DAFTAR PUSTAKA

Abdulazeez, J., Zainab, M., & Muhammad, A. (2022). Probiotic (protexin) modulates glucose level in sucrose-induced hyperglycaemia in Harwich strain Drosophila melanogaster. *Bulletin of the National Research Centre*, *46*(1), 221.

Ahmadifar, E., Mohammadzadeh, S., Kalhor, N., Salehi, F., Eslami, M., Zaretabar, A., Moghadam, M. S., Hoseinifar, S. H., & Van Doan, H. (2022). Effects of caffeic acid on the growth performance, growth genes, digestive enzyme activity, and serum immune parameters of beluga (Huso huso). *Journal of Experimental Zoology Part A: Ecological and Integrative Physiology*, *337*(7), 715-723.

Aijaz, M., Keserwani, N., Yusuf, M., Ansari, N. H., Ushal, R., & Kalia, P. (2022). Chemical, biological, and pharmacological prospects of caffeic acid. *Biointerface Res. Appl. Chem*, *13*, 324.

Akhlaghipour, I., Shad, A. N., Askari, V. R., Maharati, A., & Rahimi, V. B. (2023). How caffeic acid and its derivatives combat diabetes and its complications: A systematic review. *Journal of Functional Foods*, *110*, 105862.

Amengor, C. D. K., Biniyam, P. D., Brobbey, A. A., Kekessie, F. K., Zoiku, F. K., Hamidu, S., Gyan, P., & Abudey, B. M. (2024). N-Substituted Phenylhydrazones Kill the Ring Stage of Plasmodium falciparum. *BioMed Research International*, *2024*(1), 6697728.

Ansari, P., Akther, S., Hannan, J., Seidel, V., Nujat, N. J., & Abdel-Wahab, Y. H. (2022). Pharmacologically active phytomolecules isolated from traditional antidiabetic plants and their therapeutic role for the management of diabetes mellitus. *Molecules*, *27*(13), 4278.

Asfa, N., Widianto, A. S., Pratama, M. K. A., Rosa, R. A., Mu'arif, A., Yulianty, R., & Nainu, F. (2023). Curcumin-mediated gene expression changes in Drosophila melanogaster. *Pharmacy Education*, *23*(2), 84-91.

Baenas, N., & Wagner, A. E. (2022). Drosophila melanogaster as a model organism for obesity and type-2 diabetes mellitus by applying high-igh-fat diets. *Biomolecules*, *12*(2), 307.

alle-Claux, G., Touaibia, M., & Rupasinghe, H. V. (2014). ıısive effect of caffeic acid and its analogs through dual tensin–aldosterone system inhibition. *European Journal ology*, *730*, 125-132.

Cakir, M., Altunbas, H., & Karayalcin, U. (2003). Hyperglycemia: an independent marker of in-hospital mortality in patients with undiagnosed diabetes. *The Journal of Clinical Endocrinology & Metabolism*, *88*(3), 1402-1405.

Cattelani, L., del Giudice, G., Serra, A., Fratello, M., Saarimäki, L. A., Fortino, V., Federico, A., Tsiros, P., Mannerström, M., & Toimela, T. (2024). Quantitative in vitro to in vivo extrapolation for human toxicology and drug development. *arXiv preprint arXiv:2401.03277*.

Chaieb, K., Kouidhi, B., Hosawi, S. B., Baothman, O. A., Zamzami, M. A., & Altayeb, H. N. (2022). Computational screening of natural compounds as putative quorum sensing inhibitors targeting drug resistance bacteria: Molecular docking and molecular dynamics simulations. *Computers in Biology and Medicine*, *145*, 105517.

Chatterjee, N., & Perrimon, N. (2021). What fuels the fly: Energy metabolism in Drosophila and its application to the study of obesity and diabetes. *Science Advances*, *7*(24), eabg4336.

D'Souza, M. S., Alnaif, A., & Ray, S. D. (2022). Side effects of insulin and oral antihyperglycemic drugs. In *Side Effects of Drugs Annual* (Vol. 44, pp. 397-407). Elsevier.

Deacon, C. F. (2020). Dipeptidyl peptidase 4 inhibitors in the treatment of type 2 diabetes mellitus. *Nature Reviews Endocrinology*, *16*(11), 642-653.

Dege, N., Gökce, H., Doğan, O. E., Alpaslan, G., Ağar, T., Muthu, S., & Sert, Y. (2022). Quantum computational, spectroscopic investigations on N-(2-((2-chloro-4, 5-dicyanophenyl) amino) ethyl)-4-methylbenzenesulfonamide by DFT/TD-DFT with different solvents, molecular docking and drug-likeness researches. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, *638*, 128311.

Dhankhar, S., Chauhan, S., Mehta, D. K., Nitika, Saini, K., Saini, M., Das, R., Gupta, S., & Gautam, V. (2023). Novel targets for potential therapeutic use in Diabetes mellitus. *Diabetology & Metabolic Syndrome*, *15*(1), 17.

lavinothan, P., Ellappan, P., Balaji, T. D. S., Rajagopal, P., S., & Babu, S. (2022). Cuminaldehyde ameliorates nia in diabetic mice. *Frontiers in Bioscience-Elite*, *14*(4),

mento Gonzaga, T. K. S., Seeger, R. L., Dos Santos, M. J. S., Boligon, A. A., Meinerz, D. F., Lugokenski, T. H., da

Rocha, J. B. T., & Barbosa, N. V. (2017). High-sucrose diet induces diabetic-like phenotypes and oxidative stress in Drosophila melanogaster: Protective role of Syzygium cumini and Bauhinia forficata. *Biomedicine & Pharmacotherapy*, *89*, 605-616.

Ehtiati, S., Alizadeh, M., Farhadi, F., Khalatbari, K., Ajiboye, B. O., Rahimi, V. B., & Askari, V. R. (2023). Promising influences of caffeic acid and caffeic acid phenethyl ester against natural and chemical toxins: A comprehensive and mechanistic review. *Journal of Functional Foods*, *107*, 105637.

ElHajj Chehadeh, S., Sayed, N. S., Abdelsamad, H. S., Almahmeed, W., Khandoker, A. H., Jelinek, H. F., & Alsafar, H. S. (2022). Genetic variants and their associations to type 2 diabetes mellitus complications in The United Arab Emirates. *Frontiers in Endocrinology*, *12*, 751885.

Ganguly, R., Singh, S. V., Jaiswal, K., Kumar, R., & Pandey, A. K. (2023). Modulatory effect of caffeic acid in alleviating diabetes and associated complications. *World Journal of Diabetes*, *14*(2), 62.

Géminard, C., Arquier, N., Layalle, S., Bourouis, M., Slaidina, M., Delanoue, R., Bjordal, M., Ohanna, M., Ma, M., & Colombani, J. (2006). Control of metabolism and growth through insulin-like peptides in Drosophila. *Diabetes*, *55*(Supplement_2), S5-S8.

George, J., & Jacobs, H. T. (2019). Germline knockdown of spargel (PGC-1) produces embryonic lethality in Drosophila. *Mitochondrion*, *49*, 189-199.

Hossain, U., Das, A. K., Ghosh, S., & Sil, P. C. (2020). An overview on the role of bioactive α-glucosidase inhibitors in ameliorating diabetic complications. *Food and chemical toxicology*, *145*, 111738.

Istyastono, E. P., Yuniarti, N., Prasasty, V. D., Mungkasi, S., Waskitha, S. S., Yanuar, M. R., & Riswanto, F. D. (2023). Caffeic Acid in Spent Coffee Grounds as a Dual Inhibitor for MMP-9 and DPP-4 Enzymes. *Molecules*, *28*(20), 7182.

, Y., Li, G., Zhong, Z., & Wang, Y. (2024). Recent advances / strategies for preclinical and clinical drug discovery: natural products, small molecules and antibodies. *Drug oday*, 103885.

Komura, H., Watanabe, R., & Mizuguchi, K. (2023). The trends and future prospective of in silico models from the viewpoint of ADME evaluation in drug discovery. *Pharmaceutics*, *15*(11), 2619.

Land, H., & Humble, M. S. (2018). YASARA: a tool to obtain structural guidance in biocatalytic investigations. *Protein engineering: methods and protocols*, 43-67.

Liu, Z., Gao, H., Zhao, Z., Huang, M., Wang, S., & Zhan, J. (2023). Status of research on natural protein tyrosine phosphatase 1B inhibitors as potential antidiabetic agents: Update. *Biomedicine & Pharmacotherapy*, *157*, 113990.

Lourido, F., Quenti, D., Salgado-Canales, D., & Tobar, N. (2021). Domeless receptor loss in fat body tissue reverts insulin resistance induced by a high-sugar diet in Drosophila melanogaster. *Scientific Reports*, *11*(1), 3263.

Mert-Ozupek, N., Calibasi-Kocal, G., Olgun, N., Basbinar, Y., Cavas, L., & Ellidokuz, H. (2022). In-silico molecular interactions among the secondary metabolites of Caulerpa spp. and colorectal cancer targets. *Frontiers in Chemistry*, *10*, 1046313.

Musselman, L. P., Fink, J. L., & Baranski, T. J. (2019). Similar effects of high-fructose and high-glucose feeding in a Drosophila model of obesity and diabetes. *PLoS One*, *14*(5), e0217096.

Nainu, F. (2018). Penggunaan Drosophila melanogaster sebagai organisme model dalam penemuan obat. *Jurnal Farmasi Galenika (Galenika Journal of Pharmacy)(e-Journal)*, *4*(1), 50-67.

Nayak, N., & Mishra, M. (2021). High fat diet induced abnormalities in metabolism, growth, behavior, and circadian clock in Drosophila melanogaster. *Life Sciences*, *281*, 119758.

Ong, K. L., Stafford, L. K., McLaughlin, S. A., Boyko, E. J., Vollset, S. E., Smith, A. E., Dalton, B. E., Duprey, J., Cruz, J. A., & Hagins, H. (2023). Global, regional, and national burden of diabetes from 1990 to 2021, with projections of prevalence to 2050: a systematic analysis for the
en of Disease Study 2021. *The Lancet*, *402*(1), 203-234.

ı, D., Odeh, D., Gajski, G., Balta, V., Šver, L., & Jazvinšćak
l. (2021). Efficacy of caffeic acid on diabetes and its
ıs in the mouse. *Molecules*, *26*(11), 3262.

Pantaleon, M., Tan, H. Y., Kafer, G. R., & Kaye, P. L. (2010). Toxic effects of hyperglycemia are mediated by the hexosamine signaling pathway and o-linked glycosylation in early mouse embryos. *Biology of reproduction*, *82*(4), 751-758.

Rasyid, H., Soekamto, N. H., Firdausiah, S., Mardiyanti, R., Aswad, M., Saputri, W. D., Suma, A. A., Syahrir, N. H., & Listyarini, R. V. (2023). Revealing the Potency of 1, 3, 5-Trisubstituted Pyrazoline as Antimalaria through Combination of in silico Studies. *Sains Malaysiana*, *52*(10), 2855-2867.

Roney, M., & Aluwi, M. F. F. M. (2024). The importance of in-silico studies in drug discovery. *Intelligent Pharmacy*.

Rosa, R. A., Latada, N. P., Asbah, A., Mu'arif, A., Yulianty, R., & Nainu, F. (2021). Eksplorasi efek etanol terhadap survival dan status imunitas Drosophila melanogaster. *JFIOnline| Print ISSN 1412-1107| e-ISSN 2355-696X*, *13*(2), 146-153.

Rundell, T. B., & Baranski, T. J. (2024). Insect Models to Study Human Lipid Metabolism Disorders. In. Springer.

Sree Kommalapati, H., Pilli, P., Golla, V. M., Bhatt, N., & Samanthula, G. (2023). In silico tools to thaw the complexity of the data: revolutionizing drug research in drug metabolism, pharmacokinetics and toxicity prediction. *Current Drug Metabolism*, *24*(11), 735-755.

Sun, H., Saeedi, P., Karuranga, S., Pinkepank, M., Ogurtsova, K., Duncan, B. B., Stein, C., Basit, A., Chan, J. C., & Mbanya, J. C. (2022). IDF Diabetes Atlas: Global, regional and country-level diabetes prevalence estimates for 2021 and projections for 2045. *Diabetes research and clinical practice*, *183*, 109119.

Taïlé, J., Bringart, M., Planesse, C., Patché, J., Rondeau, P., Veeren, B., Clerc, P., Gauvin-Bialecki, A., Bourane, S., & Meilhac, O. (2022). Antioxidant polyphenols of Antirhea borbonica medicinal plant and caffeic acid reduce cerebrovascular, inflammatory and metabolic disorders aggravated by high-fat diet-induced obesity in a mouse model of stroke. *Antioxidants*, *11*(5), 858.

, Zhang, L., Xu, M., Zhang, M., & Khan, M. S. (2024). nteraction of Cu (II) with caffeic acid and chlorogenic acid idase inhibition. *Journal of the Science of Food and* *104*(1), 518-529.

Touré, H., Herrmann, J.-L., Szuplewski, S., & Girard-Misguich, F. (2023). Drosophila melanogaster as an organism model for studying cystic fibrosis and its major associated microbial infections. *Infection and Immunity*, *91*(11), e00240-00223.

Trang Nguyen, N. D., & Le, L. T. (2012). Targeted proteins for diabetes drug design. *Advances in natural sciences: nanoscience and nanotechnology*, *3*(1), 013001.

Tshiyoyo, K. S., Bester, M. J., Serem, J. C., & Apostolides, Z. (2022). In-silico reverse docking and in-vitro studies identified curcumin, 18α-glycyrrhetinic acid, rosmarinic acid, and quercetin as inhibitors of α-glucosidase and pancreatic α-amylase and lipid accumulation in HepG2 cells, important type 2 diabetes targets. *Journal of Molecular Structure*, *1266*, 133492.

Vinayagam, R., Jayachandran, M., & Xu, B. (2016). Antidiabetic effects of simple phenolic acids: A comprehensive review. *Phytotherapy research*, *30*(2), 184-199.

Wang, M., Mao, H., Chen, J., Qi, L., & Wang, J. (2022). Ameliorative effect of bayberry leaves proanthocyanidins on high sugar diet induced Drosophila melanogaster. *Frontiers in Pharmacology*, *13*, 1008580.

Westlake, H., Hanson, M. A., & Lemaitre, B. (2024). The Drosophila immunity handbook.

Yang, G., Li, L., Liu, Y., Liang, K., Wei, L., & Chen, L. (2021). Hyperglycemia-induced dysregulated fusion intermediates in insulin-secreting cells visualized by super-resolution microscopy. *Frontiers in Cell and Developmental Biology*, *9*, 650167.