

DAFTAR PUSTAKA

- [1] S. Jadhav, G. Vaidya, and A. Vora, "A review on computational tools for antidiabetic herbs research," *Discover Chemistry*, vol. 2, no. 1, p. 80, April 2025.
- [2] S. Alam and et al., "Antidiabetic phytochemicals from medicinal plants: Prospective candidates for new drug discovery and development," *Frontiers in Endocrinology*, vol. 13, February 2022.
- [3] M. Yang and et al., "A network pharmacology approach to uncover the molecular mechanisms of herbal formula ban-xia-xie-xin-tang," *Evidence-Based Complementary and Alternative Medicine*, vol. 2018, p. 4050714, July 2018.
- [4] A. Soofi and et al., "Centrality analysis of protein-protein interaction networks and molecular docking prioritize potential drug-targets in type 1 diabetes," *Iranian Journal of Pharmaceutical Research*, vol. 19, no. 4, pp. 121–134, 2020.
- [5] M. Ashtiani and et al., "A systematic survey of centrality measures for protein-protein interaction networks," *BMC Systems Biology*, vol. 12, no. 1, p. 80, December 2018.
- [6] A. Viacava Follis, "Centrality of drug targets in protein networks," *BMC Bioinformatics*, vol. 22, no. 1, p. 527, October 2021.
- [7] A. L. Hopkins, "Network pharmacology: the next paradigm in drug discovery," *Nature Chemical Biology*, vol. 4, no. 11, pp. 682–690, 2008.
- [8] F. Mauvais and P. M. van Endert, "Type 1 diabetes: A guide to autoimmune mechanisms for clinicians," *Diabetes, Obesity and Metabolism*, vol. 27, no. S6, pp. 40–56, August 2025.
- [9] M. A. Atkinson, B. O. Roep, A. Posgai, D. C. S. Wheeler, and M. Peakman, "The challenge of modulating β -cell autoimmunity in type 1 diabetes," *Lancet Diabetes & Endocrinology*, vol. 7, no. 1, pp. 52–64, January 2019.
- [10] K. I. Aamodt and A. C. Powers, "The pathophysiology, presentation and classification of type 1 diabetes," *Diabetes, Obesity and Metabolism*, vol. 27, no. Suppl 6, pp. 15–27, August 2025.
- [11] P. Rorsman and F. M. Ashcroft, "Pancreatic β -cell electrical activity and insulin secretion: Of mice and men," *Physiological Reviews*, vol. 98, no. 1, pp. 117–214, January 2018.

- [12] J. E. Campbell and C. B. Newgard, "Mechanisms controlling pancreatic islet cell function in insulin secretion," *Nature Reviews Molecular Cell Biology*, vol. 22, no. 2, pp. 142–158, February 2021.
- [13] M. D. Maheshvare, S. Raha, M. König, and D. Pal, "A pathway model of glucose-stimulated insulin secretion in the pancreatic β -cell," *Frontiers in Endocrinology*, vol. 14, p. 1185656, 2023.
- [14] M. J. Haller and et al., "Ispad clinical practice consensus guidelines 2024: Screening, staging, and strategies to preserve beta-cell function in children and adolescents with type 1 diabetes," *Hormone Research in Paediatrics*, vol. 97, no. 6, pp. 529–545, 2024.
- [15] A. L. J. Carr and et al., "Histological validation of a type 1 diabetes clinical diagnostic model for classification of diabetes," *Diabetic Medicine*, vol. 37, no. 12, pp. 2160–2168, December 2020.
- [16] P. Leete and et al., "Studies of insulin and proinsulin in pancreas and serum support the existence of aetiopathological endotypes of type 1 diabetes associated with age at diagnosis," *Diabetologia*, vol. 63, no. 6, pp. 1258–1267, June 2020.
- [17] B. O. Roep, S. Thomaïdou, R. van Tienhoven, and A. Zaldumbide, "Type 1 diabetes mellitus as a disease of the β -cell (do not blame the immune system?)," *Nature Reviews Endocrinology*, vol. 17, no. 3, pp. 150–161, March 2021.
- [18] G. Christoffersson and M. von Herrath, "Regulatory immune mechanisms beyond regulatory t cells," *Trends in Immunology*, vol. 40, no. 6, pp. 482–491, June 2019.
- [19] J. A. Bluestone, J. H. Buckner, and K. C. Herold, "Immunotherapy: Building a bridge to a cure for type 1 diabetes," *Science*, vol. 373, no. 6554, pp. 510–516, July 2021.
- [20] Z. Xie, C. Chang, G. Huang, and Z. Zhou, "The role of epigenetics in type 1 diabetes," in *Advances in Experimental Medicine and Biology*, 2020, vol. 1253, pp. 223–257.
- [21] E. K. Sims and et al., "Teplizumab improves and stabilizes beta cell function in antibody-positive high-risk individuals," *Science Translational Medicine*, vol. 13, no. 583, March 2021.
- [22] M. Garofolo and et al., "Microvascular complications burden (nephropathy, retinopathy and peripheral polyneuropathy) affects risk of major vascular events and all-cause mortality in type 1 diabetes: a 10-year follow-up study," *Cardiovascular Diabetology*, vol. 18, no. 1, p. 159, November 2019.

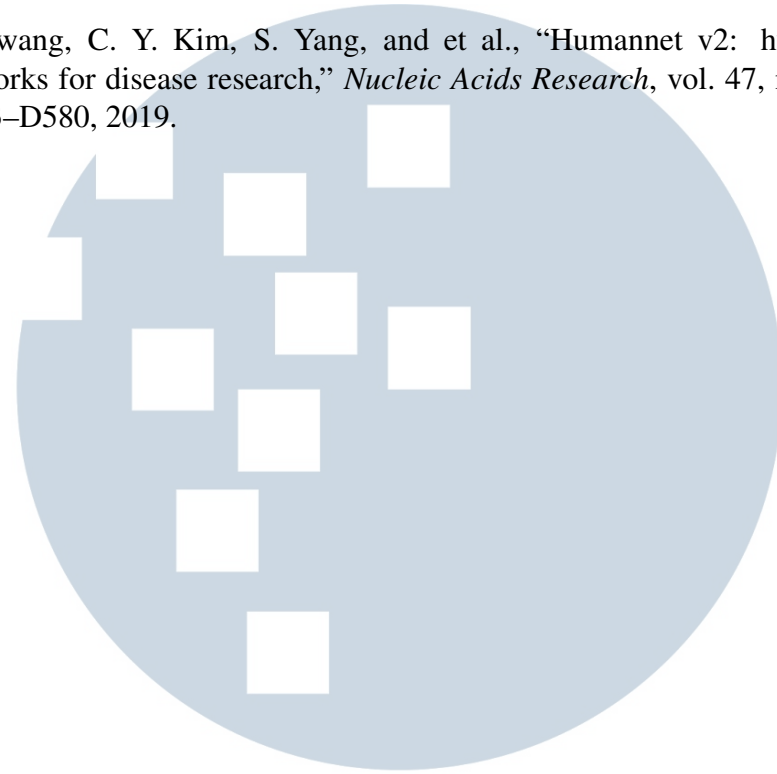
- [23] K. K. Dhatariya, N. S. Glaser, E. Codner, and G. E. Umpierrez, "Diabetic ketoacidosis," *Nature Reviews Disease Primers*, vol. 6, no. 1, p. 40, May 2020.
- [24] G. A. Gregory and et al., "Global incidence, prevalence, and mortality of type 1 diabetes in 2021 with projection to 2040: a modelling study," *Lancet Diabetes & Endocrinology*, vol. 10, no. 10, pp. 741–760, October 2022.
- [25] PLOS Global Public Health Staff, "Correction: Variation in the incidence of type 1 diabetes mellitus in children and adolescents by world region and country income group: A scoping review," *PLOS Global Public Health*, vol. 4, no. 6, p. e0003398, 2024.
- [26] K. J. Bell and S. J. Lain, "The changing epidemiology of type 1 diabetes: A global perspective," *Diabetes, Obesity and Metabolism*, vol. 27, no. S6, pp. 3–14, August 2025.
- [27] L. A. DiMeglio, C. Evans-Molina, and R. A. Oram, "Type 1 diabetes," *Lancet*, vol. 391, no. 10138, pp. 2449–2462, June 2018.
- [28] M. Kibble, N. Saarinen, J. Tang, K. Wennerberg, S. Mäkelä, and T. Aittokallio, "Network pharmacology applications to map the unexplored target space and therapeutic potential of natural products," *Natural Product Reports*, vol. 32, no. 8, pp. 1249–1266, 2015.
- [29] N. A. ElSayed and et al., "12. retinopathy, neuropathy, and foot care: Standards of care in diabetes—2025," *Diabetes Care*, vol. 48, no. Supplement 1, pp. S252–S265, January 2025.
- [30] C. Evans-Molina and et al., "The heterogeneity of type 1 diabetes: implications for pathogenesis, prevention, and treatment-2024 diabetes, diabetes care, and diabetologia expert forum," *Diabetologia*, vol. 68, no. 9, pp. 1859–1878, September 2025.
- [31] S. S. Renner, "Bitter melon from africa expanded to southeast asia and was domesticated there: A new insight from parallel studies," *Proceedings of the National Academy of Sciences*, vol. 117, no. 40, pp. 24 630–24 631, October 2020.
- [32] S. F. Oyelere and et al., "A detailed review on the phytochemical profiles and anti-diabetic mechanisms of momordica charantia," *Heliyon*, vol. 8, no. 4, p. e09253, April 2022.
- [33] Mahwish and et al., "Bitter melon (momordica charantia l.) fruit bioactives charantin and vicine potential for diabetes prophylaxis and treatment," *Plants*, vol. 10, no. 4, p. 730, April 2021.
- [34] Y. H. Lee and et al., "Metabolite profile of cucurbitane-type triterpenoids of bitter melon (fruit of momordica charantia) and their inhibitory activity

against protein tyrosine phosphatases relevant to insulin resistance,” *Journal of Agricultural and Food Chemistry*, vol. 69, no. 6, pp. 1816–1830, February 2021.

- [35] T. Visuvanathan, L. T. L. Than, J. Stanslas, S. Y. Chew, and S. Vellasamy, “Revisiting trigonella foenum-graecum l.: Pharmacology and therapeutic potentialities,” *Plants*, vol. 11, no. 11, p. 1450, May 2022.
- [36] D. K. Sarker, P. Ray, A. K. Dutta, R. Rouf, and S. J. Uddin, “Antidiabetic potential of fenugreek (trigonella foenum-graecum): A magic herb for diabetes mellitus,” *Food Science & Nutrition*, vol. 12, no. 10, pp. 7108–7136, October 2024.
- [37] M. Baset and et al., “Anti-diabetic effects of fenugreek (trigonella foenum-graecum): A comparison between oral and intraperitoneal administration—an animal study,” *International Journal of Functional Nutrition*, May 2020.
- [38] M. S. Popoviciu, N. Kaka, Y. Sethi, N. Patel, H. Chopra, and S. Cavalu, “Type 1 diabetes mellitus and autoimmune diseases: A critical review of the association and the application of personalized medicine,” *Journal of Personalized Medicine*, vol. 13, no. 3, p. 422, 2023.
- [39] L. Pinzi and G. Rastelli, “Molecular docking: Shifting paradigms in drug discovery,” *International Journal of Molecular Sciences*, vol. 20, no. 18, p. 4331, 2019.
- [40] P. H. M. Torres, A. C. R. Sodero, P. Jofily, and F. P. Silva-Jr, “Key topics in molecular docking for drug design,” *International Journal of Molecular Sciences*, vol. 20, no. 18, p. 4574, 2019.
- [41] G. B. Zhang, Q. Y. Li, Q. L. Chen, and S. B. Su, “Network pharmacology: a new approach for chinese herbal medicine research,” *Evidence-Based Complementary and Alternative Medicine*, vol. 2013, p. 621423, 2013.
- [42] S. Li and B. Zhang, “Traditional chinese medicine network pharmacology: theory, methodology and application,” *Chinese Journal of Natural Medicines*, vol. 11, no. 2, pp. 110–120, 2013.
- [43] A. L. Barabási, N. Gulbahce, and J. Loscalzo, “Network medicine: a network-based approach to human disease,” *Nature Reviews Genetics*, vol. 12, no. 1, pp. 56–68, 2011.
- [44] E. K. Silverman and J. Loscalzo, “Network medicine approaches to the genetics of complex diseases,” *Discovery Medicine*, vol. 14, no. 75, pp. 143–152, 2012.
- [45] P. Csermely, T. Korcsmáros, H. J. M. Kiss, G. London, and R. Nussinov, “Structure and dynamics of molecular networks: a novel paradigm of drug

discovery: a comprehensive review,” *Pharmacology & Therapeutics*, vol. 138, no. 3, pp. 333–408, 2013.

- [46] S. Hwang, C. Y. Kim, S. Yang, and et al., “Humannet v2: human gene networks for disease research,” *Nucleic Acids Research*, vol. 47, no. D1, pp. D573–D580, 2019.



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