

## REFERENCES

- Abunasef, S., Amin, H. and Abdel-Hamid, G. (2014). A histological and immunohistochemical study of beta cells in streptozotocin diabetic rats treated with caffeine. *Folia Histochemica et Cytobiologica*, 52(1), 42-50.
- Ahmadi, S., Karimian, S., Sotoudeh, M., Bahadori, M. and Dehghani, G. (2010). Pancreatic Islet Beta Cell Protective Effect of Oral Vanadyl Sulphate in Streptozotocin-induced Diabetic Rats, an Ultrastructure Study. *Pakistan Journal of Biological Sciences*, 13(23), 1135-1140.
- Azarpira, N. (2015). The Role of Mesenchymal Stem Cells in Diabetes Mellitus. *International Journal of Stem Cell Research & Therapy*, 2(2).
- American Diabetes Association (ADA). (2009). Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care*, 33(Supplement\_1), 62-69.
- American Diabetes Association (ADA). (2017). Management of Diabetes Mellitus.
- Bhansali, A., Asokumar, P., Walia, R., Bhansali, S., Gupta, V., Jain, A., Sachdeva, N., Sharma, R., Marwaha, N. and Khandelwal, N. (2014). Efficacy and Safety of Autologous Bone Marrow-Derived Stem Cell Transplantation in Patients with Type 2 Diabetes Mellitus: A Randomized Placebo-Controlled Study. *Cell Transplantation*, 23(9), 1075-1085.
- Branitamahisi, B. (2017). *Pengaruh Media Terkondisi Sel Punca Mesensimal Terhadap Ekspresi Tirosin Terfosforilasi Insulin Receptor Substrate 1 (Irs-1tyr612) Tikus Model Diabetes Melitus Tipe 2*. Yogyakarta: Universitas Gadjah Mada.
- Buppajarntham, S. (2014). *Insulin: Reference Range, Interpretation, Collection and Panels*. [online] Emedicine.medscape.com. Available at: <https://emedicine.medscape.com/> [Accessed 6 Feb. 2018].
- Campbell-Thompson, M., Heiple, T., Montgomery, E., Zhang, L. and Schneider, L. (2012). Staining Protocols for Human Pancreatic Islets. *Journal of Visualized Experiments*, 63.
- Chen, C., Cohrs, C., Stertmann, J., Bozsak, R. and Speier, S. (2017). Human beta cell mass and function in diabetes: Recent advances in knowledge and technologies to understand disease pathogenesis. *Molecular Metabolism*, 6(9), 943-957.

- Dang, L., Phan, N. and Truong, K. (2017). Mesenchymal stem cells for diabetes mellitus treatment: new advances. *Biomedical Research and Therapy*, 4(1), 1062-1081.
- Dave, S. D., Trivedi, H. L., Gopal, S. C., and Chandra, T. (2014). Combined therapy of insulin-producing cells and haematopoietic stem cells offers better diabetic control than only haematopoietic stem cells' infusion for patients with insulin-dependent diabetes. *BMJ Case Reports*, 2014, bcr2013201238.
- El-Badawy A, El-Badri N. (2016). *Clinical Efficacy of Stem Cell Therapy for Diabetes Mellitus: A Meta-Analysis*. PLoS ONE 11(4): e0151938.
- Forouhi, N. and Wareham, N. (2014). Epidemiology of Diabetes. *Medicine*, 42(12), 698-702.
- Ghasemi, A., Khalifi, S. and Jedi, S. (2014). Streptozotocin-nicotinamide-induced rat model of type 2 diabetes (review). *Acta Physiologica Hungarica*, 101(4), 408-420.
- Guariguata, L., Whiting, D., Hambleton, I., Beagley, J., Linnenkamp, U. and Shaw, J. (2014). Global estimates of diabetes prevalence for 2013 and projections for 2035.
- Kahn, S., Cooper, M. and Del Prato, S. (2014). Pathophysiology and treatment of type 2 diabetes: perspectives on the past, present, and future. *The Lancet*, 383(9922), 1068-1083.
- Kusuma, I. (2017). *Pengaruh Media Terkondisi Sel Punca Mesensimal Terhadap Ekspresi Gen Peroxisome Proliferator Activated Receptor- $\gamma$  (PPAR- $\gamma$ ) Tikus Model Diabetes Tipe 2*. Yogyakarta: Universitas Gadjah Mada.
- Laqif, A. (2015). *Kajian Terapi Media Terkondisi Sel Punca Mesensimal (MT-SPM) Selaput Amnion Pada Kasus Kegagalan Ovarium Prematur*. Yogyakarta: Fakultas Kedokteran UGM.
- Marchetti, P., Bugliani, M., De Tata, V., Suleiman, M. and Marselli, L. (2017). Pancreatic Beta Cell Identity in Humans and the Role of Type 2 Diabetes. *Frontiers in Cell and Developmental Biology*, 5.
- Marín-Peñalver, J., Martín-Timón, I., Sevillano-Collantes, C. and Cañizo-Gómez, F. (2016). Update on the treatment of type 2 diabetes mellitus. *World Journal of Diabetes*, 7(17), 354.

- McCulloch, D. (2017). *Patient education: Diabetes mellitus type 2: Overview (Beyond the Basics)*. [online] Uptodate.com. Available at: <https://www.uptodate.com/contents/diabetes-mellitus-type-2-overview-beyond-the-basics> [Accessed 5 Feb. 2018].
- Mihardja, L., Soetrisno, U. and Soegondo, S. (2013). Prevalence and clinical profile of diabetes mellitus in productive aged urban Indonesians. *Journal of Diabetes Investigation*, 5(5), 507-512.
- Morino, K., Petersen, K. F., Sono, S., Choi, C. S., Samuel, V. T., Lin, A., Shulman, G. I. (2012). Regulation of Mitochondrial Biogenesis by Lipoprotein Lipase in Muscle of Insulin-Resistant Offspring of Parents With Type 2 Diabetes. *Diabetes*, 61(4), 877-887.
- Nanditha, A., Ma, R., Ramachandran, A., Snehalatha, C., Chan, J., Chia, K., Shaw, J. and Zimmet, P. (2016). Diabetes in Asia and the Pacific: Implications for the Global Epidemic. *Diabetes Care*, 39(3), 472-485.
- Olatunbosun, S. (2017). *Insulin Resistance: Pathophysiology*. [online] Emedicine.medscape.com. Available at: <https://emedicine.medscape.com/> [Accessed 6 Feb. 2018].
- Owen, B., Mangelsdorf, D. and Kliewer, S. (2015). Tissue-specific actions of the metabolic hormones FGF15/19 and FGF21. *Trends in Endocrinology & Metabolism*, 26(1), 22-29.
- Pagliuca, F. and Melton, D. (2013). How to make a functional  $\beta$ -cell. *Development*, 140(12), 2472-2483.
- Pawitan, J. (2014). Prospect of Stem Cell Conditioned Medium in Regenerative Medicine. *BioMed Research International*, 2014, 1-14.
- Qiu, W., Zhang, Y., Feng, Y., Li, L., Yang, L. and Xu, C. (2017). Deciphering Pancreatic Islet  $\beta$  Cell and  $\alpha$  Cell Maturation Pathways and Characteristic Features at the Single-Cell Level. *Cell Metabolism*, 25(5), 1194-1205.
- Ramachandran, A. (2012). Trends in prevalence of diabetes in Asian countries. *World Journal of Diabetes*, 3(6), 110.
- Robertson, R. (2016). *Pancreatic Beta Cell Function*. [online] Uptodate.com. Available at: <https://www.uptodate.com/contents/pancreatic-beta-cell-function> [Accessed 27 Nov. 2018].
- Rudijanto, A., Soewondo, P., Waspadji, S., Yunir, E. and Purnamasari, D. (2011). The Indonesian Society of Endocrinology's Summary Article of Diabetes Mellitus National Clinical Practice Guidelines.

- Santiko, A. (2018). *Pengaruh Media Terkondisi Sel Punca Mesenkimal Terhadap Sensitivitas Insulin Berdasarkan Nilai HOMA-S pada Tikus Model Diabetes Melitus Tipe 2*. Yogyakarta: FKMK Universitas Gadjah Mada.
- Soewondo, P., Ferrario, A. and Tahapary, D. (2013). Challenges in diabetes management in Indonesia: a literature review. *Globalization and Health*, 9(1), 63.
- Song, Z., Fusco, J., Zimmerman, R., Fischbach, S., Chen, C., Ricks, D., Prasad, K., Shiota, C., Xiao, X. and Gittes, G. (2016). Epidermal Growth Factor Receptor Signaling Regulates  $\beta$  Cell Proliferation in Adult Mice. *Journal of Biological Chemistry*, 291(43), 22630-22637.
- Suzuki, T., Dai, P., Hatakeyama, T., Harada, Y., Tanaka, H., Yoshimura, N. and Takamatsu, T. (2013). TGF- $\beta$  Signaling Regulates Pancreatic  $\beta$ -Cell Proliferation through Control of Cell Cycle Regulator p27 Expression. *Acta Histochemica Et Cytochemica*, 46(2), 51-58.
- Taylor, R. (2012). Insulin Resistance and Type 2 Diabetes. *Diabetes*, 61(4), 778–779.
- Vujira, K. (2018). *The Correlation Between Weight and The Level of Serum Insulin in Type 2 Diabetes Rats Model Treated with Conditioned Medium of Mesenchymal Stem Cell*. Yogyakarta: FKMK Universitas Gadjah Mada.
- Wang, C., Guan, Y., and Yang, J. (2010). Cytokines in the Progression of Pancreatic  $\beta$ -Cell Dysfunction. *International Journal of Endocrinology*, 2010, 515136.
- Watada, H. (2010). Role of VEGF-A in Pancreatic Beta Cells. *Endocrine Journal*, 57(3), 185-191.
- Wehbe, T., Hawat, T. 2017. *Type 2 Diabetes Mellitus and Stem Cell Therapy: A Review*, 5(1), 111-117.
- Whiting, D., Guariguata, L., Weil, C. and Shaw, J. (2011). IDF Diabetes Atlas: Global estimates of the prevalence of diabetes for 2011 and 2030.
- Who.int. (2018). *WHO | Diabetes mellitus*. [online] Available at: <http://www.who.int/mediacentre/factsheets/fs138/en/> [Accessed 15 Jan. 2018].

- Who.int. (2016). *WHO | Global Report on Diabetes*. [online] Available at: <http://apps.who.int/> [Accessed 15 Jan. 2018].
- Widhiastuti, S. (2017). *Pengaruh Media Terkondisi Sel Punca Mesensimal Terhadap Ekspresi Gen Transcription Factor 7-Like 2 (TCF7L2) Tikus Model Diabetes Melitus Tipe 2*. Yogyakarta: Universitas Gadjah Mada.
- Xiang, J., Hu, J., Shen, T., Liu, B., Hua, F., Zan, K., Zu, J., Cui, G. and Ye, X. (2017). Bone marrow mesenchymal stem cells-conditioned medium enhances vascular remodeling after stroke in type 2 diabetic rats. *Neuroscience Letters*, 644, 62-66.
- Xiao, X., Gaffar, I., Guo, P., Wiersch, J., Fischbach, S., Peirish, L., Song, Z., El-Gohary, Y., Prasad, K., Shiota, C. and Gittes, G. (2014). M2 macrophages promote beta-cell proliferation by up-regulation of SMAD7. *Proceedings of the National Academy of Sciences*, 111(13), 1211-1220.
- Xiao, X., Wiersch, J., El-Gohary, Y., Guo, P., Prasad, K., Paredes, J., Welsh, C., Shiota, C. and Gittes, G. (2012). TGF Receptor Signaling is Essential for Inflammation-Induced  $\beta$ -Cell but Not Workload-Induced  $\beta$ -Cell Proliferation. *Diabetes*, 62(4), 1217-1226.
- Zang, L., Hao, H., Liu, J., Li, Y., Han, W. and Mu, Y. (2017). Mesenchymal stem cell therapy in type 2 diabetes mellitus. *Diabetology & Metabolic Syndrome*, 9(1), 3-6.