

Abdullahi, A., Nik, S.A., Jeschke, M.G. (2014). Animal models in burn research. *Cell. Mol. Life Sci.* DOI 10.1007/s00018-014-1612-5

Ackerman, A. B., Böer, A., Bennin, B., & Gottlieb, G. J. (2005). An Algorithmic Method Based on Pattern Analysis: Embryologic, Histologic, and Anatomic Aspects: Elastic Fibers. In: *Histologic Diagnosis of Inflammatory Skin Diseases* 3rd Ed. Philadelphia: Lippincott Williams and Wilkins, USA.

Adigbli, G., Alshomer, F., Maksimcuka, J., & Ghali, S. (2016). Principles of Plastic Surgery, Wound Healing, Skin Grafts and Flaps. In: Kalajaringan parut, D., Butler, P. E. M., Ghali, S. (Eds), *Textbook of Plastic and Reconstructive Surgery*, pp. 6-7. London: UCL Press, UK.

Ahuja, R. B., Bhattacharya, S., Rai, A. (2009). Changing trends of an endemic trauma. *Burns*, 35(5): 650-656.

American Burn Association. (2009). National Burn Repository, Version 5.0. www.ameriburn.org/2009NBRAnnualReport.pdf (Accessed on May 02, 2018).

American Burn Association. (2017). Burn incidence and treatment in the US: 2007 Fact Sheet ameriburn.org (Accessed on December 14, 2017).

Apelqvist, J., Armstrong, D. G., Augustin, M., Baharestani, M., Banwell, P., Paola, L. D., (2008). Vacuum assisted closure: recommendations for use A consensus document. *Principles of Best Practice*, 1-10. *Int Wound J.*, 5(Suppl 4): iii–NaN19.

Armstrong, D. G., Boulton, A. J. M., & Bus, S. A. (2017). Diabetic foot ulcer and Their Recurrence. *N Engl J Med*, 376: 2367-2375.

Arslan, K., Karahan O., Okus A., Unlu Y., Eryilmaz M. A., Ay S., (2012). Comparison of topical zinc oxide and *silver sulfadiazine* in burn wounds: an experimental study. *Ulus Travma Acil Cerrahi Derg*, 18(5): 376-383.

Ayadi, A. E., Herndon, D. N., & Finnerty, C. C. (2018). Biomarkers in Burn Patient Care. In: Herndon, D. N. (Ed). *Total Burn Care* 5th Ed., pp. 232-235. Philadelphia: Saunders Elsevier, USA

Badiavas, E. V., & Falanga, V. (2003). Treatment of chronic wounds with bone marrow-derived cells. *Arch Dermatol*. 139(4): 510-516

- Bainbridge, P. (2013). Wound healing and the role of fibroblasts. *J Wound Care*, 22(8): 407–412.
- Barret, J. P., Dziewulski, P., Ramzy, P. I., Wolf, S. E., Desai, M. H., & Herndon, D. N. (2000). Biobrane versus 1% *silver sulfadiazine* in second-degree pediatric burns. *Plast Reconstr Surg*, 105(1): 62-65.
- Bonfield, T. L., & Caplan, A.I. (2010) Adult Mesenchymal Stem Cells: An Innovative Therapeutic for Lung Diseases. *Discov Med*, 9(47): 337-345
- Brodie L Emergency Management of Severe Burns (EMSB). The Education Committee of The Australian and New Zealand Burn Association Limited. 17th edition Feb 2013
- Burd, A., Ahmed, K., Lam, S., Ayyappan T., Huang, L. (2007). Stem cell strategies in burns care. *Burns*, 33(3): 282-291.
- Burns, J. L., Mancoll, J. S., & Phillips, L. G. (2003). Impairments to wound healing. *Clin Plast Surg*, 30(1): 47-56.
- Carriere, V., Roussel, L., Ortega, N., Lacorre, D.A., Americh, L., Aguilar, L., Bouche, G., Girard, J.P., (2007). IL-33, the IL-1-like cytokine ligand for ST2 receptor, is a chromatin-associated nuclear factor in vivo. *Proc Natl Acad Sci USA*, 104(1): 282–287.
- Chan, R. K., Garfein, E., Gigante, P. R., Liu, P., Agha, R. A., Mulligan, R., (2007). Side population hematopoietic stem cells promote wound healing in diabetic mice. *Plast Reconstr Surg*, 120(2): 407-411.
- Chang, A. C., Dearman, B., & Greenwood, J. E. (2011). A Comparison of Wound Area Measurement Techniques: Visitrak Versus Photography. *Eplasty*, 11: 158-166.
- Chen, B., Kao, H. K., Dong, Z., Jiang, Z., & Guo, L. (2017). Complementary Effects of Negative-Pressure Wound Therapy and Pulsed Radiofrequency Energy on Cutaneous Wound Healing in Diabetic Mice. *Plast Reconstr Surg*, 139(1): 105-117.
- Chen, S., Takahara, M., Kido, M., Takeuchi, S., Uchi, H., Tu, Y., (2008). Increased expression of an epidermal stem cell marker, cytokeratin 19, in cutaneous squamous cell carcinoma. *Br J Dermatol*, 159(4): 952-955.
- Chung, K. (2020). Grabb and Smith's plastic surgery. Philadelphia: Wolters Kluwer.

- Clark, R.A. (1993). Basics of cutaneous wound repair. *J Dermatol Surg Oncol*, 19(8): 693-706.
- Daly, T. J. (1990). The repair phase of wound healing-re-epithelialization and contraction. In: Kloth, L. C., McCulloch, I. M, Feedar, I. A. (Eds), London: FA Davis Company, UK.
- Diegelmann, R. F., & Evans, M. C. (2004). Wound healing: an overview of acute, fibrotic and delayed healing. *Front Biosci*, 9: 283-289.
- Dumville, J. C., Munson, C., Christie, J. (2014). Negative pressure wound therapy for partial-thickness burns. *Cochrane Database Syst Rev*, (12).
- Elsous, A., Ouda, M., Mohsen, S., Al-Shaikh, M., Mokayad, S., Abo-Shaban, N., (2016). Epidemiology and outcomes of hospitalized burn patients in Gaza strip: a descriptive study. *Ethiop J Health Sci*, 26(1): 9-16.
- Eyden, B. (2008). The myofibroblast: phenotypic characterization as a prerequisite to understanding its functions in translational medicine. *J Cell Mol Med*, 12(1): 22-37.
- Falanga, V., Iwamoto, S., Chartier, M., Yufit, T., Butmarc, J., Kouttab, N., (2007). Autologous bone marrow-derived cultured mesenchymal stem cell delivered in a fibrin spray accelerate healing in murine and human cutaneous wounds. *Tissue Eng*, 13(6): 1299-1312
- Fischer, S., Wall, J., Pomahac, B., Riviello, R., & Halvorson, E. G. (2016). Extra-large negative pressure wound therapy dressings for burns – Initial experience with technique, fluid management, and outcomes. *Burns*, 42(2): 457-465.
- Forjuoh, N. (2006). Burns in low and middle-income countries: a review of available literature on descriptive epidemiology, risk factor, treatment, and prevention. *Burns*, 32: 529-537.
- Forsberg, J. A., Potter, B. K., Polfer E. M., Safford S. D., Elster, E. A. (2014). Do inflammatory markers pretend heterotopic ossification and wound failure in combat wounds? *Clin Orthopaed Related Res*. 472(9): 2845-2854.
- Frear, C. C., Cuttle, L., McPhail, S. M., Chatfield, M. D., Kimble, R. M., & Griffin, B. R. (2020). Randomized clinical trial of negative pressure wound therapy as an adjunctive treatment for small-area thermal burns in children. *Br J Surg*, 107(13), 1741–1750.
- Gamelli, R. L., & He, L. K. (2003). Incisional wound healing. Model and analysis of wound breaking strength. *Methods Mol Med*, 78: 37-54.

- Ghie, F., Jurjus, R., Ibrahim, A., Geagea, A. G., Daouk, H., Baba, B. E., (2015). The Use of Stem Cells in Burn Wound Healing: A Review. *BioMed Research International*, 1: 1-9.
- Glass, G. E., Murphy, G. R. F. dan Nanchahal, J. (2017) 'Does negative-pressure wound therapy influence subjacent bacterial growth? A systematic review', *J Plast Reconstr Aesthet Surg*, pp. 1028–1037
- Glesinger, R., Cohen, A.D., Berezovsky, A.B., Krieger, Y., & Rosenberg, L. (2004). A Randomized Controlled Trial of *Silver sulfadiazine*, Biafine, and Saline-soaked Gauze in the Treatment of Superficial Partial-thickness Burn Wounds in Pigs. *Acad Emerg Med*, Vol. 11(4): 339-342
- Gonzalez A.D., Costa, T.F., Andrade, Z.A., and Medrado, A.R.A.P. (2016). Wound healing - A literature review. *An Bras Dermatol*, Vol 91(5):614-20
- Gopalakrishnan, R., Rajendran, S., Ravikumar, N. P. G., & Ravikumar, S. G. (2016). The role of quantitative bacteriology on burn wound management. *Int Surg J*, 3(2): 595-602.
- Gurtner, G. C., Werner, S., Barrandon, Y., & Longaker, M.T. (2008). Wound Repair Regeneration. *Nat*, 453: 314–321.
- Hansbrough, J. F., Achauer, B., Dawson, J., Himel, H., Luterman, A., Slater, H., (1995). Wound healing in partial-thickness burn wounds treated with collagenase ointment versus silver sulfadiazine cream. *J Burn Care Rehabil*, 16(3 Pt 1):241-7.
- Hawkins, H. K., & Finnerty, C. C. (2012). Chapter 46–Pathophysiology of the burn scar. In: Herndon, D. N. (Ed). *Total Burn Care* 3rd Ed., pp. 506-516. Philadelphia: Saunders Elsevier, USA.
- Hawthornthwaite, J. S., Stojadinovic, A., Gage, F. A., Tadaki, D. K., Perdue, P. W., Forsber, J. (2009). Inflammatory biomarkers in combat wound healing. *Ann Surg*, 250 (6): 1002-1007.
- He, R., Yin, H., Yuan, B., Liu, T., Luo, L., Huang, P., Dai, L., dan Zeng, K. (2017). IL-33 Improves Wound Healing Through Enhanced M2 Macrophage Polarization in Diabetic Mice. *Mol Immunol*. 42-49.
- Hermans, M. H. (2007). Silver-containing dressings and the need for evidence. *Adv Skin Wound Care*, 20(3): 166-173.
- Herndon, D. (2017). *Total Burn Care E-Book*. Philadelphia: Elsevier.

- Hettiatatchy, S., & Dziwulski, P. (2004). ABC of burns Patophysiology and types of burns. *BMJ*, 328: 1427-1429.
- Honnegowda, T.M., Udupa, E.G.P., Rao, P., Kumar, P. and Singh, R. (2016). Superficial burn wound healing with intermittent negative pressure wound therapy under limited access and conventional dressings. *World J Plast Surg*, 5(3): 265-273.
- Huang, C., Orgill, D. P., & Leavit, T. (2014). Effect of negative pressure wound therapy on wound healing. *Curr Probl Surg*, 51: 301-331.
- Hunt, T. K., Hopf, H., Hussain, Z. (2000). Physiology of wound healing. *Adv Skin Wound Care*, 13(2 Suppl): 6-11.
- Ilyas, M. N., Adzim, M. K. R., Simbak, N. B., & Atif, A. B. (2017). Sample Size Calculation for Animal Studies Using Degree of Freedom (E); an Easy and Statistically Defined Approach for Metabolomics and Genetic Research. *Curr Trends Biomedical Eng & Biosci*, 10(2).
- Indonesian Ministry of Health. (2014). Report of National Basic Health Research (RISKESDAS) 2014. Jakarta: Indonesia.
- ISBI Practice Guidelines Committee. (2016). ISBI Practice Guidelines for Burn Care. *Burns*, 42: 953-1021
- ISBI Practice Guidelines Committee. (2018). ISBI Practice Guidelines for Burn Care, Part 2. *Burns*, 44: 1617-1706
- Ito, M., Liu, Y., Yang, Z., Nguyen, J., Liang, F., Morris, R. J. (2005). Stem cells in the hair follicle bulge contribute to wound repair but not to homeostasis of the epidermis. *Nat Med*, 11(12): 1351-1354.
- Itoh, T., Kawabe, M., Nagase, T., Endo, K., Miyoshi, M., & Miyahara, K. (2016). Body surface area measurement in laboratory miniature pigs using a computed tomography scanner. *J. Toxicol. Sci*, 41(5): 637-644.
- Jiang, Y., Jahagirdar, B. N., Reinhardt, R.L., Shwartz, R. E., Keene, C. D., Ortiz-Gonzales, X. R., (2002). Pluripotency of mesenchymal stem cell derived from adult marrow. *Nature*, 418: 41-49.
- Kantak, N. A., Mistry, R., Varon, D. E., & Halvorson, E. G. (2017). Negative Pressure Wound Therapy for Burns. *Clin Plastic Surg*, 44(3): 671-677.
- Komi-Kuramochi, A., Kawano, M., Oda, Y., Asada, M., Suzuki, M., Oki, J., & Imamura, T. (2005). Expression of fibroblast growth factors and their receptors

during full-thickness skin wound healing in young and aged mice. *J Endocrinol*, 186(2), 273-289.

Kopp, J., Wang, G. Y., Kulmburg, P., Schultze-Mosgau, S., Huan, J. N., Ying, K., (2004). Accelerated Wound Healing by in Vivo Application of Keratinocytes Overexpressing KGF. *Mol Ther*, 10(1): 86-96.

Kowalske, K.J. (2011). Burn Wound Care. *Phys Med Rehabil Clin N Am*, 22: 213–227

Krejner, A., Litwiniuk, M., Grzela, T. (2016). Matrix metalloproteinases in the wound microenvironment: therapeutic perspectives. *Chronic wound care manag. res.*, Vol: 3, 29–39

Kroeze, K.L., Pronk, J., Kirtschig, G., Boer, E.W., Middelkoop, E., Scheper, R.J., & Gibbs, S. (2012). Chapter 4: Comparison of cytokine, chemokine and growth factor profiles in burn wounds, chronic wounds and surgical excision wounds. <https://research.vumc.nl/files/254965/chapter%204.pdf>

Kumar, V., Abbas, A. K., & Fausto, N. (2009). Robbins & Cotran Pathologic Basis of Disease, 8th Edition. Philadelphia: Saunders Elsevier, USA.

Kwan, P., Desmouliere, A., & Tredget, E. E. (2012). Chapter 45—Molecular and cellular basis of hypertrophic scarring. In: Herndon, D. N. (Ed), *Total burn care* 3rd Ed, pp: 495-505.e5. Philadelphia: Saunders Elsevier, USA.

Ladak, A., & Tredget, E. E. (2009). Pathophysiology and management of the burn scar. *Clin Plast Surg*, 36(4): 661-674.

Lari, A. R., Panjeshahin, M. R., Talei, A. R., Rossignol, A. M., & Alaghenbandan, R. (2002). Epidemiology of childhood burn injuries in Fars Province. *Iran J Burn Care Rehabil*, 23(1): 39-45.

Levy, V., Lindon, C., Zheng, Y., Harfe, B. D., & Morgan, B. A. (2007). Epidermal stem cells arise from the hair follicle after wounding. *FASEB J*, 21(7): 1358-1366.

Li, B., & Wang, J. H. C. (2011). Fibroblasts and myofibroblasts in wound healing: Force generation and measurement. *J Tissue Viability*, 20(4): 108–120.

Li, Y., Zhang, J., Yue, J., Gou, X., & Wu, X. (2017). Epidermal Stem Cells in Skin Wound Healing. *Adv Wound Care*, 6(9): 297–307.

Liu, P., Ke, C., Shu, B., Li, W., Tong, Z., Wang, X., Zhang, Z., Zou, S. (2017). Fuya shangkou liaofa dui laonian tangniaobing kuiyang chuang mian biaopi

ganxibao zengzhi de yingxiang (Effect of negative pressure wound therapy on proliferation of epidermal stem cell in elderly diabetic ulcer wounds). *Zhonghua Sunshang Yu Xiufu Zazhi Dianziban*, 432-436.

Lu, F., Ogawa, R., Nguyen, D.T., Chen, B., Guo, D., Helm, D.L., (2011). Micro deformation of three-dimensional cultured fibroblasts induces gene expression and morphological changes. *Ann. Plast. Surg.* 66, 296–300.

Maghsoudi, H., Monshizadeh, S., & Mesgari, M. (2011). A Comparative Study of the Burn Wound Healing Properties of Saline-Soaked Dressing and *Silver sulfadiazine* in Rats. *Indian J Surg*, 73(1):24–27.

Mahandaru, D., & Seswandhana, R., (2012). The Simplest Modified Vacuum Assisted Closure to Treat Chronic Wound: Serial Case Report. *JPR*, 1(2): 117-122

Malmsjö, M., Gustafsson, L., Lindstedt, S., Gesslein, B., & Ingemansson, R. (2012). The Effects of Variable, Intermitten, and Continuous Negative Pressure Wound Therapy, Using Foam or Gauze, on Wound Contraction, Granulation Tissue Formation, and Ingrowth into the Wound Filler. *ePlasty*, 11: 42-54.

Malmsjö, M., Ingemansson, R., Martin, R., & Huddleston, E. (2009). Negative-pressure wound therapy using gauze or open-cell polyurethane foam: Similar early effects on pressure transduction and tissue contraction in an experimental porcine wound model. *Wound Rep Reg*, 17: 200-205.

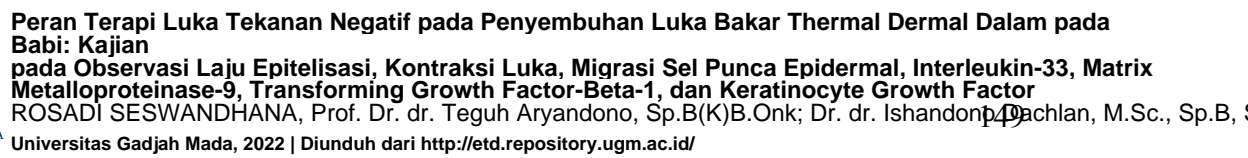
Mansilla, E., Marin, G. H., Drago, H., Sturla, F., Salas, E., Gardiner, C., (2006). Bloodstream cells phenotypically identical to human mesenchymal bone marrow stem cells circulate in large amounts under the influence of acute large skin damage: new evidence for the use in regenerative medicine. *Transplant Proc*, 38(3): 967-969.

Marchant-Forde, J. N., & Herskin, M. S. (2018). Pig as Laboratory Animals. In : Spinka, M. (Ed). *Advances in Pig Welfare*, pp. 445-475. Duxford: Elsevier, UK.

Mashreky, S. R., Rahman, A., Chowdhury, S. M., Giashuddin, S., Svanstrom, L., Linnan, M. (2008). Epidemiology of childhood burn: yield of largest community-based injury survey in Bangladesh. *Burns*, 34(6): 856-862.

McGrath, J. A., Eady, R. A. J., Pope, F. M. (2004). Anatomy and Organization of Human Skin. In Burns, T., Breathnach, S., Cox, N., Griffiths, C. (Eds), *Rook's Textbook of Dermatology* 7th Ed., p. 4190. New Jersey: Blackwell Publishing, USA.

- Millar, N. L., O'Donnell, C., McInnes, I. B., dan Brint, E. (2017). Wounds That Heal and Wounds That Don't – the Role of the IL-33/ST2 Pathway in Tissue Repair and Tumorigenesis. *Semin Cell Dev Biol*, 61, pp. 41-50.
- Mirchandani, A, S., Salmond, R, J., dan Liew, F, Y. (2012). Interleukin-33 and the Function of Innate Lymphoid Cells. *Trends in Immunology*. Vol 33. P. 389-393.
- Mock, C., Peck, M., Peden, M., Krug, E., Ahuja, R., Albertyn, H., (2008). A WHO plan for burn prevention and care. Geneva : World Health Organization.
- Morikawa, M., Derynck, R., Miyazono, K. (2016). TGF- β and the TGF- β Family: Context-Dependent Roles in Cell and Tissue Physiology. *Cold Spring Harb Perspect Biol*, 8:a021873.
- Morykwas, M. J., Faler, B. J., Pearce, D. J., & Argenta, L. C. (2001). Effects of Varying Levels of Subatmospheric Pressure on the Rate of Granulation Tissue Formation in Experimental Wounds in Swine. *Ann Plast Surg*, 47(5): 547-551.
- Morykwas, M. J., Argenta, L. C., Shelton-Brown, E. I., & McGuirt, W. (1997). Vacuum-Assisted Closure: A New Wound Method for Wound Control and Treatment: Animal Studies and Basic Foundation. *Ann Plast Surg*, 38(6): 553-562.
- Motlik, J., Klima, J., Dvorankova, B., & Smetana Jr., K. (2007). Porcine epidermal stem cells as a biomedical model for wound healing and normal/malignant epithelial cell propagation. *Theriogenology*, 67: 105–111.
- Moues, C. M., Vos, M. C., Van Den Bemd G. C. M., Stunen, T., & Hovius, S. E. R. (2004). Bacterial load in relation to vacuum-assisted closure wound therapy: A prospective randomized trial. *Wound Rep Reg*, 12: 11-17.
- Mullen, A. C., & Wrana, J. L. (2017). TGF- β Family Signaling in Embryonic and Somatic Stem Cell Renewal and Differentiation. *Cold Spring Harb Perspect Biol*, 9(7): 1-45.
- Murray, C. J., Lopez, A. D., World Health Organization, World Bank & Harvard School of Public Health. (1996). The Global Burden of disease: a comprehensive assessment of mortality and disability from diseases, injuries, and risk factors in 1990 and projected to 2020: summary / edited by Christopher J. L. Murray, Alan D. Lopez. Geneva: World Health Organization. <http://www.who.int/iris/handle/10665/41864>



- Nakagawa, H., Akita, S., Fukui, M., Fuji, T., Akino, K. (2005). Human mesenchymal stem cells successfully improve skin-substitute wound healing. *Br J Dermatol*, 153(1): 29-36.
- Nolff, M. C., Albert, R., Wohlsein, P., Baumgartner, W., Reese, S., & Meyer-Lindenberg, A. (2018). Histomorphometric evaluation of MMP-9 and CD31 expression during healing under Negative Pressure Wound Therapy in dogs. *Schweiz Arch Tierheilkd*, 160(9): 525-532
- Ojeh, N., Pastar, I., Tomic-Canic, M., & Stojadinovic, O. (2015). Stem Cells in Skin Regeneration, Wound Healing, and Their Clinical Applications. *Int. J. Mol. Sci*, 16: 25476-25501.
- Ono, I. (2002). The effects of basic fibroblast growth factor (bFGF) on the breaking strength of acute incisional wounds. *J Dermatol Sci*, 29(2): 104-113.
- Orgill, D. P. (2009). Excision and skin grafting of thermal burns. *N Engl J Med*, 360: 893-901.
- Pakyari, M., Farrokhi, A., Maharlooee, M. K., & Ghahary, A. (2013). Critical Role of Transforming Growth Factor Beta in Different Phases of Wound Healing. *Adv Wound Care*, 2(5): 215-224.
- Park, K.S., Park, D.H. (2018). The Effect of Korean Red Ginseng on Full-Thickness Skin Wound Healing in Rats. *J Ginseng Res*. 43: 226-235.
- Peck, M. D., Jeschke, M. G., & Collins, A. K. (2017). Epidemiology of burns injuries globally. www.uptodate.com (Accessed on December 2017).
- Peck, M. D., Kruger, G. E., Van der Merwe, A. E., Godakumbra, W., & Ahuja, R.B. (2008). Burns and fires from non-electric domestic appliances in low and middle-income countries Part I. The scope of the problem. *Burns*, 34: 303-311.
- Peck, M., & Pressman, M. A. (2013). The correlation between burn mortality rates from fire and flame and economic status of countries. *Burns*, 39(6): 1054-1059.
- Perdanakusuma, D.S. 2006. Penanganan luka pada luka bakar. In Noer, M.S. (eds). Penanganan luka bakar. Airlangga University Press. Surabaya. p: 83, 89
- Pham, T. N., Girban, N.S., Heimbach, D. M. (2007). Evaluation of the burn wound: Management decisions. In: Herndon, D. (Ed), *Total Burn Care* 4th Ed., p. 119. Philadelphia: Saunders Elsevier, USA.
- Pitt, K. A., dan Stanley, B. (2014). Negative Pressure Wound Therapy: Experience in 45 Dogs. *Vet Surg*, 43(4): 380-387.

- Plikus, M. V., Guerrero-Juarez, C. F., Ito, M., Li, Y. R., Dedhia, P. H., Zheng, Y., (2017). Regeneration of fat cells from myofibroblasts during wound healing. *Science*. 355: 748-752.
- Poon, V. K. M., & Burd, A. (2004). In vitro cytotoxicity of silver: implication for clinical wound care. *Burns*, 30: 140-147.
- Quan, T. E., Cowper, S., Wu, S.P., Bockenstedt, L. K., & Bucala, R. (2004). Circulating fibrocytes: collagen-secreting cells of the peripheral blood. *Int J Biochem Cell Biol*, 36(4): 598-606.
- Rahmanian-Schwarz, A., Willkomm, L., Gonser, P., Hirt, B., & Schaller, H. (2012). A novel option in negative pressure wound therapy (NPWT) for chronic and acute wound care. *Burns*, 38(4): 573-577.
- Ramirez, H., Patel, S. B., & Pastar, I. (2014). The Role of TGF β Signaling in Wound Epithelialization. *Adv Wound Care*, 3(7), 482–491.
- Rangel-Huerta, E., & Maldonado, E. (2017). Transit-Amplifying Cells in the Fast Lane from Stem Cells towards Differentiation. *Stem Cells International*, 1: 1-10
- Rantan, F. A., Ferdiansyah, & Purwadi. (2014). Stem Cell: Mesenchymal, Hematopoietik, Dan Model Aplikasi Edisi Kedua. *Airlangga University Press (AUP)*, ISBN 978-602-7924-69-7.
- Rasulov, M. F., Vasilchenkov, A.V., Onishchenko, N.A., Krashennnikov, M. E., Kravchenko, V. I, (2005). First experience of the use bone marrow mesenchymal stem cells for the treatment of a patient with deep skin burns. *Bull Exp Biol Med*; Jan 13.
- Resadita, R., Purnomo, E., dan Seswandhana, M.R. (2021). Efek Terapi Tekanan Negatif Terhadap Penutupan Luka dan Angka Kuman pada Model Babi Yorkshire Dengan Luka Bakar Dermal Dalam [Thesis, Universitas Gadjah Mada]
- Reiss, M.J., Han, Y.P., Garcia, E., Goldberg, M., Hong, Y.K., Garner, W.L. (2010). Matrikx Metalloproteinase-9 Delays Wound Healing in a Murine Wound Model. National Institutes of Health. *Surgery*, 147(2): 295
- Rice, P. L., Orgill, D. P., Jeschke, M. G., & Collins, K. A. (2017). Classification of burn injury. www.uptodate.com (Accessed on December 2017).

- Rorison, P., Thomlinson, A., Hassan, Z., Roberts, S. A., Ferguson, M. W., Shah, M., (2010). Longitudinal changes in plasma transforming growth factor beta-1 and post-burn scarring in children. *Burns*, 36(1): 89-96.
- Rose, L. F., & Chan, R. K. (2017). The Burn Wound Microenvironment. *Adve Wound Care*, 5(3): 106-118.
- Rozario, T., & Desimone, D. W. (2010). The extracellular matrix in development and morphogenesis: a dynamic view. *Dev Biol*, 341(1): 126-140
- Sander, A. L., Henrich, D., Muth, C. M., Marzi, I., Barker, J. H., & Frank J. M. (2009). In vivo effect of hyperbaric oxygen on wound angiogenesis and epithelialization. *Wound Repair Regen*, 17(2): 179-184.
- Seaton, M., Hocking A., Gibran, N. S. (2015). Porcine Models of Cutaneous Wound Healing. *ILAR Journal*, 56(1): 127-138.
- Seswandhana, M. R., Anzhari, S., Dachlan, I., Wirohadidjojo, Y. W., Aryandono, T. (2020). A case series of negative pressure wound therapy as a promising treatment in patients with burn injury. *Int J Surg Case Rep*, 69: 64–67
- Seswandhana R., Anzhari S., Ghozali A., Dachlan I., Wirohadidjojo Y.W., Aryandono T. (2021). A modified method to create a porcine deep dermal burn model. *Ann Burns Fire Disasters*, 34(2): 187–191
- Sheu, S. H., Wang, W. L., Fu, Y. T., Lin, S. C., Lei, Y. C., Liao, J. H., (2014). The pig as an experimental model for mid-dermal burns research. *Burns*, 40: 1679-1688.
- Simonetti, O., Lucarini, G., Cirioni, O., Zizzi, A., Orlando, F., Provinciali, M., (2013). Delayed wound healing in aged skin rat models after thermal injury is associated with an increased MMP-9, K6, an CD 44 expression. *Burns*, 39(4): 776-787.
- Sponheim, J., Pollheimer, J., Olsen, T., Balogh, J., Hammarström, C., Loos, T., Kasprzycka, M., Sørensen, D. R., Nilsen, H. R., Kuchler, A. M., Vatn, M. H., & Haraldsen, G. (2010). Inflammatory bowel disease-associated interleukin-33 is preferentially expressed in ulceration-associated myofibroblasts. *Am J Pathol.*, 177(6), 2804–2815.
- Stenn, K. S., & Depalma, L. (1996). Re-epithelialization. In: Clark, R. A. (Ed), *The molecular and cellular biology of wound repair* 2nd Ed., pp. 321-335. New York: Plenum Press.

- Strudwick, X., Cowin, A.J. (2018). The Role of the Inflammatory Response in Burn Injury, in Kartal, S.P.[Ed]: Hot Topics in Burn Injuries,. *IntechOpen Book Series*, 3: 37-50. DOI: 10.5772/intechopen.71330.
- Suh, H., Lee, A., Park, E. J., & Hong, J. P. (2016). Negative Pressure Wound Therapy on Closed Surgical Wound with Dead Space. *Ann Plast Surg*, 76(6): 717-722.
- Sukmawati, D., Eryani, A., & Damayanti, L. (2019). *Silver sulfadiazine's* Effect on Keratine-19 Expression as Stem Cell Marker in Burn Wound Healing. *BioMedicine*, 10(2): 5-11.
- Tan, J., & Wu, J. 2017. Current Progress in Understanding the Molecular Pathogenesis of Burn Scar Contracture. *Burns Trauma*, 5(14): 1-6.
- Tredget, E. E., Lebi, B., & Donelan, M.B. (2014). Biology and Principles of Scar Management and Burn Reconstruction. *Surg Clin North Am*, 94(4): 793-815.
- Tredget, E. E., Yang, L., Delehanty, M., Shankowsky, H., & Scott, P.G. (2006). Polarized Th2 cytokine production in patients with hypertrophic scar following thermal injury. *J Interferon Cytokine Res*, 26(3): 179-189.
- Ukong, S., Ampawong, S., & Kengkoom, K. (2008). Collagen Measurement and Staining Pattern of Wound Healing Comparison with Fixations and Stains. *Microsc. Microanal. Res.*, 22: 37-41.
- Uyanik, G.K., and Guler, N. (2013). A Study on multiple linier regression analysis. *Procedia – Social and Behavioral Sciences*, 106: 234-240.
- Van der Veer, W. M., Bloemen, M. C., Ulrich, M. M., Molema, G., van Zuijlen, P. P., Middelkoop, E., (2009). Potential cellular and molecular causes of hypertrophic scar formation. *Burns*, 35(1): 15-29.
- Wall, S., & Murphy, G. (2000). Matrix metalloproteinase expression in impaired wound healing. *Int J Exp Pathol.*, 81(1), A27–A28.
- Walsh, K., Nikkhah, D., Dheansa, B. 2013. Burn Scar Contractures & Their Management. *Plastic & Reconstructive Surgery*. p 24-29.
- Wang, M. (2014). Review Article: Generalized Estimating Equations in Longitudinal Data Analysis: A Review and Recent Developments. *Advances in Statistics*. Volume 2014, Article ID 303728, 11 pages. <http://dx.doi.org/10.1155/2014/303728>

- Wang, X. J., Hang, G., Owens, P., Siddiqui, Y., Li, A. G. (2006). Role of TGF β -Mediated Inflammation in Cutaneous Wound Healing. *J Invest Dermatol Symp Proc*, 11: 112-115.
- Wardhana, A., Basuki, A., Prameswara, A. D. H., Rizkita, D. N., Andarie, A. A., & Canintika, A. F. (2017). The epidemiology of burns in Indonesia's national referral burn center from 2013 to 2015. *Burns Open*, 1: 67-73.
- Webster, J., Scuffham, P., Stankiewicz, M., & Chaboyer, W. P. (2014). Negative pressure wound therapy for skin grafts and surgical wounds healing by primary intention (Review). *Cochrane Database of Systematic Reviews*, 10: 1-65.
- WHO. (2012). WHO biennial report 2010/2011: violence, injury and disability: 20. Geneva: Swiss.
- WHO. (2014). WHO Health Estimates 2014 Summary Tables: Deaths and Global Burden of Disease. Geneva: Swiss.
- Wipff, P. J., Rifkin, D. B., Meister, J. J., & Hinz, B. (2007). Myofibroblast contraction activates latent TGF-beta1 from the extracellular matrix. *J Cell Biol*, 179(6): 1311–1323.
- Wosgrau, A. C. C., Jeremias, T. S., Leonardi, D. F., Pereima, M. J., Giunta, G. D., & Trentin, A. G. (2015). Comparative Experimental Study of Wound Healing in Mice: Pelnac versus Integra. *Plos One*, 10(3): 1-10
- Wu, Y., Chen, L., Scott, P. G., & Tredget, E. E. (2007). Mesenchymal stem cell enhance wound healing through differentiation and angiogenesis. *Stem Cells*, 25(10): 2648-2659.
- Wysocki, A. B., Staiano-Coico, L., & Grinnell, F. (1993). Wound fluid from chronic leg ulcers contains elevated levels of metalloproteinases MMP-2 and MMP-9. *J Invest Dermatol.*, 101(1), 64–68.
- Xu, Y., Hong, Y., Xu, M., Ma, K., Fu, X., Zhang, M., and Wang, G. (2016). Role of Keratinocyte Growth Factor in the Differentiation of Sweat Gland-Like Cells From Human Umbilical Cord-Derived Mesenchymal Stem Cells. *Stem Cells Transl. Med.*, Vol 5:106–116
- Yagami, A., Orihara, K., Morita, H., Futamura, K., Hashimoto, N., Matsumoto, K., Saito, H., dan Matsuda, A. (2010). IL-33 Mediates Inflammatory Responses in Human Lung Tissue Cells. *J Immunol.* 5743-5749.
- Yamaguchi, R., Takami, Y., Yamaguchi, Y., & Shimazaki, S. (2007). Bone marrow-derived myofibroblasts recruited to the upper dermis appear beneath

regenerating epidermis after deep dermal burn injury. *Wound Repair Regen*, 15(1): 87-93.

Yang, L., Scott, P. G., Dodd, C., Medina, A., Jiao, H., Shankowsky, H. A., (2005). Identification of fibrocytes in postburn hypertrophic scar. *Wound Repair Regen*, 13(4): 398-404.

Yang, R. H., Qi, S. H., Shu, B., Ruan, S. B., Lin, Z. P., Lin, Y., (2016). Epidermal stem cells (ESCs) accelerate diabetic wound healing via the Notch signalling pathway. *Biosci Rep*, 36(4): 1-7.

Yang, S. L., Zhu, L. Y., Han, R., Sun, L. L., & Dou, J. T. (2017). Effect of Negative Pressure Wound Therapy on Cellular Fibronectin and Transforming Growth Factor- β 1 Expression in Diabetic Foot Wounds. *Foot Ankle Int*, 38(8), 893–900.

Yin, H., Li, X., Hu, S., Liu, T., Yuan, B., Gu, H. (2013). IL-33 accelerates cutaneous wound healing involved in upregulation of alternatively activated macrophages. *Mol Immunol*, 56(4): 347-353.

Yu, G., Li, Y., Ye, L., Wang, X., Zhang, J., Dong, Z., Jiang, D. (2017). Exogenous Peripheral Blood Mononuclear Cells Affect the Healing Process of Deep-Degree Burns. *Mol Med Rep*, 16: 8110—8122.

Zhou, X., Li, G., Wang, D., Sun, X., & Li, X. (2018). Cytokeratin expression in epidermal stem cell in skin adnexal tumors. *Oncol Lett*, 17(1): 927-932.

Zhu, J., Yu, A., Qi, B., Li, Z., & Hu, X. (2014). Effects of Negative Pressure Wound Therapy on Mesenchymal Stem Cells Proliferation and Osteogenic Differentiation in a Fibrin Matrix. *Plos One*, 9(9): 1-9.