

REFERENCES

- Abramovits, W., Rivas Bejarano, J. J., & Valdecantos, W. C. (2013). Role of Interleukin 1 in Atopic Dermatitis. *Dermatologic Clinics*, 31(3), 437–444. <https://doi.org/10.1016/j.det.2013.04.008>
- Adewuyi, A., Fasusi, O. H., & Oderinde, R. A. (2014). Antibacterial activities of acetonides prepared from the seed oils of *Calophyllum inophyllum* and *Pterocarpus osun*. *Journal of Acute Medicine*, 4(2), 75–80. <https://doi.org/10.1016/j.jacme.2014.02.001>
- Amarbayasgalan, T., Takahashi, H., Dekio, I., & Morita, E. (2013). Interleukin-8 Content in the Stratum Corneum as an Indicator of the Severity of Inflammation in the Lesions of Atopic Dermatitis. *International Archives of Allergy and Immunology*, 160(1), 63–74. <https://doi.org/10.1159/000339666>
- Andreakos, E., Sacre, S. M., Smith, C., Lundberg, A., Kiriakidis, S., Stonehouse, T., Monaco, C., Feldmann, M., & Foxwell, B. M. (2004). Distinct pathways of LPS-induced NF- κ B activation and cytokine production in human myeloid and nonmyeloid cells defined by selective utilization of MyD88 and Mal/TIRAP. *Blood*, 103(6), 2229–2237. <https://doi.org/10.1182/blood-2003-04-1356>
- Ansel, J.-L., Lupo, E., Mijouin, L., Guillot, S., Butaud, J.-F., Ho, R., Lecellier, G., Raharivelomanana, P., & Pichon, C. (2016). Biological Activity of Polynesian *Calophyllum inophyllum* Oil Extract on Human Skin Cells. *Planta Medica*, 82(11/12), 961–966. <https://doi.org/10.1055/s-0042-108205>
- Arkeman Y., Setyaningsih D., & Sanday T. A. (2012). Techno-economic analysis in establishment of biodiesel industry from Nyampung seed (*Calophyllum inophyllum* L.). *Jurnal Teknologi Industri Pertanian*, 23(3), 198–208.
- Asahina, R., & Maeda, S. (2017). A review of the roles of keratinocyte-derived cytokines and chemokines in the pathogenesis of atopic dermatitis in humans and dogs. In S. M. F. Torres & P. Roudebush (Eds.), *Advances in Veterinary Dermatology* (pp. 15–25). John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781119278368.ch2.1>

- Asher, M. I., Montefort, S., Björkstén, B., Lai, C. K., Strachan, D. P., Weiland, S. K., & Williams, H. (2006). Worldwide time trends in the prevalence of symptoms of asthma, allergic rhinoconjunctivitis, and eczema in childhood: ISAAC Phases One and Three repeat multicountry cross-sectional surveys. *The Lancet*, 368(9537), 733–743. [https://doi.org/10.1016/S0140-6736\(06\)69283-0](https://doi.org/10.1016/S0140-6736(06)69283-0)
- Barbarot, S., Auziere, S., Gadkari, A., Girolomoni, G., Puig, L., Simpson, E. L., Margolis, D. J., Bruin-Weller, M., & Eckert, L. (2018). Epidemiology of atopic dermatitis in adults: Results from an international survey. *Allergy*, 73(6), 1284–1293. <https://doi.org/10.1111/all.13401>
- Beken, B., Serttas, R., Yazicioglu, M., Turkekul, K., & Erdogan, S. (2020). Quercetin Improves Inflammation, Oxidative Stress, and Impaired Wound Healing in Atopic Dermatitis Model of Human Keratinocytes. *Pediatric Allergy, Immunology, and Pulmonology*, 33(2), 69–79. <https://doi.org/10.1089/ped.2019.1137>
- Boukamp, P., Petrussevska, R. T., Breitkreutz, D., Hornung, J., Markham, A., & Fusenig, N. E. (1988). Normal keratinization in a spontaneously immortalized aneuploid human keratinocyte cell line. *The Journal of Cell Biology*, 106(3), 761–771. <https://doi.org/10.1083/jcb.106.3.761>
- Brattsand, M., Stefansson, K., Lundh, C., Haasum, Y., & Egelrud, T. (2005). A Proteolytic Cascade of Kallikreins in the Stratum Corneum. *Journal of Investigative Dermatology*, 124(1), 198–203. <https://doi.org/10.1111/j.0022-202X.2004.23547.x>
- Budi Leksono, Rina Laksmi Hendrati, & Eritrina Windyarini. (2013). COUMARINS CONTENT OF SEED AND CRUDE OIL OF NYAMPLUNG (*Calophyllum inophyllum*) FROM FOREST STANDS IN INDONESIA. International Seminar “Forest & Medicinal Plants for Better Human Welfare.”
- Byun, E.-B., Yang, M.-S., Choi, H.-G., Sung, N.-Y., Song, D.-S., Sin, S.-J., & Byun, E.-H. (2013). Quercetin negatively regulates TLR4 signaling induced by lipopolysaccharide through Tollip expression. *Biochemical and Biophysical Research Communications*, 431(4), 698–705. <https://doi.org/10.1016/j.bbrc.2013.01.056>

Cela, E. M., Weill, F. S., Paz, M. L., Leoni, J., & Gonzalez Maglio, D. H. (2015). Lipoteichoic acid challenge induces higher inflammatory responses than lipopolysaccharide in UV-irradiated keratinocytes:

Letter to the Editor. *Photodermatology, Photoimmunology & Photomedicine*, 31(2), 111–114.

<https://doi.org/10.1111/phpp.12149>

Chiller, K., Selkin, B. A., & Murakawa, G. J. (2001). Skin Microflora and Bacterial Infections of the Skin.

Journal of Investigative Dermatology Symposium Proceedings, 6(3), 170–174.

<https://doi.org/10.1046/j.0022-202x.2001.00043.x>

Colombo, I., Sangiovanni, E., Maggio, R., Mattozzi, C., Zava, S., Corbett, Y., Fumagalli, M., Carlino, C.,

Corsetto, P. A., Scaccabarozzi, D., Calvieri, S., Gismondi, A., Taramelli, D., & Dell'Agli, M. (2017).

HaCaT Cells as a Reliable In Vitro Differentiation Model to Dissect the Inflammatory/Repair

Response of Human Keratinocytes. *Mediators of Inflammation*, 2017, 1–12.

<https://doi.org/10.1155/2017/7435621>

Cork, M. J., Danby, S. G., Vasilopoulos, Y., Hadgraft, J., Lane, M. E., Moustafa, M., Guy, R. H., MacGowan,

A. L., Tazi-Ahnini, R., & Ward, S. J. (2009). Epidermal Barrier Dysfunction in Atopic Dermatitis.

Journal of Investigative Dermatology, 129(8), 1892–1908. <https://doi.org/10.1038/jid.2009.133>

Cvitas, I., Galichet, A., Ling, S. C., Müller, E. J., & Marti, E. (2020). Toll-like receptor-ligand induced thymic

stromal lymphopoietin expression in primary equine keratinocytes. *Veterinary Dermatology*,

31(2), 154. <https://doi.org/10.1111/vde.12813>

David Boothe, W., Tarbox, J. A., & Tarbox, M. B. (2017). Atopic Dermatitis: Pathophysiology. In E. A.

Fortson, S. R. Feldman, & L. C. Strowd (Eds.), *Management of Atopic Dermatitis* (Vol. 1027, pp.

21–37). Springer International Publishing. https://doi.org/10.1007/978-3-319-64804-0_3

Di Caprio, R., Lembo, S., Di Costanzo, L., Balato, A., & Monfrecola, G. (2015). Anti-Inflammatory Properties

of Low and High Doxycycline Doses: An In Vitro Study. *Mediators of Inflammation*, 2015, 1–10.

<https://doi.org/10.1155/2015/329418>

Dinarello, C. A. (2009). Immunological and Inflammatory Functions of the Interleukin-1 Family. Annual Review of Immunology, 27(1), 519–550.

<https://doi.org/10.1146/annurev.immunol.021908.132612>

Di Paolo, N. C., & Shayakhmetov, D. M. (2013). Interleukin-1 Receptor 2 Keeps the Lid on Interleukin-1 α . Immunity, 38(2), 203–205. <https://doi.org/10.1016/j.jimmuni.2013.02.001>

Dweck, A. C., & Meadows, T. (2002). Tamanu (*Calophyllum inophyllum*)—The African, Asian, Polynesian and Pacific Panacea. International Journal of Cosmetic Science, 24(6), 341–348. <https://doi.org/10.1046/j.1467-2494.2002.00160.x>

Elias, P. M., & Schmuth, M. (2009). Abnormal skin barrier in the etiopathogenesis of atopic dermatitis. Current Opinion in Allergy & Clinical Immunology, 9(5), 437–446. <https://doi.org/10.1097/ACI.0b013e32832e7d36>

Furue, M., Chiba, T., Tsuji, G., Ulzii, D., Kido-Nakahara, M., Nakahara, T., & Kadono, T. (2017). Atopic dermatitis: Immune deviation, barrier dysfunction, IgE autoreactivity and new therapies. Allergology International: Official Journal of the Japanese Society of Allergology, 66(3), 398–403. <https://doi.org/10.1016/j.alit.2016.12.002>

Ge, Y., Xu, Y., Sun, W., Man, Z., Zhu, L., Xia, X., Zhao, L., Zhao, Y., & Wang, X. (2012). The molecular mechanisms of the effect of Dexamethasone and Cyclosporin A on TLR4 /NF- κ B signaling pathway activation in oral lichen planus. Gene, 508(2), 157–164. <https://doi.org/10.1016/j.gene.2012.07.045>

Gharagozlou, M., Farhadi, E., Khaleghi, M., Behniafard, N., Sotoudeh, S., Salari, R., Darabi, B., Fathi, S. M., Mahmoudi, M., Aghamohammadi, A., Amirzargar, A. A., & Rezaei, N. (2013). Association between the interleukin 6 genotype at position -174 and atopic dermatitis. Journal of Investigational Allergology & Clinical Immunology, 23(2), 89–93.

Ginigini, J., Lecellier, G. J., Nicolas, M., Nour, M., Hnawia, E., Lebouvier, N., Herbette, G., Lockhart, P., & Raharivelomanana, P. (2019). Chemodiversity of *Calophyllum inophyllum* L. oil bioactive components related to their specific geographical distribution in the South Pacific region. *PeerJ*, 7, e6896. <https://doi.org/10.7717/peerj.6896>

Gittler, J. K., Shemer, A., Suárez-Fariñas, M., Fuentes-Duculan, J., Gulewicz, K. J., Wang, C. Q. F., Mitsui, H., Cardinale, I., de Guzman Strong, C., Krueger, J. G., & Guttmann-Yassky, E. (2012). Progressive activation of T(H)2/T(H)22 cytokines and selective epidermal proteins characterizes acute and chronic atopic dermatitis. *The Journal of Allergy and Clinical Immunology*, 130(6), 1344–1354. <https://doi.org/10.1016/j.jaci.2012.07.012>

Gittler, J. K., Wang, J. F., & Orlow, S. J. (2017). Bathing and Associated Treatments in Atopic Dermatitis. *American Journal of Clinical Dermatology*, 18(1), 45–57. <https://doi.org/10.1007/s40257-016-0240-2>

Gong, J. Q., Lin, L., Lin, T., Hao, F., Zeng, F. Q., Bi, Z. G., Yi, D., & Zhao, B. (2006). Skin colonization by *Staphylococcus aureus* in patients with eczema and atopic dermatitis and relevant combined topical therapy: A double-blind multicentre randomized controlled trial: *Staphylococcus aureus* in eczema and AD. *British Journal of Dermatology*, 155(4), 680–687. <https://doi.org/10.1111/j.1365-2133.2006.07410.x>

Gunawan, S., Pamungkas, B., Primaswari, C. S., Hapsari, S., & Aparamarta, H. W. (2020). Calophyllolide Separation from *Calophyllum inophyllum* Oil by Silica Gel Adsorption. *Materials Science Forum*, 988, 101–107. <https://doi.org/10.4028/www.scientific.net/MSF.988.101>

Gutfreund, K., Bienias, W., Szewczyk, A., & Kaszuba, A. (2013). Topical calcineurin inhibitors in dermatology. Part I: Properties, method and effectiveness of drug use. *Advances in Dermatology and Allergology*, 3, 165–169. <https://doi.org/10.5114/pdia.2013.35619>

- Gutiérrez, L., Stepien, G., Gutiérrez, L., Pérez-Hernández, M., Pardo, J., Pardo, J., Grazú, V., & de la Fuente, J. M. (2017). Nanotechnology in Drug Discovery and Development. In *Comprehensive Medicinal Chemistry III* (pp. 264–295). Elsevier. <https://doi.org/10.1016/B978-0-12-409547-2.12292-9>
- Halvorsen, J. A., Lien, L., Dalgard, F., Bjertness, E., & Stern, R. S. (2014). Suicidal Ideation, Mental Health Problems, and Social Function in Adolescents with Eczema: A Population-Based Study. *Journal of Investigative Dermatology*, 134(7), 1847–1854. <https://doi.org/10.1038/jid.2014.70>
- Hänel, K., Cornelissen, C., Lüscher, B., & Baron, J. (2013). Cytokines and the Skin Barrier. *International Journal of Molecular Sciences*, 14(4), 6720–6745. <https://doi.org/10.3390/ijms14046720>
- Harkins, C. P., McAleer, M. A., Bennett, D., McHugh, M., Fleury, O. M., Pettigrew, K. A., Oravcová, K., Parkhill, J., Proby, C. M., Dawe, R. S., Geoghegan, J. A., Irvine, A. D., & Holden, M. T. G. (2018). The widespread use of topical antimicrobials enriches for resistance in *Staphylococcus aureus* isolated from patients with atopic dermatitis. *British Journal of Dermatology*, 179(4), 951–958. <https://doi.org/10.1111/bjd.16722>
- He, R., Oyoshi, M. K., Garibyan, L., Kumar, L., Ziegler, S. F., & Geha, R. S. (2008). TSLP acts on infiltrating effector T cells to drive allergic skin inflammation. *Proceedings of the National Academy of Sciences of the United States of America*, 105(33), 11875–11880. <https://doi.org/10.1073/pnas.0801532105>
- He, Y., Kim, B., Kim, H.-E., Sun, Q., Shi, S., Ma, G., Kim, Y., Kim, O., & Kim, O. (2019). The Protective Role of Feruloylserotonin in LPS-Induced HaCaT Cells. *Molecules*, 24(17), 3064. <https://doi.org/10.3390/molecules24173064>
- Heinbockel, L., Weindl, G., Martinez-de-Tejada, G., Correa, W., Sanchez-Gomez, S., Bárcena-Varela, S., Goldmann, T., Garidel, P., Gutsmann, T., & Brandenburg, K. (2018). Inhibition of Lipopolysaccharide- and Lipoprotein-Induced Inflammation by Antitoxin Peptide Pep19-2.5. *Frontiers in Immunology*, 9, 1704. <https://doi.org/10.3389/fimmu.2018.01704>

- Henderson, J., Northstone, K., Lee, S. P., Liao, H., Zhao, Y., Pembrey, M., Mukhopadhyay, S., Smith, G. D., Palmer, C. N. A., McLean, W. H. I., & Irvine, A. D. (2008). The burden of disease associated with filaggrin mutations: A population-based, longitudinal birth cohort study. *The Journal of Allergy and Clinical Immunology*, 121(4), 872-877.e9. <https://doi.org/10.1016/j.jaci.2008.01.026>
- Heratizadeh, A., & Werfel, T. (2016). Anti-inflammatory therapies in atopic dermatitis. *Allergy*, 71(12), 1666–1675. <https://doi.org/10.1111/all.13065>
- Honda, T., & Kabashima, K. (2019). Prostanoids and leukotrienes in the pathophysiology of atopic dermatitis and psoriasis. *International Immunology*, 31(9), 589–595. <https://doi.org/10.1093/intimm/dxy087>
- Howell, M. D., Kim, B. E., Gao, P., Grant, A. V., Boguniewicz, M., DeBenedetto, A., Schneider, L., Beck, L. A., Barnes, K. C., & Leung, D. Y. M. (2007). Cytokine modulation of atopic dermatitis filaggrin skin expression. *Journal of Allergy and Clinical Immunology*, 120(1), 150–155. <https://doi.org/10.1016/j.jaci.2007.04.031>
- Huet, F., Severino-Freire, M., Chéret, J., Gouin, O., Praneuf, J., Pierre, O., Misery, L., & Le Gall-Ianotto, C. (2018). Reconstructed human epidermis for in vitro studies on atopic dermatitis: A review. *Journal of Dermatological Science*, 89(3), 213–218. <https://doi.org/10.1016/j.jdermsci.2017.11.015>
- Jalali, M., Zaborowska, J., & Jalali, M. (2017). The Polymerase Chain Reaction. In *Basic Science Methods for Clinical Researchers* (pp. 1–18). Elsevier. <https://doi.org/10.1016/B978-0-12-803077-6.00001-1>
- Kabashima, K. (2013). New concept of the pathogenesis of atopic dermatitis: Interplay among the barrier, allergy, and pruritus as a trinity. *Journal of Dermatological Science*, 70(1), 3–11. <https://doi.org/10.1016/j.jdermsci.2013.02.001>

- Kang, J., Yang, H., Park, J., Shin, J., Kim, T., Lee, S. H., Lee, H., & Park, I. (2021). Lipopolysaccharide regulates thymic stromal lymphopoietin expression via TLR4/MAPK/Akt/NF-κB-signaling pathways in nasal fibroblasts: Differential inhibitory effects of macrolide and corticosteroid. *International Forum of Allergy & Rhinology*, 11(2), 144–152. <https://doi.org/10.1002/alr.22641>
- Kapur, S., Watson, W., & Carr, S. (2018). Atopic dermatitis. *Allergy, Asthma & Clinical Immunology*, 14(S2), 52. <https://doi.org/10.1186/s13223-018-0281-6>
- Kim, H. J., Baek, J., Lee, J. R., Roh, J. Y., & Jung, Y. (2018). Optimization of Cytokine Milieu to Reproduce Atopic Dermatitis-related Gene Expression in HaCaT Keratinocyte Cell Line. *Immune Network*, 18(2), e9. <https://doi.org/10.4110/in.2018.18.e9>
- Kim, S., Kim, H.-E., Kang, B., Lee, Y.-W., Kim, H., & Chung, D. K. (2017). Lipoteichoic Acid Isolated from *Staphylococcus aureus* Induces Both Epithelial-Mesenchymal Transition and Wound Healing in HaCaT Cells. *Journal of Microbiology and Biotechnology*, 27(10), 1820–1826. <https://doi.org/10.4014/jmb.1703.03068>
- Kisich, K. O., Carspecken, C. W., Fiéve, S., Boguniewicz, M., & Leung, D. Y. M. (2008). Defective killing of *Staphylococcus aureus* in atopic dermatitis is associated with reduced mobilization of human β-defensin-3. *Journal of Allergy and Clinical Immunology*, 122(1), 62–68. <https://doi.org/10.1016/j.jaci.2008.04.022>
- Kobayashi, E. H., Suzuki, T., Funayama, R., Nagashima, T., Hayashi, M., Sekine, H., Tanaka, N., Moriguchi, T., Motohashi, H., Nakayama, K., & Yamamoto, M. (2016). Nrf2 suppresses macrophage inflammatory response by blocking proinflammatory cytokine transcription. *Nature Communications*, 7(1), 11624. <https://doi.org/10.1038/ncomms11624>
- Kobayashi, T., Glatz, M., Horiuchi, K., Kawasaki, H., Akiyama, H., Kaplan, D. H., Kong, H. H., Amagai, M., & Nagao, K. (2015). Dysbiosis and *Staphylococcus aureus* Colonization Drives Inflammation in Atopic Dermatitis. *Immunity*, 42(4), 756–766. <https://doi.org/10.1016/j.jimmuni.2015.03.014>

- Köllisch, G., Kalali, B. N., Voelcker, V., Wallich, R., Behrendt, H., Ring, J., Bauer, S., Jakob, T., Mempel, M., & Ollert, M. (2005). Various members of the Toll-like receptor family contribute to the innate immune response of human epidermal keratinocytes. *Immunology*, 114(4), 531–541. <https://doi.org/10.1111/j.1365-2567.2005.02122.x>
- Krakowski, A. C., Eichenfield, L. F., & Dohil, M. A. (2008). Management of Atopic Dermatitis in the Pediatric Population. *Pediatrics*, 122(4), 812–824. <https://doi.org/10.1542/peds.2007-2232>
- Krause, K., Metz, M., Makris, M., Zuberbier, T., & Maurer, M. (2012). The role of interleukin-1 in allergy-related disorders. *Current Opinion in Allergy and Clinical Immunology*, 12(5), 477–484. <https://doi.org/10.1097/ACI.0b013e3283574d0c>
- Ku, W.-J., Lin, C.-J., & Lin, P.-H. (2021). UV-Protection Performance of *Calophyllum inophyllum* Seed Extracts: A Natural Ultraviolet Screening Agent. *Natural Product Communications*, 16(1), 1934578X20985650. <https://doi.org/10.1177/1934578X20985650>
- Kuete, V., Karaosmanoğlu, O., & Sivas, H. (2017). Anticancer Activities of African Medicinal Spices and Vegetables. In *Medicinal Spices and Vegetables from Africa* (pp. 271–297). Elsevier. <https://doi.org/10.1016/B978-0-12-809286-6.00010-8>
- Lee, H., Park, J., Kwon, O., Lim, Y., Kim, J., Kim, S., Zamora, N., Rosales, K., Choi, S., Oh, S., & Ahn, K. (2019). Anti-inflammatory effects of ethanol extract from the leaves and shoots of *Cedrela odorata* L. in cytokine-stimulated keratinocytes. *Experimental and Therapeutic Medicine*. <https://doi.org/10.3892/etm.2019.7639>
- Leung, D. Y. M. (2009). Our evolving understanding of the functional role of filaggrin in atopic dermatitis. *The Journal of Allergy and Clinical Immunology*, 124(3), 494–495. <https://doi.org/10.1016/j.jaci.2009.07.041>
- Leung, D. Y. M. (2018). Can antibiotics be harmful in atopic dermatitis? *British Journal of Dermatology*, 179(4), 807–808. <https://doi.org/10.1111/bjd.17023>

- Lew, B.-L., Sim, W.-Y., & Kim, N.-I. (2009). Expression of Toll-like Receptor 2 in Cultured Human Keratinocytes: The Effect of Bacterial Antigens, Cytokines and Calcium Concentration. *Annals of Dermatology*, 21(4), 337. <https://doi.org/10.5021/ad.2009.21.4.337>
- Li, S., Xie, R., Jiang, C., & Liu, M. (2018). Schizandrin A Alleviates LPS-Induced Injury in Human Keratinocyte Cell Hacat Through a MicroRNA-127-Dependent Regulation. *Cellular Physiology and Biochemistry*, 49(6), 2229–2239. <https://doi.org/10.1159/000493826>
- Liu, W.-H., Liu, Y.-W., Chen, Z.-F., Chiou, W.-F., Tsai, Y.-C., & Chen, C.-C. (2015). Calophyllolide Content in *Calophyllum inophyllum* at Different Stages of Maturity and Its Osteogenic Activity. *Molecules*, 20(7), 12314–12327. <https://doi.org/10.3390/molecules200712314>
- Liu, Y.-J. (2007). Thymic stromal lymphopoietin and OX40 ligand pathway in the initiation of dendritic cell-mediated allergic inflammation. *Journal of Allergy and Clinical Immunology*, 120(2), 238–244. <https://doi.org/10.1016/j.jaci.2007.06.004>
- Markossian, S., Sittampalam, G. S., & Grossman, A. (2004). Assay Guidance Manual. Eli Lilly & Company and the National Center for Advancing Translational Sciences.
- Menon, G. K., Cleary, G. W., & Lane, M. E. (2012). The structure and function of the stratum corneum. *International Journal of Pharmaceutics*, 435(1), 3–9. <https://doi.org/10.1016/j.ijpharm.2012.06.005>
- Meridian Bioscience. (n.d.). SensiFAST™ SYBR® No-ROX One-Step Kit.
- Nakai, K., Kubota, Y., Soma, G.-I., & Kohchi, C. (2019). The Effect of Lipopolysaccharide-containing Moisturizing Cream on Skin Care in Patients With Mild Atopic Dermatitis. *In Vivo*, 33(1), 109–114. <https://doi.org/10.21873/invivo.11446>
- Namkung, J.-H., Lee, J.-E., Kim, E., Kim, H.-J., Seo, E.-Y., Jang, H.-Y., Shin, E.-S., Cho, E.-Y., & Yang, J.-M. (2011). Association of polymorphisms in genes encoding IL-4, IL-13 and their receptors with

atopic dermatitis in a Korean population: IL-4, IL-13 and their receptors in atopic dermatitis.

Experimental Dermatology, 20(11), 915–919. <https://doi.org/10.1111/j.1600-0625.2011.01357.x>

Nguyen, V.-L., Truong, C.-T., Nguyen, B. C. Q., Vo, T.-N. V., Dao, T.-T., Nguyen, V.-D., Trinh, D.-T. T., Huynh, H.

K., & Bui, C.-B. (2017). Anti-inflammatory and wound healing activities of calophyllolide isolated

from *Calophyllum inophyllum* Linn. PLOS ONE, 12(10), e0185674.

<https://doi.org/10.1371/journal.pone.0185674>

Nikiforova, M. N., & Nikiforov, Y. E. (2011). Molecular Anatomic Pathology. In Diagnostic

Immunohistochemistry (pp. 42–57). Elsevier.

<https://doi.org/10.1016/B978-1-4160-5766-6.00006-6>

Ohtsuki, M., Morimoto, H., & Nakagawa, H. (2018). Tacrolimus ointment for the treatment of adult and

pediatric atopic dermatitis: Review on safety and benefits. The Journal of Dermatology, 45(8),

936–942. <https://doi.org/10.1111/1346-8138.14501>

Ondet, T., Muscatelli-Groux, B., Couloarn, C., Robert, S., Gicquel, T., Bodin, A., Lagente, V., & Grimaud,

J.-A. (2017). The release of pro-inflammatory cytokines is mediated via mitogen-activated protein

kinases rather than by the inflammasome signalling pathway in keratinocytes. Clinical and

Experimental Pharmacology and Physiology, 44(7), 827–838.

<https://doi.org/10.1111/1440-1681.12765>

Palmer, C. N. A., Irvine, A. D., Terron-Kwiatkowski, A., Zhao, Y., Liao, H., Lee, S. P., Goudie, D. R.,

Sandilands, A., Campbell, L. E., Smith, F. J. D., O'Regan, G. M., Watson, R. M., Cecil, J. E., Bale, S. J.,

Compton, J. G., DiGiovanna, J. J., Fleckman, P., Lewis-Jones, S., Arsecularatne, G., ... McLean, W.

H. I. (2006). Common loss-of-function variants of the epidermal barrier protein filaggrin are a

major predisposing factor for atopic dermatitis. Nature Genetics, 38(4), 441–446.

<https://doi.org/10.1038/ng1767>

- Parsons, J. B., Yao, J., Frank, M. W., Jackson, P., & Rock, C. O. (2012). Membrane Disruption by Antimicrobial Fatty Acids Releases Low-Molecular-Weight Proteins from *Staphylococcus aureus*. *Journal of Bacteriology*, 194(19), 5294–5304. <https://doi.org/10.1128/JB.00743-12>
- Pestana, E. A., Belak, S., Diallo, A., Crowther, J. R., & Viljoen, G. J. (2009). Real-Time PCR – The Basic Principles. In E. Pestana, S. Belak, A. Diallo, J. R. Crowther, & G. J. Viljoen, Early, rapid and sensitive veterinary molecular diagnostics—Real time PCR applications (pp. 27–46). Springer Netherlands. https://doi.org/10.1007/978-90-481-3132-7_3
- Praveena, C. (2013). Phytochemical Investigation of *Calophyllum inophyllum* Linn. *Natural Products Chemistry & Research*, 1(4). <https://doi.org/10.4172/2329-6836.1000119>
- Qazi, B. S., Tang, K., & Qazi, A. (2011). Recent Advances in Underlying Pathologies Provide Insight into Interleukin-8 Expression-Mediated Inflammation and Angiogenesis. *International Journal of Inflammation*, 2011, 1–13. <https://doi.org/10.4061/2011/908468>
- Qi, F., Sun, J., Yan, J., Li, C., & Lv, X. (2018). Anti-inflammatory effects of isorhamnetin on LPS-stimulated human gingival fibroblasts by activating Nrf2 signaling pathway. *Microbial Pathogenesis*, 120, 37–41. <https://doi.org/10.1016/j.micpath.2018.04.049>
- Raharivelomanana, P., Ansel, J.-L., Lupo, E., Mijouin, L., Guillot, S., Butaud, J.-F., Ho, R., Lecellier, G., & Pichon, C. (2018). Tamanu oil and skin active properties: From traditional to modern cosmetic uses. *OCL*, 25(5), D504. <https://doi.org/10.1051/ocl/2018048>
- Reed, B., & Blaiss, M. S. (2018). The burden of atopic dermatitis. *Allergy and Asthma Proceedings*, 39(6), 406–410. <https://doi.org/10.2500/aap.2018.39.4175>
- Rolfs, F., Huber, M., Kuehne, A., Kramer, S., Haertel, E., Muzumdar, S., Wagner, J., Tanner, Y., Böhm, F., Smola, S., Zamboni, N., Levesque, M. P., Dummer, R., Beer, H.-D., Hohl, D., Werner, S., & Schäfer, M. (2015). Nrf2 Activation Promotes Keratinocyte Survival during Early Skin Carcinogenesis via Metabolic Alterations. *Cancer Research*, 75(22), 4817–4829.

Roy, J., Jain, N., Singh, G., Das, B., & Mallick, B. (2019). Small RNA proteome as disease biomarker: An incognito treasure of clinical utility. In AGO-Driven Non-Coding RNAs (pp. 101–136). Elsevier.
<https://doi.org/10.1016/B978-0-12-815669-8.00005-1>

Sahu, B., R., A., & Mohammed Abu Javid. (2017). Application of Calophyllum inophyllum oil as antifungal fat-liquor for leather industry. Industrial Crops and Products, 105, 104–112.
<https://doi.org/10.1016/j.indcrop.2017.04.064>

Schadich, E., Hlaváč, J., Volná, T., Varanasi, L., Hajdúch, M., & Džubák, P. (2016). Effects of Ginger Phenylpropanoids and Quercetin on Nrf2-ARE Pathway in Human BJ Fibroblasts and HaCaT Keratinocytes. BioMed Research International, 2016, 1–6.
<https://doi.org/10.1155/2016/2173275>

Sehra, S., Yao, Y., Howell, M. D., Nguyen, E. T., Kansas, G. S., Leung, D. Y. M., Travers, J. B., & Kaplan, M. H. (2010). IL-4 Regulates Skin Homeostasis and the Predisposition toward Allergic Skin Inflammation. The Journal of Immunology, 184(6), 3186–3190.
<https://doi.org/10.4049/jimmunol.0901860>

Shi, B., Leung, D. Y. M., Taylor, P. A., & Li, H. (2018). Methicillin-Resistant Staphylococcus aureus Colonization Is Associated with Decreased Skin Commensal Bacteria in Atopic Dermatitis. Journal of Investigative Dermatology, 138(7), 1668–1671. <https://doi.org/10.1016/j.jid.2018.01.022>

Shih, T.-L., Liu, M.-H., Li, C.-W., & Kuo, C.-F. (2018). Halo-Substituted Chalcones and Azachalcones Inhibited Lipopolysaccharide-Stimulated Pro-Inflammatory Responses through the TLR4-Mediated Pathway. Molecules : A Journal of Synthetic Chemistry and Natural Product Chemistry, 23(3), 597.
<https://doi.org/10.3390/molecules23030597>

Silverberg, N. B., & Silverberg, J. I. (2015). Inside out or outside in: Does atopic dermatitis disrupt barrier function or does disruption of barrier function trigger atopic dermatitis? Cutis, 96(6), 359–361.

- Simpson, E. L. (2010). Atopic dermatitis: A review of topical treatment options. *Current Medical Research and Opinion*, 26(3), 633–640. <https://doi.org/10.1185/03007990903512156>
- Song, P. I., Neparidze, N., Armstrong, C. A., Ansel, J. C., Park, Y.-M., Abraham, T., Harten, B., & Zivony, A. (2002). Human Keratinocytes Express Functional CD14 and Toll-Like Receptor 4. *Journal of Investigative Dermatology*, 119(2), 424–432. <https://doi.org/10.1046/j.1523-1747.2002.01847.x>
- Spergel, J. (2003). Atopic dermatitis and the atopic march. *Journal of Allergy and Clinical Immunology*, 112(6), S118–S127. <https://doi.org/10.1016/j.jaci.2003.09.033>
- Spergel, J. M. (2010). Epidemiology of Atopic Dermatitis and Atopic March in Children. *Immunology and Allergy Clinics of North America*, 30(3), 269–280. <https://doi.org/10.1016/j.iac.2010.06.003>
- Spergel, J. M., Mizoguchi, E., Brewer, J. P., Martin, T. R., Bhan, A. K., & Geha, R. S. (1998). Epicutaneous sensitization with protein antigen induces localized allergic dermatitis and hyperresponsiveness to methacholine after single exposure to aerosolized antigen in mice. *Journal of Clinical Investigation*, 101(8), 1614–1622. <https://doi.org/10.1172/JCI1647>
- Staurengo-Ferrari, L., Badaro-Garcia, S., Hohmann, M. S. N., Manchope, M. F., Zaninelli, T. H., Casagrande, R., & Verri, W. A. (2019). Contribution of Nrf2 Modulation to the Mechanism of Action of Analgesic and Anti-inflammatory Drugs in Pre-clinical and Clinical Stages. *Frontiers in Pharmacology*, 9, 1536. <https://doi.org/10.3389/fphar.2018.01536>
- Sullivan, M., & Silverberg, N. B. (2017). Current and emerging concepts in atopic dermatitis pathogenesis. *Clinics in Dermatology*, 35(4), 349–353. <https://doi.org/10.1016/j.cldermatol.2017.03.006>
- Tameez Ud Din, A., Malik, I., Arshad, D., & Tameez Ud Din, A. (2020). Dupilumab for Atopic Dermatitis: The Silver Bullet We Have Been Searching for? *Cureus*. <https://doi.org/10.7759/cureus.7565>
- Tao, Y., Wang, Y., Wang, X., Wang, C., Bao, K., Ji, L., Jiang, G., & Hong, M. (2017). Calycosin Suppresses Epithelial Derived Initiative Key Factors and Maintains Epithelial Barrier in Allergic Inflammation

via TLR4 Mediated NF- κ B Pathway. *Cellular Physiology and Biochemistry*, 44(3), 1106–1119.

<https://doi.org/10.1159/000485416>

Terui, T., Hirao, T., Sato, Y., Uesugi, T., Honda, M., Iguchi, M., Matsumura, N., Kudoh, K., Aiba, S., & Tagami, H. (1998). An increased ratio of interleukin-1 receptor antagonist to interleukin-1? In inflammatory skin diseases. *Experimental Dermatology*, 7(6), 327–334.
<https://doi.org/10.1111/j.1600-0625.1998.tb00332.x>

Thomsen, S. F. (2014). Atopic Dermatitis: Natural History, Diagnosis, and Treatment. *ISRN Allergy*, 2014, 1–7. <https://doi.org/10.1155/2014/354250>

Toshitani, A., Ansel, J. C., Chan, S. C., Li, S.-H., & Hanifin, J. M. (1993). Increased Interleukin 6 Production by T Cells Derived from Patients with Atopic Dermatitis. *Journal of Investigative Dermatology*, 100(3), 299–304. <https://doi.org/10.1111/1523-1747.ep12469875>

Tsai, S.-C., Liang, Y.-H., Chiang, J.-H., Liu, F.-C., Lin, W.-H., Chang, S.-J., Lin, W.-Y., Wu, C.-H., & Weng, J.-R. (2012). Anti-inflammatory effects of *Calophyllum inophyllum* L. in RAW264.7 cells. *Oncology Reports*, 28(3), 1096–1102. <https://doi.org/10.3892/or.2012.1873>

Tsakok, T., Marrs, T., Mohsin, M., Baron, S., du Toit, G., Till, S., & Flohr, C. (2016). Does atopic dermatitis cause food allergy? A systematic review. *Journal of Allergy and Clinical Immunology*, 137(4), 1071–1078. <https://doi.org/10.1016/j.jaci.2015.10.049>

Van Thanh, N., Jang, H.-J., Vinh, L. B., Linh, K. T. P., Huong, P. T. T., Cuong, N. X., Nam, N. H., Van Minh, C., Kim, Y. H., & Yang, S. Y. (2019). Chemical constituents from Vietnamese mangrove *Calophyllum inophyllum* and their anti-inflammatory effects. *Bioorganic Chemistry*, 88, 102921.
<https://doi.org/10.1016/j.bioorg.2019.102921>

Wicaksana, M. A., Oki, S., & Fenny, D., D. (2017). Quality of Life in Children with Atopic Dermatitis. *Althea Medical Journal*, 4(3), 335–339. <https://doi.org/10.15850/amj.v4n3.652>

Widyaningsih, S., Chasani, M., Diastuti, H., & Fredyono, W. N. (2018). Liquid Soap from Nyamplung Seed Oil (*Calophyllum inophyllum* L) with Ketapang (*Terminalia catappa* L) as Antioxidant and Cardamom (*Amomum compactum*) as Fragrance. *Molekul*, 13(2), 172.

<https://doi.org/10.20884/1.jm.2018.13.2.461>

Wilczynski, S. P. (2009). Molecular Biology. In *Modern Surgical Pathology* (pp. 85–120). Elsevier.
<https://doi.org/10.1016/B978-1-4160-3966-2.00006-0>

Wilson, S. R., Thé, L., Batia, L. M., Beattie, K., Katibah, G. E., McClain, S. P., Pellegrino, M., Estandian, D. M., & Bautista, D. M. (2013). The Epithelial Cell-Derived Atopic Dermatitis Cytokine TSLP Activates Neurons to Induce Itch. *Cell*, 155(2), 285–295. <https://doi.org/10.1016/j.cell.2013.08.057>

Yücel, G., Zhao, Z., El-Battrawy, I., Lan, H., Lang, S., Li, X., Buljubasic, F., Zimmermann, W.-H., Cyganek, L., Utikal, J., Ravens, U., Wieland, T., Borggrefe, M., Zhou, X.-B., & Akin, I. (2017). Lipopolysaccharides induced inflammatory responses and electrophysiological dysfunctions in human-induced pluripotent stem cell derived cardiomyocytes. *Scientific Reports*, 7(1), 2935.
<https://doi.org/10.1038/s41598-017-03147-4>

Zakaria, M. B., Vijayasekaran, Ilham, Z., & Muhamad, N. A. (2014). Anti-inflammatory Activity of *Calophyllum inophyllum* Fruits Extracts. *Procedia Chemistry*, 13, 218–220.
<https://doi.org/10.1016/j.proche.2014.12.031>

Zhang, J., Zheng, Q., Lu, H., Jin, F., Li, Y., Bi, F., & Xu, J. (2019). Notoginsenoside R1 protects human keratinocytes HaCaT from LPS-induced inflammatory injury by downregulation of Myd88. *International Journal of Immunopathology and Pharmacology*, 33, 205873841985755.
<https://doi.org/10.1177/2058738419857550>

Zhu, X., Li, N., Wang, Y., Ding, L., Chen, H., Yu, Y., & Shi, X. (2017). Protective effects of quercetin on UVB irradiation-induced cytotoxicity through ROS clearance in keratinocyte cells. *Oncology Reports*, 37(1), 209–218. <https://doi.org/10.3892/or.2016.5217>