

DAFTAR PUSTAKA

- Abbas, A.K., Lichtman, A.H., Pillai, S., 2010, *Cellular and Molecular Immunology* 6th edition, Saunders Elsevier.
- Abbas, A.K., Lichtman, A.H., dan Pillai, S., 2016, *Basic Immunology Functions and Disorders of the Immune System*, edisi 5, 231 – 247, Elsevier, Missouri.
- Abbe, N.J.V., Nicholas, P., Boon, E., 1974, Exaggerated Exposure in Topical Irritancy and Sensitization Testing, *Journal of the Society of Cosmetic Chemist*, **26**, 173 -187.
- Abed, K.F., 2007, Antimicrobial Activity of Essential Oils of Some Medicinal Plants from Saudi Arabia, Saudi, *Journal Of Biological Sciences.*, **14**, 53 – 60.
- Abramson, S., 2015, Delayed Hypersensitivity Reactions, <https://emedicine.medscape.com/article/136118-overview>, 8 April 2018.
- Ahmed, S.S., Wang, X.N., Fielding, M., Kerry, A., Dickinson, I., Munuswamy, R., Kimber, I., Dickinson, A.M., 2015, An in vitro human skin test for assessing sensitization potential, *Journal of Applied Toxicology*, **36**, 669 – 684.
- Al – Abd, N.M., Nor, Z.M., Mansor, M., Azhar, F., Hasan, M.S., Kassim, M., 2015, Antioxidant, antibacterial activity, and phytochemical characterization of Melaleuca cajuputi extract, *BMC Complementary and Alternative Medicine*, **15**, 385.
- Aminullah, 2010, Formulasi Minyak – Minyak Menguap Menjadi Sediaan Balsem Counterirritant, Prosiding Seminar Nasional, Fakultas Farmasi Universitas Hasanuddin Makassar.
- Anonim, 2013a, *Assessment report on Melaleuca alternifolia (Maiden and Betch) Cheel, M. linariifolia Smith, M. dissitiflora F. Mueller and/or other species of Melaleuca, aetheroleum*, European Medicines Agency, London.
- Anonim, 2013b, *Standard for Olive Oils and Olive Pomace Oil*, Food and Agriculture Organization of United Nations, Roma.
- Anonim, 2015, Paling Indonesia : Minyak Telon, https://www.kompasiana.com/bubup/paling-indonesia-minyak-telon_5500c5daa333115372512054, 14 Januari 2018.

- Anonim, 2017a, *Riset Penggunaan Minyak Telon*, <http://www.tribunnews.com/lifestyle/2017/08/04/riset-penggunaan-minyak-telon>, 22 November 2017.
- Anonim, 2017b, *How Your Baby's Immune System Develops*, <https://www.pregnancybirthbaby.org.au/how-your-babys-immune-system-develops>, 13 Januari 2018.
- Anonim, 2017c, *The Benefits of Using Natural Skin Care Products for Your Baby*, <https://www.sproutmarket.com.au/blog/parenthood/the-benefits-of-using-natural-skin-care-products-for-your-baby.html>, 13 Januari 2018.
- Anonim, 2018, *GHS Classification Criteria for Skin Sensitization*, http://www.chemsafetypro.com/Topics/GHS/GHS_classification_skin_sensitizer_LLNA_Guinea_pig_maximisation_test_Buehler.html, 19 April 2018.
- Asin, M., 2008, *Procedures in Cosmetic Dermatology (In Spanish)*, Elsevier, Madrid.
- Axe, 2018, *Top 10 Eucalyptus Oil Uses and Benefits*, <https://draxe.com/eucalyptus-oil-uses-benefits/>, 14 Januari 2018.
- Bakhr, 1992, *Herbs That Heal Natural Remedies for Good Health*, Saurabh Printers, Delhi.
- Ball, N., Cagen, S., Carillo, J., Certa, H., Eigler, D., Emter, R., Faulhammer, F., Garcia, C., Graham, C., Haux, C., Kolle, S.N., Kreilling, R., Natsch, A., and Mehling, A., 2011, *Evaluating The Sensitization Potential Of Surfactants : Integrating Data From The Local Lymph Node Assay, Guinea Pig Maximization Test, and In Vitro Methods in A Weight Of Evidence Approach*, *Regulatory Toxicology and Pharmacology*, **60**, 389 – 400.
- Basketter, D.A., Scholes, E.W., Kimber, I., Botham, P.A., Hilton, J., Miller, K., Robbins, M.C., Harrison, P.T.C., and Waite, S.J., 1991, *Interlaboratory Evaluation of the Local Lymph Node Assay with 25 Chemicals and Comparison with Guinea Pig Test Data*, *Journal of Toxicology Methods*, **1**, 30 – 43.
- Basketter, D.A., Scholes, E.W., Wahlkvist, H., and Montelius, J., 1995a, *An evaluation of the suitability of benzocaine as a positive control skin sensitizer*, *Journal of Contact Dermatitis*, **33**, 28–32.
- Basketter, D.A., Scholes, E.W., Chamberlain, M., 1995b, *An Alternative Strategy to the Use of Guinea Pigs for The Identification of Skin Sensitization Hazard*, *Journal Food Chemical Toxicology*, **33** (12), 1051 – 1056.

- Basketter, D.A., Gerberick, G.F., Kimber I., 1997, Strategies for Identifying False Positive Responses in Predictive Skin Sensitization Tests, *Food and Chemical Toxicology*, **36**, 327 – 333.
- Basketter, D., Steiling, W., Berthold, K., Butler, M., Garrigue, J.L., 2000, Skin Sensitization Testing – New Perspectives and Recommendations, *Journal of Food and Chemical Toxicology*, **39**, 293 – 301.
- Basketter, D., Takao, A., Silvia, C., Bruno, H., Joanna, J., Joop de Knecht, Robert, L., Irene, M., Anette, M., Dirk, P., Emiel, R., Laura H., R., Winfried, S., Silvia, T., Andrew, W., 2015, Alternatives for Skin Sensitization : Hazard Identification and Potency Categorisation : Report from an EPAA/CEFIC LRI/Cosmetics Europe cross sector workshop, *Journal Regulatory Toxicology and Pharmacology*, **73**, 660 – 666.
- Basketter, D., Ball, N., Cagen, S., Carlos, J., Certa, H., Eigler, D., Garcia, C., HaraldEsch, Graham, C., Haux, C., Kreiling, R., Mehling, A., 2009, Application of a weight of evidence approach to assessing discordant sensitization datasets: implications for REACH. Regul. Toxicol. Pharmacol. **55**, 90–96.
- Batubara, I., Suparto, I.H., Rakhmatika, F.A., 2016, Sineol dalam Minyak Kayu Putih sebagai Pelangsing Aromaterapi, *Jurnal Jamu Indonesia*, **1** (3), 12 – 17.
- Bernath, A., Nemeth, E., Kattaa, Hethelyi, E., 1996, Morphological and Chemical Evaluation of Fennel (*Foeniculum vulgare* Mill), Populations of Different Origin, <https://www.researchgate.net/publication/241714014>, 6 September 2017.
- Biedermann, T., Kneilling, M., Mailhammer, R., Maier, K., Sander, C.A., Kollias, G., Kunkel, S.L., Hultner, L., Rocken, M., 2000, Mast cells control neutrophil recruitment during T cell-mediated delayed-type hypersensitivity reactions through tumor necrosis factor and macrophage inflammatory protein, *Journal of Experimental Medicine*, **192**(10):1441–1452.
- BPOM, 2014, Sasaran Strategis, <http://www.pom.go.id/new/view/direct/strategic>, 18 Februari 2018.
- Branco, N., Lee, I., Zhai, H., Maibach, H.I., 2005, Long Term Repetitive Sodium Lauryl Sulfate Induced Irritation Of The Skin : An *In Vivo* Study, *Contact Dermatitis*, **53**, 278 – 284.
- Brisaert, M., Plaizier-Vercammen, J.A., 2007, Investigation on the Photostability of Tretinoin in Creams, *International Journal of Pharmacy*, **334**, 56 -61.

- Brophy, J.J. and Doran, J.C., 1996, Essential Oils of Tropical *Asteromyrtus*, *Callistemon* and *Melaleuca* Species: *In Search of Interesting Oils with Commercial Potential*, ACIAR Monograph No. 40.
- Buehler, E.V., 1965, Delayed Contact Hypersensitivity in the Guinea Pig, *Archives of Dermatology*, **91**, 171 – 177.
- Buehler, E.V., 1996, Nonspecific Hypersensitivity : False Positive Responses with the Use of Freund's Complete Adjuvant, *Contact Dermatitis*, **34**, 111-114.
- Callender, J.T., dan James, P.J., 2011, Insecticidal and Repellent Effects of Tea Tree (*Melaleuca alternifolia*) Oil Against *Lucilia cuprina*, *Journal Veterinary Parasitology*, **184**, 271 – 278.
- Cantore, P.L., Lacobelli, N.S., Marco, A.D., Capasso, F., Senatore, F., 2004, Antibacterial Activity of *Coriandrum sativum* L. And *Foeniculum vulgare* Miller Var. *Vulgare* (Miller), Essential Oils. *Journal of Agricultural and Food Chemistry*, **52**, 7682 – 7866.
- CDRH, 2016, Evaluation and testing within a risk management process, US Department of Health and Human Services Food and Drug Administration Center for Devices and Radiological Health.
- Chadwick, D., 1998, Rewards of treating decubitus ulcers, *International Journal of Pharmaceutical Compound*, **4**, 282–283.
- Chang, R.K., Andre, R., Robert, L., Lawrence, Y., 2013, Generic Development of Topical Dermatologic Products: Formulation Development, Process Development, and Testing of Topical Dermatologic Products, *The AAPS Journal*, **15** (1), 41–52.
- Choi, E.M., Hwang, J.K., 2004, Anti Inflammatory, Analgesic and Antioxidant Activities of The Fruit of *Foeniculum vulgare*, *Journal of Fitoterapia*, **75**, 557 – 565.
- Crabb, E.D., 1958, Effect of mast cell products on capillary permeability, *Ecology and Evolutionary Biology*, **12**, 1-35.
- Cumberbatch, M., Kimber, I., 1995, Tumour necrosis factor-alpha is required for accumulation of dendritic cells in draining lymph nodes and for optimal contact sensitization, *Immunology*, **84**(1), 31–35.
- Cumberbatch, M., Dearman, R.J., Kimber, I., 1997, Interleukin 1 beta and the stimulation of Langerhans cell migration: comparisons with tumour necrosis factor alpha, *Archives of Dermatological Research*, **289**(5), 277–284.

- Del Arco, J., 1994, Pharmaceutical Compounding of Medicines (in Spanish), Colegio Oficial de Farmaceuticos de Vizcaya, Spain, halaman 50.
- Diazz – Maroto, M.C., Hidalgo, I.J.D., Saa nchez-Palomo, E., Pearez Coello, M.S., 2005, Volatile Components and Key Odorants of Fennel (*Foeniculum vulgare* Mill.) and Thyme (*Thymus vulgaris* L.) Oil Extracts Obtained by Simultaneous Distillation – extraction and Supercritical Fluid Extraction, *Journal of Agricultural and Food Chemistry*, **53**, 5385 – 5389.
- Diazz Maroto, M.C., Pea rez- Coello, M.S., Esteban, J., Sanz, J., 2006, Comparison of The Volatile Composition of Wild Fennel Samples (*Foeniculum vulgare* Mill.) from Central Spain, *Journal of Agricultural and Food Chemistry*, **54**, 6814 – 6818.
- Dilulio, N.A., Xu, H., Fairchild, R.L., 1996, Diversion of CD4+T Cell Development from Regulatory T Helper to Effector T Helper Cells Alters The Contact Hypersensitivity Response, *European Journal of Immunology*, **26**, 2606.
- Drake, D.R., Brodgen, K.A., Dawson, D.V., Wertz, P.W., 2008, Thematic Review Series : Skin Lipids, Antimicrobial Lipids at The Skin Surface, *The Journal of Lipid Research*, **49**, 4 – 11.
- Dudeck, A., Dudeck, J., Scholten, J., Petzold, A., Surianarayanan, S., Kohler, A., Peschke, K., Vohringer, D., Waskow, C., Krieg, T., Muller, W., Waisman, A., Hartmann, K., Gunzer, M., Roers, A., 2011, Mast cells are key promoters of contact allergy that mediate the adjuvant effects of haptens, *Immunity*, **34** (6), 973–984.
- ECVAM (European Centre for the Validation of Alternative Methods), 2008, Murine Local Lymph Node Assay (LLNA) Performance Standards, European Commission, Institute for Health and Consumer Protection, Ispra, Italia.
- Efruan, G.K., Martosupono, M., Rondonuwu, F.S., 2016, Review : Bioaktivitas Senyawa 1,8 Sineol pada Minyak Atsiri, Seminar Nasional Pendidikan dan Saintek, Universitas Kristen Satya Wacana Salatiga.
- Einslein, K., Gombar, V.K., Blake, B.W., Maibach, H.I., Hostynek, J.J., Sigman, C.C., Bagheri, D., 1997, A Quantitative Structure Toxicity Relationships Model for The Dermal Sensitization Guinea Pig Maximization Assay, *Food and Chemical Toxicology*, **35**, 1091 – 1098.
- Ereatux, L.P., 1940, The Cosmetic Eye – a Periocular Dermatitis, *Canadian Medical Association Journal*, **42**, 364 – 367.

- Fairley, J.A., Rasmussen, J.E., 1983, Comparison of Stratum Corneum Thickness in Children and Adults, *Journal of The American Academy of Dermatology*, **8**, 652 – 654.
- Fariweather, D., Frisancho-Kiss, S., Rose, N.R., 2015, Viruses as Adjuvants for Autoimmunity Evidence from Coxsackievirus Induced Myocarditis, *Reviews in Medical Virology*, **15** (1), 17 -27.
- FDA, 2014, Letter Responding to Health Claim Petition dated August 28, 2003 : Monounsaturated Fatty Acids from Olive Oil and Coronary Heart Disease (Docket No 2003Q-0559), <https://www.fda.gov/food/ingredientspackaginglabeling/labelingnutrition/ucm072963.htm>, 8 September 2017.
- Fehri, B., Aiache, J.M., Memmi, A., Korbi, S., Yacoubi, M.T., Mrad, S., Lamaison, J.L., 1994, Hypotension, Hypoglycemia and Hypouricemia Recorded After Repeated Administration of Aqueous Leaf Extract of *Olea europaea* L., *Journal de Pharmacie de Belgique*, **49**, 101 – 108.
- Fluhr, J.W., Darlenski, R., Lachmann, N., 2012, Infant Epidermal Skin Physiology, Adaptation After Birth, *British Journal Of Dermatology*, **166**, 296 – 302.
- Fox, S.J., dan Park, M.A., 2014, Penicillin Skin Testing is A Safe and Effective Tool for Evaluating Penicillin Allergy in The Pediatric Population, *Journal of Allergy and Clinical Immunology*, **2**, 439 – 444.
- Freeman, S., Rubel, D., dan Southwell, I.A., 1997, Skin Irritancy of Tea Tree Oil, *Journal of Essential Oil Research*, **97**, 47 – 52.
- Freund, J., 1956, The Mode of Action of Immunologic Adjuvants, *Advance Tuberculosis Resistance*, **7**, 130.
- Friedman Z, 1980, Essential Fatty Acids Revisited, *American Journal of Disease of Children*, **134**, 397 – 408.
- Fukuda, S., Midoro, K., Kamei, T., Gyoten, M., Kawano, Y., Ashida, Y., dan Nagaya, H., 2002, Inhibition of Allergic Dermal Inflammation by the Novel Imidazopyridazine Derivative TAK-427 in a Guinea Pig Experimental Model of Eczema, *The Journal of Pharmacology and Experimental Therapeutics*, **303** (3), 1283 – 1290.
- Gallo, R.L., Nakatsuji, T., 2011, Microbial Symbiosis with The Innate Immune Defense System of The Skin, *Journal of Investigative Dermatology*, **131**, 1974 – 1980.

- Gaunt, I. F., dan Harper, K. H., 1964, The potential irritancy to the rabbit eye of certain commercially available shampoos, *Journal of the Society of Cosmetic*, **15**, 209.
- Glaister., 1986, Principles of Toxicological Pathology, Taylor & Francis, London.
- Grabbe, S., Steinert, M., Mahnke, K., Schwartz, A., Luger, T.A., Schwarz, T., 1996, Dissection of antigenic and irritative effects of epicutaneously applied haptens in mice, Evidence that not the antigenic component but nonspecific proinflammatory effects of haptens determine the concentration-dependent elicitation of allergic contact dermatitis, *Journal of Clinical Investigation*, **98** (5), 1158–1164.
- Grabbe, S., dan Schwarz, T., 1998, Immunoregulatory mechanisms involved in elicitation of allergic contact hypersensitivity, *Immunology Today*, **19** (1), 37–44.
- Greenberg, L.A., Lester, D., Haggard, H.W., 1954, *Handbook of Cosmetic Materials*, Interscience Publishers, New York.
- Greive, K.A., Staton, J.A., Miller, P.F., Peters, B.A., Oppenheim, V.M.J., 2010, Development of Melaleuca Oils as Effective Natural Based Personal Insect Repellents, *Australian Journal of Entomology*, **49**, 40 - 48.
- Grolnick, M., 1960, *In Fundamentals of Modern Allergy*, 319, McGraw-Hill, New York.
- Guimaraes, L.E., Baker, B., Perricone, C., Shoenfeld, Y., 2015, Vaccines, adjuvants and autoimmunity, *Pharmacological Research*, **100**, 190 – 209.
- He, D., Wu, L., Kim, H.K., Li, H., Elmetts, C.A., Xu, H., 2006, CD8⁺ IL-17-producing T cells are important in effector functions for the elicitation of contact hypersensitivity responses, *The Journal of Immunology*, **177** (10), 6852–6858.
- He, D., Wu, L., Kim, H.K., Li, H., Elmetts, C.A., Xu, H., 2009, IL-17 and IFN- γ mediate the elicitation of contact hypersensitivity responses by different mechanisms and both are required for optimal responses. *The Journal of Immunology*, **183** (2), 1463–1470.
- Henriettes, 2013, *Practical Herbs 2*, Yrtit Ja Yrttiterapia Henriette Kress, Jerman.
- Hodgson, E., 2010, *A Textbook of Modern Toxicology*, 4th edition, John Wiley & Sons, Canada.

- Honda, T., Miyachi, Y., Kabashima, K., 2011a, Regulatory T cells in cutaneous immune responses, *Journal of Dermatological Science*, **63** (2), 75–82.
- Honda, T., Otsuka, A., Tanizaki, H., Minegaki, Y., Nagao, K., Waldmann, H., Tomura, M., Hori, S., Miyachi, Y., Kabashima, K., 2011b, Enhanced murine contact hypersensitivity by depletion of endogenous regulatory T cells in the sensitization phase, *Journal of Dermatological Science*, **61** (2), 144–147.
- Ikarashi, Y., Momma, J., Tsuchiya, T., Nakamura, A., 1996, Evaluation of Skin Sensitization Potential of Nickel, Chromium, Titanium, dan Zirconium Salts Using Guinea Pigs and Mice, *Biomaterials*, **17**, 2103-2108.
- Isni, Assyatul., 2000, Formulasi Sediaan Minyak Kayu Putih dalam Beberapa Basis Salep, Skripsi, Fakultas Farmasi Universitas Airlangga, Surabaya.
- James, W.D., Berger, T.G., dan Elston, D.M., 2006, *Andrews' diseases of the skin: Clinical dermatology*, 10th ed, Elsevier, Philadelphia.
- Jensen-Jarolim, E., Leitner, A., Hirschwahr, R., Kraet, D., Wuthrich, B., Scheiner, O., Graf, J., Ebner, C., 1997, Characterization of Allergens in Apiaceae Spices : Anise, Fennel, Coriander and Cumin, *Clinical and Experimental Allergy*, **27** (11), 1299 – 1306.
- Juliano, C., Cossu, M., Alamanni, M.C., Piu, L., 2005, Antioxidant Activity of Gamma – Oryzanol : Mechanism of Action and Its Effect on Oxidative Stability of Pharmaceutical Oils, *International Journal Of Pharmaceutics*, **299**, 146 – 154.
- Junqueira, 2007, *Basic Histology*, Mc Graw Hill Lange, New York.
- Junqueira, L.C., dan Carneiro, J., 2007, *Histologi Dasar*, Penerbit Buku Kedokteran EGC Jakarta.
- Kabashima, K., Sakata, D., Nagamachi, M., Miyachi, Y., Inaba, K., Narumiya, S., 2003, Prostaglandin E2-EP4 signaling initiates skin immune responses by promoting migration and maturation of Langerhans cells, *Natural Medicine*, **9** (6), 744–749.
- Kabashima, K., 2015, *Immunology of The Skin Basic and Clinical Sciences in Skin Immune Responses*, Springer, Jepang.
- Kanitakis, J., 2002, Anatomy, histology and immunohistochemistry of normal human skin, *European Journal of Dermatology*, **12** (4), 390–401.

- Kaur, G.J., Arora, D.S., 2008, In Vitro Antibacterial Activity of Three Plants Belonging to the Family Umbeliferae, *Int. Journal of Antimicrobial Agents*, **31**, 393 – 395.
- Kimber, I., Hilton, J., and Botham, P.A., 1990, Identification of Contact Allergens Using The Murine Local Node Assay : Comparison with The Buehler Occluded Patch Test in Guinea Pigs. *Journal of Applied Toxicology*, **10**, 173-180.
- Kimber, D. A. Basketter , K. Berthold , M. Butler , J.-L. Garrigue L. Lea , C. Newsome , R. Roggeband, W. Steiling , G. Stropp , S. Waterman , C. Wiemann., 2001, Skin Sensitization Testing in Potency and Risk Assessment, *Toxicological Sciences*, 198-208.
- Klaassen, C.D., 2013, *Casarett and Doull's Toxicology The Basic Science of Poisons*, Mc Graw Hill Education, New York, USA.
- Kligman, A.M., Basketter, D.A., 1995, A Critical Commentary and Updating of The Guinea Pig Maximization Test, *Contact Dermatitis*, **32**, 129 – 134.
- Kligman, A. M., 1966, The identification of contact allergens by human assay : III The maximization test A procedure for screening and rating contact sensitizers, *Journal of Investigative Dermatology*, **47**, 393.
- Kligman, A.M., 1972, Reports to RIFM, 14 March and 13 October.
- Kligman, A.M., dan Epstein, W., 1975, Updating the Maximization Test for Identifying Contact Allergens, *Contact Dermatitis*, **1**, 231.
- Ko, G.M., Rosenkranz, A., Bertoncini, C.R.A., Jurkiewicz, N.H., Franco, M.G., Jurkiewicz, A., 2010, Methods of acute biological assays in guinea-pigs for the study of toxicity and innocuity of drugs and chemicals, *Brazilian Journal of Pharmaceutical Sciences*, **46** (2), 251 - 263.
- Kozic, D., Kolovrat, S.K., Laskaj, R., Jukic, V., Vrkic, N., dan Begovac, J., 2015, Effect of Extra Virgin Olive Oil on Biomarkers of Inflammation in HIV-Infected Patients: A Randomized, Crossover, Controlled Clinical Trial, *Medical Science Monitor*, **21**, 2406 – 2413.
- Kwon, Y.S., Choi, W.G., Kim, W.J., Kim, W.K., Kim, M.J., Kang, W.H., Kim, C.M., 2002, Antimicrobial Constituents of *Foeniculum vulgare*, *Archives of Pharmacal Research*, **25**, 154 – 157.
- Lamoreux, M., Sternbach, M., Hsu, T.W., 2003, Erythema Multiforme, *Journal Dermatologic Clinics*, **21**, 196.

- Landsteiner, K., dan Chase, M.W., 1937, Studies on The Sensitization of Animals with Simple Chemical Compounds : IV. Anaphilaxis Induced by Picryl Chloride and 2:4 Dinitrochlorobenzene, *The Journal of Experimental Medicine*, **66**, 337.
- Landsteiner, K., dan Chase, M.W., 1940, Studies on The Sensitization of Animals with Simple Chemical Compounds : VII Skin Sensitization by Intraperitoneal Injections, *Ibid*, 71, 237.
- Landsteiner, K., dan Chase, M.W., 1941, Studies on The Sensitization of Animals with Simple Chemical Compounds : IX. Skin Sensitization Induced by Injection of Conjugates, *Journal of Experimental Medicine*, **73** (3), 431 – 438.
- Lee, E.J., dan Rothwell, J.T., 2010, Histological Changes to The Skin Of Merino Sheep Following Deep Dermal and Subcutaneous Injections Of Sodium Lauryl Sulfat, *Australian Veterinary Journal*, **88** (4), 146 – 150.
- Lepoittevin, J.P., Karlberg, A.T., 1994, Interactions of allergenic hydroperoxides with proteins: a radical mechanism, *Chemical Research in Toxicology*, **7** (2), 130–133.
- Lio, Peter., 2018, How Does Infant Skin Differ from Adult Skin?, <https://www.medscape.org/viewarticle/743529>, 14 Januari 2018.
- Loyd, A., 2003, Natural Emollient Oil, *International Journal of Pharmaceutical Compounding*, **7**, 462.
- Lutony, T.L., dan Rahmayati, Y, 1994, *Produksi Dan Perdagangan Minyak Atsiri*, Penerbit Penebar Swadaya, Jakarta.
- Magnusson, B., dan Kligman A.M., 1969, The Identification of Contact Allergen by Animal Assay The Guinea Pig Maximisation Test, *Journal of Investigative Dermatology*, **52**, 268 – 276.
- Magnusson, B. dan Kligman, A.M., 1970, *Allergic Contact Dermatitis in the Guinea Pig*, Springfield, Illinois.
- Magnusson, B., 1980, Identification of Contact Sensitizers by Animal Assay, *American Contact Dermatitis Society*, **6**, 46.
- Mahady, G.B., Pendland, S.L., Stoia, A., Hamill, F.A., Fabricant, D., Dietz, B.M., Chadwick, L.R., 2005, In Vitro Susceptibility of Helicobacter Pylori to botanical Extracts Used Traditionally for The Treatment of Gastrointestinal Disorders, *Phytotherapy Research*, **19**, 988 – 999.

- Manzoor, A.R., Bilal, A.Dar., Shahnawaz, N.S., Bial, A.B., Mushtaq, A.Q., 2012, *Foeniculum vulgare* : A Comprehensive Review of Its Traditional Use, Phtochemistry, Pharmacology, and Safety, *Arabian Journal of Chemistry*, **9**, 1574 – 1583.
- Martin, S.F., Dudda, J.C., Bachtanian, E., Lembo, A., Liller, S., Durr, C., Heimesaat, M.M., Bereswill, S., Fejer, G., Vassileva, R., Jakob, T., Freudenberg, N., Termeer, C.C., Johner, C., Galanos, C., Freudenberg, M.A., 2008, Toll-like receptor and IL-12 signaling control susceptibility to contact hypersensitivity, *Journal of Experimental Medicine*, **205** (9), 2151–2162.
- Martin, S.F., Esser, P.R., Weber, F.C., Jakob, T., Freudenberg, M.A., Schmidt, M., Goebeler, M., 2011, Mechanisms of chemical-induced innate immunity in allergic contact dermatitis, *Allergy*, **66** (9), 1152–1163.
- Martin, A., Rodrigues, L.B., Cesario, F., dkk., 2017, Anti-edematogenic and anti-inflammatory activity of the essential oil from *Croton rhamnifolioides* leaves and its major constituent 1,8-cineole (eucalyptol), *Journal Biomedicine and Pharmacotherapy*, **96**, 384 – 395.
- Marzulli, F.N. dan Maibach, H.I., 1973, Antimicrobials : Experimental Contact Sensitization in Man, *Journal of The Society of Cosmetic Chemists*, **24**, 399.
- Materia Medika Indonesia, 1978, *Foeniculum vulgare* Mill, Jilid II, 36 – 41, Departemen Kesehatan Republik Indonesia, Jakarta.
- Maurer, T.H., Weirich, E.G., Hess, R., 1980, The Optimization Test in The Guinea Pig in Relation to Other Predictive Sensitization Methods, *Journal Toxicology*, **15**, 163 – 171.
- Maurrer, T.H., dan Hess, R., 1989, The Maximisation Test for Skin Sensitization Potential Updating The Standard Protocol and Validation of A Modified Protocol, *Journal of Food Chemistry*, **27**, 807 – 811.
- Maurrer, T.H., Arthur, A., & Bentley, P., 1994, Guinea Pig Contact Sensitization Assays, *Journal Toxicology*, **93**, 47 – 54.
- Maurer, T., 2006, Guinea Pigs in Hypersensitivity Testing, *Methods*, **41**, 48 – 53.
- Meles, D.K., 2010, Peran Uji Praklinik dalam Bidang Farmakologi, Pidato Pengukuhan Jabatan Guru Besar dalam Bidang Farmakologi dan Toksikologi Fakultas Kedokteran Hewan Universitas Airlangga di Surabaya, 18 Desember 2010.

- Menne, T., Veien, N., Sjolín, K.E., Maibach, H.I., 1994, HI : Systemic contact dermatitis, *American Journal Contact Dermatitis*, **5**, 1 – 12.
- Middleton, E., Ellis, E.F., Yunginger, J.W., Reed, C.E., Adkinson, N.F., Busse, W.W., 1998, *In Allegy and Principles, Vols I dan II, 5th edition*, Mosby-Year Book Inc.
- Miller, R.M., 2016, 20 Of The Best Essential Oils for Colds and Relieving The Flu, <https://www.up-nature.com/blogs/news/20-of-the-best-essential-oils-for-colds-and-relieving-the-flu>, 19 Februari 2018.
- Mohsenzadeh, M., 2007, Evaluation of Antibacterial Activity of Selected Iranian Essential Oils Against *Staphylococcus aureus* and *Escherichia coli* in Nutrient Broth Medium, Pak. *Journal of Biology Science*, **10**, 3693 – 3697.
- Momma, J., Kitajima, S., Inoue, T., 1997, The Guinea Pig Skin Sensitization Test Revisited : An Evaluation Formula to Predict Possible Sensitization Levels for Eight Chemicals Used in Household Products, *Toxicology*, **126**, 75 – 82.
- Mori, T., Kabashima, K., Yoshiki, R., Sugita, K., Shiraishi, N., Onoue, A., Kuroda, E., Kobayashi, M., Yamashita, U., Tokura, Y., 2008, Cutaneous hypersensitivities to hapten are controlled by IFN γ -upregulated keratinocyte Th1 chemokines and IFN- γ -downregulated langerhans cell Th2 chemokines, *The Journal of investigative dermatology*, **128** (7), 1719–1727.
- Motoki, Y., Fujita, S., Fujihara, Y., Okada, Y., Nomura, M., 2003, Skin Whitening Effects of Estragole Derivatives, *Journal of Oleo Sciences*, **52**(9), 495 – 498.
- Munoz, M., Lopez-Viota, M., Ruiz, M.A., 2004, New Formulations of Olive Oil and Vitamin E (In Spanish), *Revista Fitoterapia*, **4**, 173 – 174.
- Murdopo, 2014, Menyibak Potensi Pasar Obat Herbal Tradisional, *Warta Ekspor*, **5**, 3 – 9.
- Nakae, S., Komiyama, Y., Nambu, A., Sudo, K., Iwase, M., Homma, I., Sekikawa, K., Asano, M., Iwakura, Y., 2002, Antigen-specific T cell sensitization is impaired in IL-17-deficient mice, causing suppression of allergic cellular and humoral responses, *Immunity*, **17** (3), 375–387.
- Nakae, S., Komiyama, Y., Narumi, S., Sudo, K., Horai, R., Tagawa, Y., Sekikawa, K., Matsushima, K., Asano, M., Iwakura, Y., 2003, IL-1-induced tumor necrosis factor- α elicits inflammatory cell infiltration in the skin by inducing IFN- γ -inducible protein 10 in the elicitation phase of the contact hypersensitivity response, *International Immunology*, **15** (2), 251–260.

- Nigam, P.K., 2008, Adverse Reactions to Cosmetics and Methods of Testing, *Indian J Dermatol Venereol Leprol*, **75** (1), 10 – 17.
- Nikolovski, J., Stamatas, G.N., Kollias, N., 2008, Barrier Function and Water Holding and Transport Properties of Infant Stratum Corneum Are Different From Adult and Continue to Develop Through The First Year of Life, **128**, 1728 – 1736.
- OACU, 2016, Guidelines for the Use of Adjuvants in Research Special Emphasis on Freund's Adjuvant, <https://oacu.oir.nih.gov/sites/default/files/uploads/arac-guidelines/adjuvants.pdf>, 7 April 2018.
- OECD, 1992, OECD Guidelines for Testing of Chemicals, <https://ntp.niehs.nih.gov/iccvam/suppdocs/feddocs/oecd/oecd406.pdf>, 7 April 2018.
- O'Hagan, D.T. dan Valiante, N.M., 2003, Recent Advances in The Discovery and Delivery of Vaccine Adjuvants, *Nature Review*, **2** (9), 727 – 735.
- Opdyke, D.L.J., 1979, Monographs on Fragrance Raw Materials, Pergamon Press, New York.
- Oranges, T., Dini, V., dan Romanelli, M., 2015, Skin Physiology of the Neonate and Infant: Clinical Implications, *Advances in Wound Care*, **4** (10), 587 – 595.
- Otsuka, A., Kubo, M., Honda, T., Egawa, G., Nakajima, S., Tanizaki, H., Kim, B., Matsuoka, S., Watanabe, T., Nakae, S., Miyachi, Y., Kabashima, K., 2011, Requirement of interaction between mast cells and skin dendritic cells to establish contact hypersensitivity, *PLoS One*, **6** (9), 25538.
- Owen, J.A., Punt, J., Stranford, S.A., Jones, P., 2013, *Kuby Immunology 7th edition*, W.H. Freeman and Company, New York.
- Padoan, S.M., Petterson, A., Svensson A., 1990, Olive Oil as A Cause of Contact Allergy in Patients with Venous Eczema, and Occupationally, *Contact Dermatitis*, **23**, 73 – 76.
- Pasare, C. dan Medzhitov, R., 2003, Toll Pathway Dependent Blockade of CD4+ CD25+ T Cell Mediated Suppression by Dendritic Cells, *Science*, **299**, 1033 – 1036.
- Petersen, D., 2014, The Essential Oils of Indonesia, American College of Healthcare Sciences, 5940 SW Hood Avenue, Portland, OR 97239 USA.

- Potts, S.J., Eberhard, D.A., Wharton, K.A., 2015, *Molecular Histopathology and Tissue Biomarkers in Drug and Diagnostic Development*, Humana Press, New York.
- Rangachari, M., dan Kuchroo, V.K., 2013, Using EAE to better Understand Principles of Immune Function and Autoimmune Pathology, *Journal of Autoimmun*, **45**, 31 -39.
- Rather, Manzoor, A., Bilal, A., Dar, S.N., Sofi, Bilal, A., Bhat, M.A., Qurishi, 2012, Foeniculum Vulgare : A Comprehensive Review Of Its Traditional Use, Phytochemistry, Pharmacology, and Safety, *Arabian Journal Of Chemistry*, **9** (2), 1574 – 1583.
- Ritprajak, P., Hashiguchi, M., Azuma, M., 2008, Topical application of cream-emulsified CD86 siRNA ameliorates allergic skin disease by targeting cutaneous dendritic cells, *Molecular Therapy*, **16** (7), 1323–1330.
- Robbins, 2013, *Basic Pathology 9th ed*, 31-72, Elsevier Saunder, Philadelphia.
- Ruberto, G., Baratta, M.T., Deans, S.G., Doman H.J.D., 2000, Antioxidant and Antimicrobial Activity of *Foeniculum vulgare* and *Crithmum maritimum* Essential Oils, *Plant Medicines*, **66**, 687 – 693.
- Ruiz, M.A., Pleguezuelos, M., Munoz, M., Gallardo, V., 2004, Moisturizing Capacity of Aloe Vera Gel in Skin Creams Made with Silicone Based and Olive Oil Based Latex Preparations, *Journal of Applied Cosmetology*, **22**, 25 – 33.
- Ruiz, M.A., Arias, J.L., Gallardo, V., 2010, *Skin Creams Made with Olive Oil*, Elsevier, 1133 – 1141.
- Sampurno, 2003, Kebijakan Pengembangan Obat Bahan Alam Indonesia, Seminar Nasional Tanaman Obat Indonesia XXIII, Universitas Pancasila, Jakarta.
- Sampurno, 2017, Sambutan pada Pembukaan The Third Meeting of Medicinal Plants Focal Points of Indian Ocean Rim Association Regional Center for Science and Technology Transfer (IORA RCSTT) di Jakarta, 10 – 12 Mei 2017.
- SCCP, 2008, Opinion On Tea Tree Oil, Health and Consumer Protection DG Public Health and Risk Assessment, Eropa.
- SCCNFP, 2000, Notes of Guidance for Testing of Cosmetic Ingredients for Their Safety Evaluation, http://ec.europa.eu/health/ph_risk/committees/sccp/documents/out130_en.pdf, 07 Mei 2018.

- Schitteck, B., Hipfel, R., Sauer, B., Bauer, J., Kalbacher, H., Stevanovic, S., 2001, Dermicidin : A Novel Human Antibiotic Peptide Secreted By Sweet Glands, *Nature Immunology*, **2**, 1133 – 1137.
- Schwartz, H., Jones, R.T., Rojas, A.R., Squillace, D.L., Yunginger, J.W., 1997, Occupational Allergic Rhinoconjunctivitis and Asthma Due to Fennel Seed, *Annals of Allergy, Asthma and Immunology*, **78** (1), 37 – 40.
- Silva, C.J., Barbosa, L.C.A., Maltha, C.R.A., Pinheiro, A.L., Ismail, F.M.D., 2007, Comparative Study of The Essential Oils of Seven *Melaleuca* (Myrtaceae) Species Grown in Brazil, *Flavour and Fragrance Journal*, **22**, 474 – 478.
- Simon, A. K., Hollander, G. A., dan McMichael, A., 2015, Evolution of the immune system in humans from infancy to old age,” *Proceedings of the Royal Society B: Biological Sciences*, **282** (1821), 2014-3085.
- Sigma, 2013, Freund’s Adjuvant, Complete and Incomplete, www.sigmaaldrich.com, 7 April 2018.
- Sinaga, E., 2016, Seminar Kefarmasian di Bali, 24 Juli 2016.
- Singh, G., Maurya, S., de Lampasona, M.P., Catalan, C., 2006, Chemical Constituents, Antifungal and Antioxidative Potential of *Foeniculum vulgare* Volatile Oil and Its Acetone Extract, *Journal Food Control*, **17**, 745 – 752.
- Soylu, S., Yigitbas, H., Soylu, E.M., Kurt, S., 2007, Antifungal Effects of Essential Oils from Oregano and Fennel On *Sclerotinia sclerotiorum*, *Journal of Applied Microbiology*, **103**, 1021 – 1030.
- Stamatas, G.N., Nikolovski, J., Luedtke, M.A., 2010, Infant Skin Microstructure Assessed in Vivo Differs from Adult Skin Organization an At The Cellular Level, *Journal Pediatric Dermatology*, **27**, 125 – 131.
- Stevens, M.A., 1967, Use of The Albino Guinea Pig to Detect The Skin Sensitizing Ability of Chemicals, *British Journal of Industrial Medicine*, **24**, 189-202.
- Stropp, 1998, Guinea Pig Maximization Test (GPMT) : Excited Skin Syndrome 2 Examples, 4th Congress of the European Society of Contact Dermatitis, Helsinki.
- Sueki, H., Gammal, C., Kudoh, K., Kligman, A.M., 2000, Hairless Guinea Pig Skin : Anatomical Basis for Studies of Cutaneous Biology, *European Journal of Dermaotology*, **10** (5), 357-64.

- Sutterwala, F.S., Ogura, Y., Szczepanik, M., Lara-Tejero, M., Lichtenberger, G.S., Grant, E.P., Bertin, J., Coyle, A.J., Galan, J.E., Askenase, P.W., Flavell, R.A., 2006, Critical role for NALP3/CIAS1/ Cryopyrin in innate and adaptive immunity through its regulation of caspase-1, *Immunity*, **24** (3), 317–327.
- Tay, S.S., Roediger, B., Tong, P.L., 2013, The Skin Resident Immune Network, *Current Dermatology Reports*, **131**, 1974 – 1980.
- Trayes, K.P., Studdiford, J.S., Pickle, S., Tully, A.S., 2013, Edema : Diagnosis and Management, *American Academy of Family Physicians*, **88** (2), 102 – 110.
- UACC, 2018, Histology Sample Preparation, http://uacc.arizona.edu/research/shared-resources/tacmasr/histology/sample_prep, 29 April 2018.
- UCDENVER, 2012, Harvesting Skin Samples for Histological Analysis, <http://www.ucdenver.edu/academics/colleges/medicalschoo/centers/StemCell/resources/histologycore/Documents/harvesting%20skin%20samples%202012.pdf>, 29 April 2018.
- Underwood, J, C, E., 1996, Patologi Umum dan Sistemik, diterjemahkan oleh Sarjadi, 3-10, Penerbit Buku Kedokteran EGC, Jakarta.
- U.S. Environmental Protection Agency, 2003, Health Effects Test guidelines, *OPPTS*, **870**, 2600.
- Visscher, M.O., Adam, R., Brink, S., Odio, M., 2014a, Newborn Infant Skin : Physiology, Development, and Care, *Clinics in Dermatology*, 1 – 37.
- Visscher, M., Narendran, V., 2014b, The Ontogeny of Skin, *Advance in Wound Care*, **3**, 291– 30.
- Vischer, M.O., Adam, R., Brink, S., Odio, M., 2015, Newborn Infant Skin : Phsiology, Development, and Care, *Clinics in Dermatology Elsevier BV*, **33** (3), 271 – 280.
- Vossen, P., 2013, *Handbook of Olive Oil Analysis and Properties*, Second Ed, Aparicio R, Harwood J, editors, Springer, New York.
- Walker, V.P., Akinbi, H.T., Meinzen-Derr, J., 2008, Host Defense Proteins on The Surface of Neonatal Skin : Implications for Innate Immunity, *Journal of Pediatrics*, **152**, 777 – 781.
- Watanabe, H., Gaide, O., Petrilli, V., Martinon, F., Contassot, E., Roques, S., Kummer, J.A., Tschopp, J., French, L.E., 2007, Activation of the IL-1beta-

processing inflammasome is involved in contact hypersensitivity, *The Journal of investigative dermatology*, **127** (8), 1956–1963.

Wiemann, C., Berthold, K., dan Heusene, A., 2002, Joint Positive Control Testing in Guinea Pig Skin Sensitization Tests A Harmonized Approach, *Journal Regulatory Toxicology and Pharmacology*, **35**, 14 -22.

Zola, H., 1997, The Development of Antibody Responses in the Infant, *Immunology and Cell Biology*, **75**, 587 – 590.