rev Immunol.* 2008; 8:958-6
19. Fraser IP, Koziel H, Ezekowitz RAB. The serum mannose-binding protein and the macrophage mannose receptor are pattern recognition receptors that link innate and adaptive immunity. *Semin Immunol.* 1998; 10:363-72.
20. Aderem A, Underhill DM. Mechanisms of phagocytosis in macrophages. *Annu Rev Immunol.* 1999; 17:593-623.
21. Middleton E Jr, Kandaswami C. Effects of flavonoids on immune and inflammatory cells functions. *Biochem Pharmacol.* 1992; 43(6):1167-79.
22. Nair MP, Mahajan S, Reynolds JL, Aalinkeel R, Nair H, Schwartz SA et al. The Flavonoid Quercetin Inhibits Proinflammatory Cytokine (Tumor Necrosis Factor Alpha) Gene Expression in Normal Peripheral Blood Mononuclear Cells via Modulation of the NF- $\kappa$ B System. *Clin and Vacc Immunol.* 2006; 13:319-28
23. Hendra R, Ahmad S, Sukari A, Shukor MY, Oskoueian E. Flavonoid Analyses and Antimicrobial Activity of Various of *Phaleria macrocarpa* (Schell.) Boerl Fruit. *Int. J Mol Sci.* 2011; (12):3422-31.
24. Bagalkotkar G, Sagineedu SR, Saad MS, Stanslas J. Phytochemical from *Phyllanthus niruri* Linnaeus and their pharmacological properties: a review. *Journal of Pharmacy and Pharmacology.* 2006; 58(12):1559-70.
25. Tjandrawinata RR, Maat S, Noviamy D. Effect of standardized *Phyllanthus niruri* L. extract on changes in immunologic parameters. *Dexa Medica J.* 2005 (6): 367-71.

26. Thyagarajan SP, Jayaram S, Valliammai T, Madnagopalan N, Pal VG, Jayaraman K. *Phyllanthus amarus* and hepatitis B. *The Lancet*. 1990; 336:949-50.
27. Akrom, Mustofa, Astuti I. The effect of the administration of Meniran (*Phyllanthus niruri* L.) towards the macrophage phagocytosis activity of swiss mice infected by *Plasmodium berghei*. *Sains Kesehatan*. 2005; 18(3):411-25.
28. Sriningsih, Wibowo AE. Efek imunostimulan Ekstrak Meniran (*Phyllanthus niruri* L) Secara In Vitro pada Tikus. *Jurnal Bahan Alam Indonesia*. 2009; 7(1):15-18.
29. Sadelain M, Riviere I, Brentjens R. Targeting tumours with genetically enhanced T lymphocytes. *Nat Rev Canc*. 2003. 3:35-45
30. World Health Organization. General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine [homepage on the internet]. 2009 [updated 2009 Dec 9; cited 2012]. Available from: <http://apps.who.int/medicinedocs/en/d/Jwhozip42e/11.3.html>
31. Coligan JE et al. *Current Protocols in Immunology*. Vol-2 New York-Singapore. A John Willey & Sons Inc 2000. p.14.6.2-3
32. Suhirman S, Winarti C. Prospek dan Fungsi Tanaman Obat Sebagai Immunomodulator. *Buletin Perkembangan Teknologi Tanaman Rempah dan Obat XIX No.2*. 2007

33. Hidalgo M, Sanchez-Moreno C, de Pascual-Teresa S. Flavonoid-flavonoid interaction and its effect on their antioxidant activity. *Science-Direct*. 2010; 171(1):691-6
34. Weng Z, Zhang B, Asadi S, Sismanopoulos, Butcher A, Fu X, et al. Quercetin is more effective than cromolyn in blocking human mast cell cytokine release and inhibits contact dermatitis and photosensitivity in humans. *PloS One*. 2012; 7(3):1-10
35. Marrack P, Scott-Browne J, MacLeod MKL. Terminating the Immune Response. *Immunol Rev*. 2010; 236:5-10.
36. Mills KHG. Regulatory T cells: friend or foe in immunity. *Nat Rev Immunol*. 2004; 4(11):841-55.
37. Hendrich AB. Flavonoid-membrane interactions: possible consequences for biological effects of some polyphenolic compounds. *Acta Pharmacol Sin*. 2007; 28:296-306.