

DAFTAR PUSTAKA

- Addicott, M. A., Baranger, D. A. A., Kozink, R. V., Smoski, M. J., Dichter, G. S., & McClernon, F. J. (2012). Smoking withdrawal is associated with increases in brain activation during decision making and reward anticipation: A preliminary study. *Psychopharmacology*, 2, 563–573. <https://doi.org/10.1007/s00213-011-2404-3>
- Adetunji, T. L., Acho, M. A., Samuel, V. O., Ohoro, C. R., & Ramulondi, M. (2024). *Erythrina velutina* Willd.: A review of its traditional uses, phytochemistry, pharmacology, and toxicology. *Journal of Ethnopharmacology*, 319(P2), 117273. <https://doi.org/10.1016/j.jep.2023.117273>
- Akers, A. T., Cooper, S. Y., Baumgard, Z. J., Casinelli, G. P., Avelar, A. J., & Henderson, B. J. (2020). Upregulation of NACHRS and changes in excitability on vta dopamine and gaba neurons correlates to changes in nicotine-reward-related behavior. *ENeuro*, 7(5), 1–15. <https://doi.org/10.1523/ENEURO.0189-20.2020>
- Albuquerque, E. X., Pereira, E. F. R., Alkondon, M., & Rogers, S. W. (2009). Mammalian nicotinic acetylcholine receptors: From structure to function. *Physiological Reviews*, 89(1), 73–120. <https://doi.org/10.1152/physrev.00015.2008>
- Ashok, A. H., Mizuno, Y., & Howe, O. D. (2019). *Tobacco smoking and dopaminergic function in humans: a meta-analysis of molecular imaging studies*. 1119–1129.
- Azam, L., Winzer-Serhan, U. H., Chen, Y., & Leslie, F. M. (2002). Expression of neuronal nicotinic acetylcholine receptor subunit mRNAs within midbrain dopamine neurons. *Journal of Comparative Neurology*, 444(3), 260–274. <https://doi.org/10.1002/cne.10138>
- Azmi, A. S., Rahim, N. A., Zahari, Z., & Salim, F. (2020). Cytotoxic activity of *erythrina fusca* Lour. Leaf, twig and flower extracts. *Malaysian Journal of Analytical Sciences*, 24(3), 313–319.
- Baik, J. H. (2020). Stress and the dopaminergic reward system. *Experimental and Molecular Medicine*, 52(12), 1879–1890. <https://doi.org/10.1038/s12276-020-00532-4>
- Bedell, S., Wells, J., Liu, Q., & Breivogel, C. (2019). Vitexin as an active ingredient in passion flower with potential as an agent for nicotine cessation: vitexin antagonism of the expression of nicotine locomotor sensitization in rats. *Pharmaceutical Biology*, 57(1), 8–12. <https://doi.org/10.1080/13880209.2018.1561725>
- Beninger, R. J., & Gerdjikova, T. V. (2004). The Role of Signaling Molecules in Reward-Related Incentive Learning. *Neurotoxicity Research*, 6(1), 91–104.
- Benowitz, N. L. (2010). Nicotine Addiction. *N Engl J Med*, 362(24), 2295–2393.

<https://doi.org/10.1056/NEJMr0809890.Nicotine>

Bhalsinge, R. R., Barde, A. A., Worlikar, P. S., Limaye, M. V., Dhole, M. P., & Tilak, A. V. (2017). Effect of nicotine on serotonin (5-HT) levels in brain of depressed rats. *International Journal of Basic & Clinical Pharmacology*, 6(4), 938. <https://doi.org/10.18203/2319-2003.ijbcp20171108>

Bloem, B., Poorthuis, R. B., & Mansvelder, H. D. (2014). Cholinergic modulation of the medial prefrontal cortex: The role of nicotinic receptors in attention and regulation of neuronal activity. *Frontiers in Neural Circuits*, 8(MAR), 1–16. <https://doi.org/10.3389/fncir.2014.00017>

Bordia, T., Hrachova, M., Chin, M., McIntosh, J. M., & Quik, M. (2012). *Varenicline Is a Potent Partial Agonist at $\alpha_6\beta_2$ Nicotinic Acetylcholine Receptors in Rat and Monkey Striatum*. 342(2), 327–334.

Brujinzeel, A. W. (2012). Tobacco addiction and the dysregulation of brain stress systems. *Neuroscience and Biobehavioral Reviews*, 36(5), 1418–1441. <https://doi.org/10.1016/j.neubiorev.2012.02.015>

Brujinzeel, A. W. (2019). Nicotine, corticotropin-releasing factor, and anxiety-like behavior. In *Neuroscience of Nicotine: Mechanisms and Treatment*. Elsevier Inc. <https://doi.org/10.1016/B978-0-12-813035-3.00020-4>

Brujinzeel, A. W., Ford, J., Rogers, J. A., Scheick, S., Ji, Y., & Alexander, J. C. (2012). Blockade of CRF1 receptors in the central nucleus of the amygdala attenuates the dysphoria associated with nicotine withdrawal in rats. *Pharmacol Biochem Behav*, 101(1), 62–68. <https://doi.org/10.1016/j.pbb.2011.12.001>.Blockade

Brynildsen, J. K., Najar, J., Hsu, L. M., Vaupel, D. B., Lu, H., Ross, T. J., Yang, Y., & Stein, E. A. (2016). A novel method to induce nicotine dependence by intermittent drug delivery using osmotic minipumps. *Pharmacology Biochemistry and Behavior*, 142, 79–84. <https://doi.org/10.1016/j.pbb.2015.12.010>

Burke, M. V., Hays, T. J., & Ebbert, J. O. (2016). *Varenicline for smoking cessation : a narrative review of efficacy , adverse effects , use in at-risk populations , and adherence*. 435–441.

Cai, J., & Tong, Q. (2022). Anatomy and function of ventral tegmental area glutamate neurons. *Frontiers in Neural Circuits*, 16(May). <https://doi.org/10.3389/fncir.2022.867053>

Carlson, A. B., & Kraus, G. P. (2019). Physiology, cholinergic receptors. *StatPearls*. <http://www.ncbi.nlm.nih.gov/pubmed/30252390>

Carvalho, A. C. C. S., Almeida, D. S., Melo, M. G. D., Cavalcanti, S. C. H., & Marçal, R. M. (2009). Evidence of the mechanism of action of *Erythrina velutina* Willd (Fabaceae) leaves aqueous extract. *Journal of Ethnopharmacology*, 122(2), 374–378. <https://doi.org/10.1016/j.jep.2008.12.019>

Chae, Y., Yeom, M., Han, J.-H., Park, H.-J., Hahm, D.-H., Shim, I., Lee, H.-S., & Lee,

- H. (2008). Effect of acupuncture on anxiety-like behavior during nicotine withdrawal and relevant mechanisms. *Neuroscience Letters*, 430(2), 98–102. <https://doi.org/10.1016/j.neulet.2007.10.026>
- Chinta, S. J., & Andersen, J. K. (2005). Dopaminergic neurons. *International Journal of Biochemistry and Cell Biology*, 37(5 SPEC. ISS.), 942–946. <https://doi.org/10.1016/j.biocel.2004.09.009>
- Cho, S. Bin, Su, J., Kuo, S. I. C., Bucholz, K. K., Chan, G., Edenberg, H. J., McCutcheon, V. V., Schuckit, M. A., Kramer, J. R., & Dick, D. M. (2019). Positive and negative reinforcement are differentially associated with alcohol consumption as a function of alcohol dependence. *Psychology of Addictive Behaviors*, 33(1), 58–68. <https://doi.org/10.1037/adb0000436>
- Chu, H. B., Tan, Y. De, Li, Y. J., Cheng, B. Bin, Rao, B. Q., & Zhou, L. S. (2019). Anxiolytic and anti-depressant effects of hydroalcoholic extract from *Erythrina variegata* and its possible mechanism of action. *African Health Sciences*, 19(3), 2526–2536. <https://doi.org/10.4314/ahs.v19i3.28>
- Slawecki, C., & Ehlers, C. (2002). Lasting effects of adolescent nicotine exposure on the electroencephalogram, event related potentials, and locomotor activity in the rat. *Brain Research. Developmental Brain Research*, 138(1), 15–25. [https://doi.org/10.1016/s0165-3806\(02\)00455-8](https://doi.org/10.1016/s0165-3806(02)00455-8)
- Clarke, P. B. S., & Pert, A. (1985). Autoradiographic evidence for nicotine receptors on nigrostriatal and mesolimbic dopaminergic neurons. *Brain Research*, 348(2), 355–358. [https://doi.org/10.1016/0006-8993\(85\)90456-1](https://doi.org/10.1016/0006-8993(85)90456-1)
- Clementson, S., Matheu, S. A., Rørsted, E. M., Pedersen, H., Jensen, A. A., Clausen, R. P., Vital, P., Glibstrup, E., Jessing, M., & Kristensen, J. L. (2021). *Erythrina* alkaloid analogues as nAChR antagonists—a flexible platform for leads in drug discovery. *Journal of Organic Chemistry*, 86(12), 8248–8262. <https://doi.org/10.1021/acs.joc.1c00707>
- Coe, J. W., Brooks, P. R., Vetelino, M. G., Wirtz, M. C., Arnold, E. P., Huang, J., Sands, S. B., Davis, T. I., Lebel, L. A., Fox, C. B., Shrikhande, A., Heym, J. H., Schaeffer, E., Rollema, H., Lu, Y., Mansbach, R. S., Chambers, L. K., Rovetti, C. C., Schulz, D. W., ... Neill, B. T. O. (2005). *Varenicline : An r 4 2 Nicotinic Receptor Partial Agonist for Smoking Cessation. Chart 1*, 3474–3477.
- Cohen, A., Treweek, J., Edwards, S., Leão, R. M., Schulteis, G., Koob, G. F., & George, O. (2013). Extended access to nicotine leads to a CRF1 receptor dependent increase in anxiety-like behavior and hyperalgesia in rats. *Addiction Biology*, 20(1), 56–68. <https://doi.org/10.1111/adb.12077>
- Cohen, J. B., Sharp, S. D., & Liu, W. S. (1991). Structure of the agonist-binding site of the nicotinic acetylcholine receptor. [3H]acetylcholine mustard identifies residues in the cation-binding subsite. *Journal of Biological Chemistry*, 266(34), 23354–23364. [https://doi.org/10.1016/s0021-9258\(18\)54504-x](https://doi.org/10.1016/s0021-9258(18)54504-x)

Compound summary Erythrinine. (n.d.). National Library of Medicine. Retrieved July 6, 2023, from <https://pubchem.ncbi.nlm.nih.gov/compound/Erythrinine>

Cools, R., & Arnsten, A. F. T. (2022). Neuromodulation of prefrontal cortex cognitive function in primates: the powerful roles of monoamines and acetylcholine. *Neuropsychopharmacology*, 47(1), 309–328. <https://doi.org/10.1038/s41386-021-01100-8>

Cooper, S., Robison, A. J., & Mazei-Robison, M. S. (2017). Reward circuitry in addiction. *Neurotherapeutics*, 14(3), 687–697. <https://doi.org/10.1007/s13311-017-0525-z>

Cosgrove, K. P., Batis, J., Bois, F., Maciejewski, P. K., Esterlis, I., Kloczynski, T., Stiklus, S., Krishnan-Sarin, S., O'Malley, S., Perry, E., Tamagnan, G., Seibyl, J. P., & Staley, J. K. (2009). B2-nicotinic acetylcholine receptor availability during acute and prolonged abstinence from tobacco smoking. *Archives of General Psychiatry*, 66(6), 666–676. <https://doi.org/10.1001/archgenpsychiatry.2009.41>

Costa, J. P., De Oliveira, G. A. L., De Almeida, A. A. C., Islam, M. T., De Sousa, D. P., & De Freitas, R. M. (2014). Anxiolytic-like effects of phytol: Possible involvement of GABAergic transmission. *Brain Research*, 1547, 34–42. <https://doi.org/10.1016/j.brainres.2013.12.003>

Crooks, P. A., Bardo, M. T., & Dwoskin, L. P. (2014). Nicotinic receptor antagonists as treatments for nicotine abuse. In *Advances in Pharmacology* (1st ed., Vol. 69). Elsevier Inc. <https://doi.org/10.1016/B978-0-12-420118-7.00013-5>

Cryan, J. F., Bruijnzeel, A. W., Skjei, K. L., & Markou, A. (2003). Bupropion enhances brain reward function and reverses the affective and somatic aspects of nicotine withdrawal in the rat. *Psychopharmacology*, 168(3), 347–358. <https://doi.org/10.1007/s00213-003-1445-7>

D'souza, M. S., & Markou, A. (2013). The “Stop” and “Go” of nicotine dependence: Role of GABA and glutamate. *Cold Spring Harbor Perspectives in Medicine*, 3(6). <https://doi.org/10.1101/cshperspect.a012146>

D'Souza, M. S., & Markou, A. (2011). Neuronal mechanisms underlying development of nicotine dependence: implications for novel smoking-cessation treatments. *Addiction Science & Clinical Practice*, 6(1), 4–16.

D'Souza, M. S., & Markou, A. (2011). 4 • *ADDICTION SCIENCE & CLINICAL PRACTICE* - JULY 2011 Neuronal Mechanisms Underlying Development of Nicotine Dependence: Implications for Novel Smoking-Cessation Treatments. July, 4–16.

Dai, X., Gakidou, E., & Lopez, A. D. (2022). Evolution of the global smoking epidemic over the past half century: Strengthening the evidence base for policy action. *Tobacco Control*, 31(2), 129–137. <https://doi.org/10.1136/tobaccocontrol-2021-056535>

- Dajas-Bailador, F., & Wonnacott, S. (2004). Nicotinic acetylcholine receptors and the regulation of neuronal signalling. *Trends in Pharmacological Sciences*, 25(6), 317–324. <https://doi.org/10.1016/j.tips.2004.04.006>
- Dani, J. A., & De Biasi, M. (2001). Cellular mechanisms of nicotine addiction. *Pharmacology Biochemistry and Behavior*, 70(4), 439–446. [https://doi.org/10.1016/S0091-3057\(01\)00652-9](https://doi.org/10.1016/S0091-3057(01)00652-9)
- Dantas, M. C., De Oliveira, F. S., Bandeira, S. M., Batista, J. S., Silva, C. D., Alves, P. B., Antonioli, A. R., & Marchioro, M. (2004). Central nervous system effects of the crude extract of *Erythrina velutina* on rodents. *Journal of Ethnopharmacology*, 94(1), 129–133. <https://doi.org/10.1016/j.jep.2004.05.007>
- De Kloet, S. F., Mansvelder, H. D., & De Vries, T. J. (2015). Cholinergic modulation of dopamine pathways through nicotinic acetylcholine receptors. *Biochemical Pharmacology*, 97(4), 425–438. <https://doi.org/10.1016/j.bcp.2015.07.014>
- de Oliveira, D. D., da Silva, C. P., Iglesias, B. B., & Beleboni, R. O. (2020). Vitexin possesses anticonvulsant and anxiolytic-like effects in murine animal models. *Frontiers in Pharmacology*, 11(August), 1–9. <https://doi.org/10.3389/fphar.2020.01181>
- de Oliveira, D. R., Zamberlam, C. R., Gaiardo, R. B., Rêgo, G. M., Cerutti, J. M., Cavalheiro, A. J., & Cerutti, S. M. (2014). Flavones from *Erythrina falcata* are modulators of fear memory. *BMC Complementary and Alternative Medicine*, 14(1), 1–17. <https://doi.org/10.1186/1472-6882-14-288>
- Decker, M. W., Anderson, D. J., Brioni, J. D., Donnelly-Roberts, D. L., Kang, C. H., O'Neill, A. B., Piattoni-Kaplan, M., Swanson, S., & Sullivan, J. P. (1995). Erysodine, a competitive antagonist at neuronal nicotinic acetylcholine receptors. *European Journal of Pharmacology*, 280(1), 79–89. [https://doi.org/10.1016/0014-2999\(95\)00191-M](https://doi.org/10.1016/0014-2999(95)00191-M)
- Devi, R., Barman, D., Sinha, S., Hazarika, S., & Das, S. (2020). Nicotine replacement therapy: A friend or foe. *Journal of Family Medicine and Primary Care*, 9(6), 2615. https://doi.org/10.4103/jfmprc.jfmprc_313_20
- DH, M., JR, L., Newlin-Maultsby, P., LK, R., JG, L., VA, C., JS, C., & OB, W. (1992). Rodent model of nicotine abstinence syndrome. *Pharmacology, Biochemistry, and Behavior*, 43(3), 779–784. [https://doi.org/10.1016/0091-3057\(92\)90408-8](https://doi.org/10.1016/0091-3057(92)90408-8)
- Di Pasquale, G., Dicembrini, I., Raimondi, L., Pagano, C., Egan, J. M., Cozzi, A., Cinci, L., Loreto, A., Manni, M. E., Berretti, S., Morelli, A., Zheng, C., Michael, D. G., Maggi, M., Vettor, R., Chiorini, J. A., Mannucci, E., & Rotella, C. M. (2012). Sustained exendin-4 secretion through gene therapy targeting salivary glands in two different rodent models of obesity/type 2 diabetes. *PloS One*, 7(7), e40074. <https://doi.org/10.1371/journal.pone.0040074>
- Doura, M. B., Gold, A. B., Keller, A. B., & Perry, D. C. (2008). Adult and periadolescent rats differ in expression of nicotinic cholinergic receptor subtypes and in the

- response of these subtypes to chronic nicotine exposure. *Brain Research*, 1215, 40–52. <https://doi.org/10.1016/j.brainres.2008.03.056>
- E. Sher, Y. Chen, T.J.W. Sharples, L.M. Broad, G. Benedetti, R. Zwart, G.I. McPhie, K.H. Pearson, T. Baldwinson, & G. De Filippi. (2005). Physiological roles of neuronal nicotinic receptors subtypes: New insights on the nicotinic modulation of neurotransmitter release, synaptic transmission and plasticity. *Current Topics in Medicinal Chemistry*, 4(3), 283–297. <https://doi.org/10.2174/1568026043451393>
- Emmanuel, T., Dairou, H., Jacqueline, N., Gisèle, N., Abel, Y. G., Esther, N., Elisabeth, N. B., & Joseph, M. T. (2015). Study of the anti-anxiety properties of the phaseollidin, an isoflavonoid isolated from *Erythrina droogmansiana* (Leguminosae). *World Journal of Pharmaceutical Science*, 3(9), 1763–1775.
- Epping-Jordan, M. P., Watkins, S. S., Koob, G. F., & Markou, A. (1998). Dramatic decreases in brain reward function during nicotine withdrawal. *Nature*, 393(6680), 76–79. <https://doi.org/10.1038/30001>
- Everitt, B. J., & Robbins, T. W. (2016). Drug Addiction: Updating actions to habits to compulsions ten years on barry. *Annual Review of Psychology*, July 2015, 1–28. <https://doi.org/10.1146/annurev-psych-122414-033457>
- Faggion, S. A., Cunha, A. O. S., Fachim, H. A., Gavin, A. S., dos Santos, W. F., Pereira, A. M. S., & Beleboni, R. O. (2011). Anticonvulsant profile of the alkaloids (+)-erythravine and (+)-11- α -hydroxy-erythravine isolated from the flowers of *Erythrina mulungu* Mart ex Benth (Leguminosae-Papilionaceae). *Epilepsy and Behavior*, 20(3), 441–446. <https://doi.org/10.1016/j.yebeh.2010.12.037>
- Fahmy, N., Alsayed, E., El-Shazly, M., & Singab, A. N. (2019). Alkaloids of genus *Erythrina*: An updated review. *Natural Product Research*, 34, 1–22. <https://doi.org/10.1080/14786419.2018.1564300>
- Fahmy, N. M., Al-Sayed, E., El-Shazly, M., & Nasser Singab, A. (2020). Alkaloids of genus *Erythrina*: An updated review. *Natural Product Research*, 34(13), 1891–1912. <https://doi.org/10.1080/14786419.2018.1564300>
- Fahmy, N. M., Al-Sayed, E., El-Shazly, M., & Singab, A. N. (2018). Comprehensive review on flavonoids biological activities of *Erythrina* plant species. *Industrial Crops and Products*, 123(May), 500–538. <https://doi.org/10.1016/j.indcrop.2018.06.028>
- Fields, H. L., Hjelmstad, G. O., Margolis, E. B., & Nicola, S. M. (2007). Ventral tegmental area neurons in learned appetitive behavior and positive reinforcement. *Annual Review of Neuroscience*, 30, 289–316. <https://doi.org/10.1146/annurev.neuro.30.051606.094341>
- Filip, M., Smaga, I., & Przeglasiński, E. (2020). The role of serotonin in nicotine abuse and addiction. *Handbook of Behavioral Neuroscience*, 31, 829–841. <https://doi.org/10.1016/B978-0-444-64125-0.00042-6>

- Flausino, O. A., Pereira, A. M., Bolzani, V. D. S., & Nunes-De-Souza, R. L. (2007). Effects of erythrinian alkaloids isolated from *Erythrina mulungu* (Papilionaceae) in mice submitted to animal models of anxiety. *Biological and Pharmaceutical Bulletin*, 30(2), 375–378. <https://doi.org/10.1248/bpb.30.375>
- Gaimarri, A., Moretti, M., Riganti, L., Zanardi, A., Clementi, F., & Gotti, C. (2007). Regulation of neuronal nicotinic receptor traffic and expression. *Brain Research Reviews*, 55(1), 134–143. <https://doi.org/10.1016/j.brainresrev.2007.02.005>
- Garcia-Fernandez, G., Krotter, A., Gonz, A., García-fern, G., & Secades-villa, R. (2023). Effectiveness of including weight management in smoking cessation treatments: A meta-analysis of behavioral interventions. *Addictive Behaviors*, 140(January). <https://doi.org/10.1016/j.addbeh.2023.107606>
- Geisler, S., & Trimble, M. (2008). The lateral habenula: No longer neglected. *CNS Spectrums*, 13(6), 484–489. <https://doi.org/10.1017/S1092852900016710>
- Geisler, S., & Wise, R. A. (2008). Functional implications of glutamatergic projections to the ventral tegmental area. *Reviews in the Neurosciences*, 19(4–5), 227–244. <https://doi.org/10.1515/REVNEURO.2008.19.4-5.227>
- Gelfuso, E. A., Reis, S. L., Aguiar, D. S. R., Faggion, S. A., Gomes, F. M. M., Galan, D. T., Peigneur, S., Pereira, A. M. S., Mortari, M. R., Cunha, A. O. S., Tytgat, J., & Beleboni, R. O. (2020). New insights in the mode of action of (+)-erythravine and (+)-11 α -hydroxy-erythravine alkaloids. *European Journal of Pharmacology*, 885(July). <https://doi.org/10.1016/j.ejphar.2020.173390>
- George, O., Ghosland, S., Azar, M. R., Cottone, P., Zorrilla, E. P., Parsons, L. H., O'Dell, L. E., Richardson, H. N., & Koob, G. F. (2007). CRF-CRF1 system activation mediates withdrawal-induced increases in nicotine self-administration in nicotine-dependent rats. *Proceedings of the National Academy of Sciences of the United States of America*, 104(43), 17198–17203. <https://doi.org/10.1073/pnas.0707585104>
- George, O., Grieder, T. E., Cole, M., & Koob, G. F. (2010). Exposure to chronic intermittent nicotine vapor induces nicotine dependence. *Pharmacology, Biochemistry, and Behavior*, 96(1), 104–107. <https://doi.org/10.1016/j.pbb.2010.04.013>
- George, O., & Koob, G. F. (2017). Overview of nicotine withdrawal and negative reinforcement (Preclinical). In *Negative Affective States and Cognitive Impairments in Nicotine Dependence*. Elsevier Inc. <https://doi.org/10.1016/B978-0-12-802574-1.00001-6>
- George, O., Lloyd, A., Torrey, N., Road, P., Jolla, L., Carroll, F. I., & Koob, G. F. (2024). Varenicline blocks nicotine intake in rats with extended access to nicotine self-administration. 213(4), 715–722. <https://doi.org/10.1007/s00213-010-2024-3>.Varenicline
- Goldstein, R. Z., & Volkow, N. D. (2012). Dysfunction of the prefrontal cortex in

- addiction: neuroimaging findings and clinical implications. *Nat Rev Neurosci*, 12(11), 652–669. <https://doi.org/10.1038/nrn3119>. Dysfunction
- Gonzales, D., Rennard, S. I., Nides, M., Oncken, C., Azoulay, S., Billing, C. B., Watsky, E. J., Gong, J., Williams, K. E., & Reeves, K. R. (2006). Varenicline, an $\alpha 4 \beta 2$ nicotinic acetylcholine receptor partial agonist, vs sustained-release bupropion and placebo for smoking cessation: A randomized controlled trial. *Jama*, 296(1), 47–55. <https://doi.org/10.1001/jama.296.1.47>
- Govind, A. P., Vezina, P., & Green, W. N. (2009). Nicotine-induced upregulation of nicotinic receptors: Underlying mechanisms and relevance to nicotine addiction. *Biochemical Pharmacology*, 78(7), 756–765. <https://doi.org/10.1016/j.bcp.2009.06.011>
- Govind, A. P., Walsh, H., & Green, W. N. (2012). Nicotine-induced upregulation of native neuronal nicotinic receptors is caused by multiple mechanisms. 32(6), 2227–2238. <https://doi.org/10.1523/JNEUROSCI.5438-11.2012>
- Gozen, O., Aypar, B., Ozturk Bintepe, M., Tuzcu, F., Balkan, B., Koylu, E. O., Kanit, L., & Keser, A. (2024). Chronic nicotine consumption and withdrawal regulate melanocortin receptor, CRF, and CRF receptor mRNA levels in the rat brain. *Brain Sciences*, 14(1). <https://doi.org/10.3390/brainsci14010063>
- Grabus, S. D., Carroll, F. I., & Damaj, M. I. (2012). Bupropion and its main metabolite reverse nicotine chronic tolerance in the mouse. *Nicotine and Tobacco Research*, 14(11), 1356–1361. <https://doi.org/10.1093/ntr/nts088>
- Grieder, T. A., Herman, M. A., Contet, C., Tan, L. A., Vargas-Perez, H., Cohen, A., Chwalek, M., Maal-Bared, G., Freiling, J., Schlosburg, J. E., Clarke, L., Crawford, E., Koebel, P., Canonigo, V., Sanna, P., Tapper, A., Roberto, M., Kieffer, B. L., Sawchenko, P. E., ... George, O. (2014). CRF neurons in the ventral tegmental area control the aversive effects of nicotine withdrawal and promote escalation of nicotine intake. *Nature Neuroscience*, 17(12), 1751–1758. <https://doi.org/10.1038/nn.3872>. CRF
- Grillner, P., & Svensson, T. H. (2000). Nicotine-induced excitation of midbrain dopamine neurons in vitro involves ionotropic glutamate receptor activation. *Synapse*, 38(1), 1–9. [https://doi.org/10.1002/1098-2396\(200010\)38:1<1::AID-SYN1>3.0.CO;2-A](https://doi.org/10.1002/1098-2396(200010)38:1<1::AID-SYN1>3.0.CO;2-A)
- Grima, L. L., Walton, M. E., & Husain, M. (2022). Nucleus accumbens D1-receptors regulate and focus transitions to reward-seeking action. *March*. <https://doi.org/10.1038/s41386-022-01312-6>
- Gupta, R., Bharat, A., Dhiman, U., & Sharma, A. (2019). Nicotine replacement therapy: A smoking cessation aid... an overview. *International Journal of Oral Health Dentistry*, 5(2), 69–75. <https://doi.org/10.18231/j.ijohd.2019.017>
- Haass-Koffler, C. L., & Bartlett, S. E. (2012). Stress and addiction: Contribution of the corticotropin releasing factor (CRF) system in neuroplasticity. *Frontiers in*

Molecular Neuroscience, 5(AUG 2012), 1–31.
<https://doi.org/10.3389/fnmol.2012.00091>

Hajiasgharzadeh, K., Naghipour, B., & Shahabi, P. (2023). Review article: The role of microRNAs in nicotine signaling. *EXCLI Journal*, 22, 433–450.

Halder, N., & Lal, G. (2021). Cholinergic system and its therapeutic importance in inflammation and autoimmunity. *Frontiers in Immunology*, 12(April).
<https://doi.org/10.3389/fimmu.2021.660342>

Hanrahan, J. R., Chebib, M., & Johnston, G. A. R. (2011). Flavonoid modulation of GABA A receptors. *British Journal of Pharmacology*, 163(2), 234–245.
<https://doi.org/10.1111/j.1476-5381.2011.01228.x>

Henderson, B. J., & Lester, H. (2016). *Inside-out neuropharmacology of nicotinic drugs*. 96(0), 178–193.
<https://doi.org/10.1016/j.neuropharm.2015.01.022> Inside-out

Henderson, B. J., Wall, T. R., Henley, B. M., Kim, C. H., McKinney, S., & Lester, H. A. (2017). Menthol enhances nicotine reward-related behavior by potentiating nicotine-induced changes in nacr function, nacr upregulation, and DA neuron excitability. *Neuropsychopharmacology*, 42(12), 2285–2291.
<https://doi.org/10.1038/npp.2017.72>

Hendrickson, L. M., Guildford, M. J., & Tapper, A. R. (2013). Neuronal nicotinic acetylcholine receptors: Common molecular substrates of nicotine and alcohol dependence. *Frontiers in Psychiatry*, 4(APR), 1–16.
<https://doi.org/10.3389/fpsy.2013.00029>

Hinds, J. A., & Sanchez, E. R. (2022). The role of the Hypothalamus–Pituitary–Adrenal (HPA) Axis in test-induced anxiety: Assessments, physiological responses, and molecular details. *Stresses*, 2(1), 146–155.
<https://doi.org/10.3390/stresses2010011>

Hogan, E. M., Casserly, A. P., Scofield, M. D., Mou, Z., Zhao-shea, R., Johnson, C. W., Tapper, A. R., & Gardner, P. D. (2014). miRNAome analysis of the mammalian neuronal nicotinic acetylcholine receptor gene family. *RNA*, 1890–1899. <https://doi.org/10.1261/rna.034066.112.1890>

Hughes, J. R., & Hatsukami, D. (1986). Signs and symptoms of tobacco withdrawal. *Archives of General Psychiatry*, 43(3), 289–294.
<https://doi.org/10.1001/archpsyc.1986.01800030107013>

Hughes, J. R., Stead, L. F., & Lancaster, T. (2000). Anxiolytics for smoking cessation. *Cochrane Database of Systematic Reviews*, 2011(8).
<https://doi.org/10.1002/14651858.CD002849>

Hughes, J., Stead, L., & Lancaster, T. (2003). Antidepressants for smoking cessation. *Cochrane Database of Systematic Reviews*, 5.
<https://doi.org/10.1002/14651858.cd000031>

- Hurley, R. A., Hayman, L. A., & Taber, K. H. (2009). Windows to the brain. *Journal of Neuropsychiatry and Clinical Neurosciences*, 21(1), 1–4. <https://doi.org/10.4088/jcp.10bk06693whi>
- Hussain, M. M., Tuhin, M. T. H., Akter, F., & Rashid, M. A. (2016). Constituents of *Erythrina* - a potential source of secondary metabolites: A review. *Bangladesh Pharmaceutical Journal*, 19(2), 237–253. <https://doi.org/10.3329/bpj.v19i2.29287>
- Iemolo, A., Blasio, A., St Cyr, S. A., Jiang, F., Rice, K. C., Sabino, V., & Cottone, P. (2013). CRF-CRF 1 receptor system in the central and basolateral nuclei of the amygdala differentially mediates excessive eating of palatable food. *Neuropsychopharmacology*, 38(12), 2456–2466. <https://doi.org/10.1038/npp.2013.147>
- Igari, M., Alexander, J. C., Ji, Y., Qi, X., Papke, R. L., & Bruijnzeel, A. W. (2014). Varenicline and cytosine diminish the dysphoric-like state associated with spontaneous nicotine withdrawal in rats. *Neuropsychopharmacology: Official Publication of the American College of Neuropsychopharmacology*, 39(2), 455–465. <https://doi.org/10.1038/npp.2013.216>
- Ikemoto, S., Glazier, B. S., Murphy, J. M., & McBride, W. J. (1997). Role of dopamine D 1 and D 2 receptors in the nucleus accumbens in mediating reward. 17(21), 8580–8587.
- Islam, M. T., Ali, E. S., Uddin, S. J., Shaw, S., Islam, M. A., Ahmed, M. I., Chandra Shill, M., Karmakar, U. K., Yarla, N. S., Khan, I. N., Billah, M. M., Pieczynska, M. D., Zengin, G., Malainer, C., Nicoletti, F., Gulei, D., Berindan-Neagoe, I., Apostolov, A., Banach, M., ... Atanasov, A. G. (2018). Phytol: A review of biomedical activities. *Food and Chemical Toxicology*, 121(August), 82–94. <https://doi.org/10.1016/j.fct.2018.08.032>
- Isola, R., Vogelsberg, V., Wemlinger, T. A., Neff, N. H., & Hadjiconstantinou, M. (1999). Nicotine abstinence in the mouse. *Brain Research*, 850(1–2), 189–196. [https://doi.org/10.1016/S0006-8993\(99\)02131-9](https://doi.org/10.1016/S0006-8993(99)02131-9)
- Iturriaga-Vásquez, P., Carbone, A., García-Beltrán, O., Livingstone, P. D., Biggin, P. C., Cassels, B. K., Wonnacott, S., Zapata-Torres, G., & Bermudez, I. (2010). Molecular determinants for competitive inhibition of $\alpha 4\beta 2$ nicotinic acetylcholine receptors. *Molecular Pharmacology*, 78(3), 366–375. <https://doi.org/10.1124/mol.110.065490>
- Jäger, A. K., & Saaby, L. (2011). Flavonoids and the CNS. *Molecules*, 16, 1471–1485. <https://doi.org/10.3390/molecules16021471>
- Jensen, A. A., Frølund, B., Liljefors, T., & Krogsaard-Larsen, P. (2005). Neuronal nicotinic acetylcholine receptors: Structural revelations, target identifications, and therapeutic inspirations. *Journal of Medicinal Chemistry*, 48(15), 4705–4745. <https://doi.org/10.1021/jm040219e>
- Jiloha, R. C. (2014). Pharmacotherapy of smoking cessation. *Indian Journal of*

Psychiatry, 56(1), 87–95. <https://doi.org/10.4103/0019-5545.124726>

Juárez Olguín, H., Calderón Guzmán, D., Hernández García, E., & Barragán Mejía, G. (2016). The role of dopamine and its dysfunction as a consequence of oxidative stress. *Oxidative Medicine and Cellular Longevity*, 2016. <https://doi.org/10.1155/2016/9730467>

Kamens, H. M., Jimena Andersen, & Mariana R. Piccioto. (2010). The nicotinic acetylcholine receptor partial agonist varenicline increases the ataxic and sedative-hypnotic effects of acute ethanol administration in C57BL/6J mice. *Alcohol Clin Exp Res*, 34(12), 2053–2060. <https://doi.org/10.1016/j.earlhumdev.2006.05.022>

Kaushal, A., Sharma, M., Navneet, & Sharma, M. (2020). Ethnomedicinal, phytochemical, therapeutic and pharmacological review of the genus *Erythrina*. *International Journal of Botany Studies*, 5(6), 642–648. www.botanyjournals.com

Kim, R. K., Truby, N. L., Silva, G. M., Picone, J. A., Miller, C. S., Baldwin, A. N., & Neve, R. L. (2024). Histone H1x in mouse ventral hippocampus associates with , but does not cause behavioral adaptations to stress. *Translational Psychiatry*, May, 1–10. <https://doi.org/10.1038/s41398-024-02931-x>

Klawonn, A. M., & Malenka, R. C. (2018). Nucleus accumbens modulation in reward and aversion. *Cold Spring Harbor Symposia on Quantitative Biology*, 83, 119–129. <https://doi.org/10.1101/sqb.2018.83.037457>

Koob, G. F. (2010). The role of CRF and CRF-related peptides in the dark side of addiction. *Brain Research*, 1314, 3–14. <https://doi.org/10.1016/j.brainres.2009.11.008>

Koob, G. F. (2015). The dark side of emotion : the addiction perspective. *European Journal of Pharmacology*, 15(753), 73–87. <https://doi.org/10.1016/j.ejphar.2014.11.044>.The

Koob, G. F., & Le Moal, M. (2008). Addiction and the brain antireward system. *Annual Review of Psychology*, 59, 29–53. <https://doi.org/10.1146/annurev.psych.59.103006.093548>

Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: a neurocircuitry analysis. *The Lancet Psychiatry*, 3(8), 760–773. [https://doi.org/10.1016/S2215-0366\(16\)00104-8](https://doi.org/10.1016/S2215-0366(16)00104-8)

Kretz, O., Reichardt, H. M., Schütz, G., & Bock, R. (1999). Corticotropin-releasing hormone expression is the major target for glucocorticoid feedback-control at the hypothalamic level. *Brain Research*, 818(2), 488–491. [https://doi.org/10.1016/S0006-8993\(98\)01277-3](https://doi.org/10.1016/S0006-8993(98)01277-3)

Kumar, M. (2020). Anxiolytic activity of methanolic extract of *Erythrina variegata* Linn. leaves in Wistar rats. *Research in Pharmacy and Health Sciences*, 05(04), 205–208. <https://doi.org/10.32463/rphs.2020.v06i01.03>

- Lancaster, T., & Stead, L. F. (1998). Mecamylamine (a nicotine antagonist) for smoking cessation. *Cochrane Database of Systematic Reviews*, 2017(12). <https://doi.org/10.1002/14651858.CD001009>
- LE, O., AW, B., Ghosland, S., Markou, A., & GF, K. (2004). Nicotine withdrawal in adolescent and adult rats. In *Annals of the New York Academy of Sciences* (Vol. 1021, pp. 167–174). <https://doi.org/10.1196/annals.1308.022>
- Lee, C. (2003). Conformation, action, and mechanism of action of neuromuscular blocking muscle relaxants. *Pharmacology and Therapeutics*, 98(2), 143–169. [https://doi.org/10.1016/S0163-7258\(03\)00030-5](https://doi.org/10.1016/S0163-7258(03)00030-5)
- Lein, E. S., Hawrylycz, M. J., Ao, N., Ayres, M., Bensinger, A., Bernard, A., Boe, A. F., Boguski, M. S., Brockway, K. S., Byrnes, E. J., Chen, L., Chen, L., Chen, T. M., Chin, M. C., Chong, J., Crook, B. E., Czaplinska, A., Dang, C. N., Datta, S., ... Jones, A. R. (2007). Genome-wide atlas of gene expression in the adult mouse brain. *Nature*, 445(7124), 168–176. <https://doi.org/10.1038/nature05453>
- Leslie, F. M. (2020). Unique, long-term effects of nicotine on adolescent brain Frances. 1–24. <https://doi.org/10.1016/j.pbb.2020.173010>. Unique
- Li, N., & Jasanoff, A. (2020). Local and global consequences of reward-evoked striatal dopamine release. *Nature*, 580(7802), 239–244. <https://doi.org/10.1038/s41586-020-2158-3>
- Liechti, M. E., & Markou, A. (2008). Role of the glutamatergic system in nicotine dependence. *CNS Drugs*, 22(9), 705–724. <https://doi.org/10.2165/00023210-200822090-00001>
- Lindson, N., Butler, A. R., McRobbie, H., Bullen, C., Hajek, P., Begh, R., Theodoulou, A., Notley, C., Rigotti, N. A., Turner, T., Livingstone-Banks, J., Morris, T., & Hartmann-Boyce, J. (2024). Electronic cigarettes for smoking cessation. *Cochrane Database of Systematic Reviews*, 2024(1). <https://doi.org/10.1002/14651858.CD010216.pub8>
- Liu, C. Y., Deng, P., Wang, B., Liu, A. H., Wang, M. G., Li, S. W., Chen, L. L., & Mao, S. C. (2023). Coumaronochromones, flavanones, and isoflavones from the twigs and leaves of *Erythrina subumbrans* inhibit PTP1B and nitric oxide production. *Phytochemistry*, 206(December 2022), 113550. <https://doi.org/10.1016/j.phytochem.2022.113550>
- Liu, L., Hendrickson, L. M., Guildford, M. J., Zhao-Shea, R., Gardner, P. D., & Tapper, A. R. (2013). Nicotinic acetylcholine receptors containing the $\alpha 4$ subunit modulate alcohol reward. *Biological Psychiatry*, 73(8), 738–746. <https://doi.org/10.1016/j.biopsych.2012.09.019>
- Logrip, M. D., Koob, G. F., & Zorrilla, E. P. (2011). Role of Corticotropin-Releasing Factor in drug addiction: Potential for Pharmacological Intervention Marian. *CNS & Neurological Disorders Drug Targets*, 25(4), 271–287. <https://doi.org/10.2165/11587790-000000000-00000>. Role

- Lovenberg, T. W., Liaw, C. W., Grigoriadis, D. E., Clevenger, W., Chalmers, D. T., De Souza, E. B., & Oltersdorf, T. (1995). Cloning and characterization of a functionally distinct corticotropin-releasing factor receptor subtype from rat brain. *Proceedings of the National Academy of Sciences of the United States of America*, 92(3), 836–840. <https://doi.org/10.1073/pnas.92.3.836>
- Luo, S. X., & Huang, E. J. (2016). Dopaminergic neurons and brain reward pathways: From neurogenesis to circuit assembly. *American Journal of Pathology*, 186(3), 478–488. <https://doi.org/10.1016/j.ajpath.2015.09.023>
- Lutfy, K., Aimiwu, O., Mangubat, M., Shin, C. S., Nerio, N., Gomez, R., Liu, Y., & Friedman, T. C. (2012). Nicotine stimulates secretion of corticosterone via both CRH and AVP receptors. *Journal of Neurochemistry*, 120(6), 1108–1116. <https://doi.org/10.1111/j.1471-4159.2011.07633.x>
- Maj, M., Turchan, J., Śmiałowska, M., & Przewłocka, B. (2003). Morphine and cocaine influence on CRF biosynthesis in the rat central nucleus of amygdala. *Neuropeptides*, 37(2), 105–110. [https://doi.org/10.1016/S0143-4179\(03\)00021-0](https://doi.org/10.1016/S0143-4179(03)00021-0)
- Mannucci, C., Navarra, M., Calzavara, E., Caputi, A. P., & Calapai, G. (2012). Serotonin involvement in *Rhodiola rosea* attenuation of nicotine withdrawal signs in rats. *Phytomedicine*, 19(12), 1117–1124. <https://doi.org/10.1016/j.phymed.2012.07.001>
- Mansbach, R. S., Chambers, L. K., & Rovetti, C. C. (2000). Effects of the competitive nicotinic antagonist *erysodine* on behavior occasioned or maintained by nicotine: Comparison with mecamylamine. *Psychopharmacology*, 148(3), 234–242. <https://doi.org/10.1007/s002130050047>
- Mansvelder, H. D., & McGehee, D. S. (2000). Long-term potentiation of excitatory inputs to brain reward areas by nicotine VTA neuron activity and ultimately DA release in the NAcc (Kalivas et al. *Neuron*, 27, 349–357.
- Mansvelder, H. D., & McGehee, D. S. (2002). Cellular and synaptic mechanisms of nicotine addiction. *Journal of Neurobiology*, 53(4), 606–617. <https://doi.org/10.1002/neu.10148>
- Marder, M. (2012). Flavonoids as GABAA receptor ligands: the whole story? *Journal of Experimental Pharmacology*, 9. <https://doi.org/10.2147/jep.s23105>
- Markou, A. (2008). Neurobiology of nicotine dependence. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 363(1507), 3159–3168. <https://doi.org/10.1098/rstb.2008.0095>
- Martins, J., & Brijesh, S. (2020). Anti-depressant activity of *Erythrina variegata* bark extract and regulation of monoamine oxidase activities in mice. In *Journal of Ethnopharmacology* (Vol. 248). Elsevier B.V. <https://doi.org/10.1016/j.jep.2019.112280>
- Matera, C., Papotto, C., Dallanocce, C., & De Amici, M. (2023). Advances in small

molecule selective ligands for heteromeric nicotinic acetylcholine receptors. *Pharmacological Research*, 194(June), 106813. <https://doi.org/10.1016/j.phrs.2023.106813>

Matsuura, H. N., & Fett-Neto, A. G. (2015). Plant alkaloids: Main features, toxicity, and mechanisms of action. *Plant Toxins*, July, 1–15. https://doi.org/10.1007/978-94-007-6728-7_2-1

Matta, S. G., Balfour, D. J., Benowitz, N. L., Boyd, R. T., Buccafusco, J. J., Caggiula, A. R., Craig, C. R., Collins, A. C., Damaj, M. I., Donny, E. C., Gardiner, P. S., Grady, S. R., Heberlein, U., Leonard, S. S., Levin, E. D., Lukas, R. J., Markou, A., Marks, M. J., McCallum, S. E., ... Zirger, J. M. (2007). Guidelines on nicotine dose selection for in vivo research. *Psychopharmacology*, 190(3), 269–319. <https://doi.org/10.1007/s00213-006-0441-0>

Melroy-Greif, W. E., Stitzel, J. A., & Ehringer, M. A. (2016). Nicotinic acetylcholine receptors: Upregulation, age-related effects and associations with drug use. *Genes, Brain and Behavior*, 15(1), 89–107. <https://doi.org/10.1111/gbb.12251>

Melroy-greif, W. E., Stitzel, J. A., Ehringer, M. A., Neuroscience, C., & Jolla, L. (2016). *Nicotinic acetylcholine receptors: upregulation, age-related effects, and associations with drug use*. 15(July 2015), 89–107. <https://doi.org/10.1111/gbb.12251>. Nicotinic

Merlugo, L., Santos, M. C., Sant'Anna, L. S., Cordeiro, E. W. F., Batista, L. A. C., Miotto, S. T. S., Garcia, C. V., Moreira, C. M., & Mendez, A. S. L. (2015). Alkaloids in erythrina by UPLC-ESI-MS and in vivo hypotensive potential of extractive preparations. *Evidence-Based Complementary and Alternative Medicine*, 2015. <https://doi.org/10.1155/2015/959081>

Mineur, Y. S., Eibl, C., Young, G., Kochevar, C., Papke, R. L., Gundisch, D., & Picciotto, M. R. (2009). Cytisine-based nicotinic partial agonists as novel antidepressant compounds. *Journal of Pharmacology and Experimental Therapeutics*, 329(1), 377–386. <https://doi.org/10.1124/jpet.108.149609>

Moroni, M., Zwart, R., Sher, E., Cassels, B. K., & Bermudez, I. (2006). $\alpha 4\beta 2$ nicotinic receptors with high and low acetylcholine sensitivity: Pharmacology, stoichiometry, and sensitivity to long-term exposure to nicotine. *Molecular Pharmacology*, 70(2), 755–768. <https://doi.org/10.1124/mol.106.023044>

Muthukrishnan, S., Palanisamy, S., Subramanian, S., Selvaraj, S., Mari, K. R., & Kuppulingam, R. (2016). Phytochemical profile of *Erythrina variegata* by using High-Performance Liquid Chromatography and Gas Chromatography-Mass Spectroscopy Analyses. *JAMS Journal of Acupuncture and Meridian Studies*, 9(4), 207–212. <https://doi.org/10.1016/j.jams.2016.06.001>

Nagaraja, T. S., Mahmood, R., Krishna, V., Thippeswamy, B. S., & Veerapur, V. P. (2012). Evaluation of anxiolytic effect of *Erythrina mysorensis* Gamb. in mice. *Indian Journal of Pharmacology*, 44(4), 489–492. <https://doi.org/10.4103/0253-7613.99316>

- Nguyen, H. N., Rasmussen, B. A., & Perry, D. C. (2004). Binding and functional activity of nicotinic cholinergic receptors in selected rat brain regions are increased following long-term but not short-term nicotine treatment. *Journal of Neurochemistry*, 90(1), 40–49. <https://doi.org/10.1111/j.1471-4159.2004.02482.x>
- Nikoloutsou, I., Vasileiou, V., Litsiou, E., Kolokytha, S., Tsoutsas, A., & Zakynthinos, S. (2014). Smoking cessation changes basic metabolism, body weight, leptin and insulin levels, adipose tissue percentage, index of insulin resistance and index of insulin secretion. *Tobacco Induced Diseases*, 12(Suppl 1), A24. <https://doi.org/10.1186/1617-9625-12-S1-A24>
- O'Dell, L. E., Bruijnzeel, A. W., Smith, R. T., Parsons, L. H., Merves, M. L., Goldberger, B. A., Richardson, H. N., Koob, G. F., & Markou, A. (2006). Diminished nicotine withdrawal in adolescent rats: Implications for vulnerability to addiction. *Psychopharmacology*, 186(4), 612–619. <https://doi.org/10.1007/s00213-006-0383-6>
- Onusic, G. M., Nogueira, R. L., Pereira, A. M. S., Flausino, J.únior, O. A., & Viana, M. de B. (2003). Effects of chronic treatment with a water-alcohol extract from *Erythrina mulungu* on anxiety-related responses in rats. *Biological and Pharmaceutical Bulletin*, 26(11), 1538–1542. <https://doi.org/10.1248/bpb.26.1538>
- Overstreet, D. H., Knapp, D. J., & Breese, G. R. (2004). Modulation of multiple ethanol withdrawal-induced anxiety-like behavior by CRF and CRF1 receptors. *Pharmacology Biochemistry and Behavior*, 77(2), 405–413. <https://doi.org/10.1016/j.pbb.2003.11.010>
- Pajai, D. D., Paul, P., & Reche, A. (2023). Pharmacotherapy in tobacco cessation: A narrative review. *Cureus*, 15(2). <https://doi.org/10.7759/cureus.35086>
- Pandey, J., Murthy, S., Dubey, R., & Awasthi, D. (2021). Study of properties and applications nicotine alkaloids. *International Journal of Pharmacology and Pharmaceutical Sciences*, 3(1), 01–04. <https://doi.org/10.33545/26647206.2021.v3.i1a.9>
- Patel, K., Allen, S., Haque, M. N., Angelescu, I., Baumeister, D., & Tracy, D. K. (2016). Bupropion: a systematic review and meta-analysis of effectiveness as an antidepressant. *Therapeutic Advances in Psychopharmacology*, 6(2), 99–144. <https://doi.org/10.1177/2045125316629071>
- Payne, L. (1991). The alkaloids of *Erythrina*: clonal evaluation and metabolic fate. 160. <http://www.fao.org/ag/agp/agpc/doc/publicat/gutt-shel/x5556e0b.htm>
- Perez, X. A., Ly, J., McIntosh, J. M., & Quirk, M. (2012). Long-term nicotine exposure depresses dopamine release in nonhuman primate nucleus accumbens. 342(2), 335–344.
- Petersen, I. N., Crestey, F., Jensen, A. A., Indurthi, D. C., Pedersen, H., Andreasen,

- J. T., Balle, T., & Kristensen, J. L. (2015). Tying up nicotine: New selective competitive antagonist of the neuronal nicotinic acetylcholine receptors. *ACS Medicinal Chemistry Letters*, 6(4), 472–475. <https://doi.org/10.1021/acsmedchemlett.5b00028>
- Phukhatmuen, P., Meesakul, P., Suthiphasilp, V., Charoensup, R., Maneerat, T., Cheenpracha, S., Limtharakul, T., Pyne, S. G., & Laphookhieo, S. (2021). Antidiabetic and antimicrobial flavonoids from the twigs and roots of *Erythrina subumbrans* (Hassk.) Merr. *Heliyon*, 7(4), e06904. <https://doi.org/10.1016/j.heliyon.2021.e06904>
- Picciotto, M. R., & Mineur, Y. S. (2014). Molecules and circuits involved in nicotine addiction: The many faces of smoking. *Neuropharmacology*, 76 Pt B(0 0), 545–553. <https://doi.org/10.1016/j.neuropharm.2013.04.028>
- Picciotto, M. R., Zoli, M., Rimondini, R., Léna, C., Marubio, L. M., Pich, E. M., Fuxe, K., & Changeux, J. P. (1998). Acetylcholine receptors containing the $\beta 2$ subunit are involved in the reinforcing properties of nicotine. *Nature*, 391(6663), 173–177. <https://doi.org/10.1038/34413>
- Pietilä, K., & Ahtee, L. (2000). Chronic nicotine administration in the drinking water affects the striatal dopamine in mice. *Pharmacology, Biochemistry, and Behavior*, 66(1), 95–103. [https://doi.org/10.1016/s0091-3057\(00\)00235-5](https://doi.org/10.1016/s0091-3057(00)00235-5)
- Pietilä, K., Lähde, T., Attila, M., Ahtee, L., & Nordberg, A. (1998). Regulation of nicotinic receptors in the brain of mice withdrawn from chronic oral nicotine treatment. *Naunyn-Schmiedeberg's Archives of Pharmacology*, 357(2), 176–182. <https://doi.org/10.1007/PL00005152>
- Pitchaiah, G., Viswanatha, G. L., Srinath, R., Nandakumar, K., Dayabaran, D., & Florance, E. J. (2010). Anxiolytic and anticonvulsant activity of aqueous extract of stem bark of *Erythrina variegata* in rodents. *International Journal of PharmTech Research*, 2(1), 40–48.
- Pitchaiah, G., Viswanatha, G., Srinath, R., & Nandakumar, K. (2008). Pharmacological evaluation of alcoholic extract of stem bark of *Erythrina Variegata* for anxiolytic and anticonvulsant activity in mice. *Pharmacologuonline*, 3, 934–947.
- Pithadia, A. (2009). 5-Hydroxytryptamine receptor subtypes and their modulators with therapeutic potentials. *Journal of Clinical Medicine Research*, 1(2), 72–80. <https://doi.org/10.4021/jocmr2009.05.1237>
- Polak, T., & Jacob, C. C. (2022). Nicotine replacement therapy. *NeuroPsychopharmacotherapy*, 6, 2569–2601. https://doi.org/10.1007/978-3-030-62059-2_398
- Pomrenze, M. B., Fetterly, T. L., Winder, D. G., & Messing, R. O. (2017). The Corticotropin Releasing Factor Receptor 1 in alcohol use disorder: Still a valid drug target? *Alcoholism: Clinical and Experimental Research*, 41(12), 1986–1999. <https://doi.org/10.1111/acer.13507>

- Quick, M. W., & Lester, R. A. J. (2002). Desensitization of neuronal nicotinic receptors. *Journal of Neurobiology*, 53(4), 457–478. <https://doi.org/10.1002/neu.10109>
- Quiroz, G., Guerra-Díaz, N., Iturriaga-Vásquez, P., Rivera-Meza, M., Quintanilla, M. E., & Sotomayor-Zárate, R. (2018). *Erysodine*, a competitive antagonist at neuronal nicotinic acetylcholine receptors, decreases ethanol consumption in alcohol-preferring UChB rats. *Behavioural Brain Research*, 349(1111), 169–176. <https://doi.org/10.1016/j.bbr.2018.04.038>
- Rahman, S., Zhang, J., Engleman, E. A., & Corrigall, W. A. (2004). Neuroadaptive changes in the mesoaccumbens dopamine system after chronic nicotine self-administration: A microdialysis study. *Neuroscience*, 129, 415–424. <https://doi.org/10.1016/j.neuroscience.2004.08.010>
- Raji, K., & Muthukumar, V. (2016a). Insilico evaluation of antismoking activity of erythrine: A computational comparison against cytosine. *International Journal of Pharmacy and Pharmaceutical Sciences*. <https://journals.innovareacademics.in/index.php/ijpps/article/view/9640/5475>
- Raji, K., & Muthukumar, V. (2016b). Insilico evaluation of antismoking activity of erythrine: A computational comparison against cytosine. *International Journal of Pharmacy and Pharmaceutical Sciences*, 8(2), 302–306.
- Rambo, D. F., Bieglmeyer, R., Toson, N. S. B., Dresch, R. R., Moreno, P. R. H., & Henriques, A. T. (2019). The genus *Erythrina* L.: A review on its alkaloids, preclinical, and clinical studies. *Phytotherapy Research*, 33(5), 1258–1276. <https://doi.org/10.1002/ptr.6321>
- Ratnasooriya, W. D., & Dharmasiri, M. G. (1999). Aqueous extract of Sri Lankan *Erythrina indica* leaves has sedative but not analgesic activity. *Fitoterapia*, 70(3), 311–313. [https://doi.org/10.1016/S0367-326X\(99\)00027-1](https://doi.org/10.1016/S0367-326X(99)00027-1)
- Raupp, I. M., Sereniki, A., Virtuoso, S., Ghislandi, C., Cavalcanti e Silva, E. L., Trebien, H. A., Miguel, O. G., & Andreatini, R. (2008). Anxiolytic-like effect of chronic treatment with *Erythrina velutina* extract in the elevated plus-maze test. *Journal of Ethnopharmacology*, 118(2), 295–299. <https://doi.org/10.1016/j.jep.2008.04.016>
- Reavill, C., Walther, B., Stolerman, I. P., & Testa, B. (1990). Behavioural and pharmacokinetic studies on nicotine, cytosine and lobeline. *Neuropharmacology*, 29(7), 619–624. [https://doi.org/10.1016/0028-3908\(90\)90022-J](https://doi.org/10.1016/0028-3908(90)90022-J)
- Refojo, D., Schweizer, M., Kuehne, C., Ehrenberg, S., Thoeringer, C., Vogl, A. M., Dedic, N., Schumacher, M., Von Wolff, G., Avrabos, C., Touma, C., Engblom, D., Schütz, G., Nave, K. A., Eder, M., Wotjak, C. T., Sillaber, I., Holsboer, F., Wurst, W., & Deussing, J. M. (2011). Glutamatergic and dopaminergic neurons mediate anxiogenic and anxiolytic effects of CRHR1. *Science*, 333(6051), 1903–1907. <https://doi.org/10.1126/science.1202107>
- Reid, M. S., Fox, L., Ho, L. B., & Berger, S. P. (2000). Nicotine stimulation of

extracellular glutamate levels in the nucleus accumbens: Neuropharmacological characterization. *Synapse*, 35(2), 129–136. [https://doi.org/10.1002/\(SICI\)1098-2396\(200002\)35:2<129::AID-SYN5>3.0.CO;2-D](https://doi.org/10.1002/(SICI)1098-2396(200002)35:2<129::AID-SYN5>3.0.CO;2-D)

Reperant, C., Pons, S., Dufour, E., Rollema, H., Gardier, A. M., & Maskos, U. (2010). Effect of the $\alpha 4 \beta 2$ * nicotinic acetylcholine receptor partial agonist varenicline on dopamine release in $\beta 2$ knock-out mice with selective re-expression of the $\beta 2$ subunit in the ventral tegmental area. *Neuropharmacology*, 58, 346–350. <https://doi.org/10.1016/j.neuropharm.2009.10.007>

Ribeiro, M. D., Onusic, G. M., Poltronieri, S. C., & Viana, M. B. (2006). Effect of *Erythrina velutina* and *Erythrina mulungu* in rats submitted to animal models of anxiety and depression. *Brazilian Journal of Medical and Biological Research*, 39(2), 263–270. <https://doi.org/10.1590/S0100-879X2006000200013>

Risdiana, N., Aulawi, K., & Sholikhah, E. N. (2025). Preclinical studies of anxiolytic and anti-depressant-like activities of *Erythrina sp.* plant extract: Systematic review and meta-analysis. *Journal of Pharmacy and Pharmacognosy Research*, 13(4), 1045–1058. https://doi.org/10.56499/jppres24.2202_13.4.1045

Risdiana, N., Susilowati, R., Nurwening Sholikhah, E., & Partadiredja, G. (2022). The Effects of *Erythrina subumbrans* (Hassk.) Merr. Leaves Extract on Nicotine Withdrawal Syndrome and $\beta 2$ nAChRs Expression in The Ventral Tegmental Area of Rats . *BIO Web of Conferences*, 49, 01002. <https://doi.org/10.1051/bioconf/20224901002>

RJ, K., TE, M., LM, H., Lu, H., Yang, Y., & EA, S. (2019). Differential expression of nicotine withdrawal as a function of developmental age in the rat. *Pharmacology, Biochemistry, and Behavior*, 187, 172802. <https://doi.org/10.1016/j.pbb.2019.172802>

Robinson, J. D., Chen, M., & Lerman, C. (2020). *Symptoms and Smoking Relapse*. 33(2), 105–116. <https://doi.org/10.1037/adb0000434>.Evaluating

Roddy, E. (2004). Bupropion and other non-nicotine pharmacotherapies Using bupropion Pharmacokinetics and interactions. *British Medical Journal*, 328, 509–511.

Roffman, J. L., Tanner, A. S., Eryilmaz, H., Rodriguez-Thompson, A., Silverstein, N. J., Ho, N. F., Nitenson, A. Z., Chonde, D. B., Greve, D. N., Abi-Dargham, A., Buckner, R. L., Manoach, D. S., Rosen, B. R., Hooker, J. M., & Catana, C. (2016). Dopamine D1 signaling organizes network dynamics underlying working memory. *Science Advances*, 2(6). <https://doi.org/10.1126/sciadv.1501672>

Rohleder, N., & Kirschbaum, C. (2006). The hypothalamic-pituitary-adrenal (HPA) axis in habitual smokers. *International Journal of Psychophysiology*, 59(3), 236–243. <https://doi.org/10.1016/j.ijpsycho.2005.10.012>

Romanelli, M. N., Gratteri, P., Guandalini, L., Martini, E., Bonaccini, C., & Gualtieri, F. (2007). Central nicotinic receptors: Structure, function, ligands, and therapeutic

potential. *ChemMedChem*, 2(6), 746–767.
<https://doi.org/10.1002/cmdc.200600207>

Rukachaisirikul, T., Innok, P., Aroonrerk, N., Boonamnuyaylap, W., Limrangsun, S., Boonyon, C., Woonjina, U., & Suksamrarn, A. (2007). Antibacterial Pterocarpans from *Erythrina subumbrans*. *Journal of Ethnopharmacology*, 110(1), 171–175. <https://doi.org/10.1016/j.jep.2006.09.022>

Rupprecht, L. E., Kreisler, A. D., Spierling, S. R., de Guglielmo, G., Kallupi, M., George, O., Donny, E. C., Zorrilla, E. P., & Sved, A. F. (2018). Self-administered nicotine increases fat metabolism and suppresses weight gain in male rats. *Psychopharmacology*, 235(4), 1131–1140. <https://doi.org/10.1007/s00213-018-4830-y>

Russo, S. J., & Nestler, E. J. (2013). The brain reward circuitry in mood disorders. *Nature Reviews Neuroscience*, 14(9), 609–625. <https://doi.org/10.1038/nrn3381>

Salgado, S., & Kaplitt, M. G. (2015). The nucleus accumbens: A comprehensive review. *Stereotactic and Functional Neurosurgery*, 93(2), 75–93. <https://doi.org/10.1159/000368279>

Sallette, J., Pons, S., Devillers-Thiery, A., Soudant, M., De Carvalho, L. P., Changeux, J. P., & Corringier, P. J. (2005). Nicotine upregulates its own receptors through enhanced intracellular maturation. *Neuron*, 46(4), 595–607. <https://doi.org/10.1016/j.neuron.2005.03.029>

Santhiya, N., Priyanga, S., Hemmalakshmi, S., & Devaki, K. (2016). Phytochemical analysis, anti inflammatory activity, in vitro antidiabetic activity and GC-MS profile of *Erythrina variegata* L. bark. *Journal of Applied Pharmaceutical Science*, 6(7), 147–155. <https://doi.org/10.7324/JAPS.2016.60722>

Sarmiento, J., Zea, S., Saa, M., & Peñaherrera, E. (2018). *O investigation / research*. 1(1), 1–14. <https://revistabionatura.com/files/CS-2018.01.01.7---Revista-bionatura.pdf>

Schultz, W. (2007). Multiple dopamine functions at different time courses. *Annual Review of Neuroscience*, 30, 259–288. <https://doi.org/10.1146/annurev.neuro.28.061604.135722>

SD, G., BR, M., AM, B., RF, T., Sellers, E., & MI, D. (2005). Nicotine physical dependence and tolerance in the mouse following chronic oral administration. *Psychopharmacology*, 178(2), 183–192. <https://doi.org/10.1007/s00213-004-2007-3>

Seibenhener, M. L., & Wooten, M. C. (2015). Use of the Open Field Maze to Measure Locomotor and Anxiety-like Behavior in Mice. *February*, 1–6. <https://doi.org/10.3791/52434>

Semba, J., & Wakuta, M. (2008). Chronic effect of nicotine on serotonin transporter mRNA in the raphe nucleus of rats: Reversal by co-administration of bupropion.

Psychiatry and Clinical Neurosciences, 62(4), 435–441.
<https://doi.org/10.1111/j.1440-1819.2008.01822.x>

Seoane-collazo, P., Diéguez, C., Nogueiras, R., Rahmouni, K., Fernández-real, J. M., & López, M. (2021). Pharmacology & therapeutics nicotine ' actions on energy balance : Friend or foe ? 219. <https://doi.org/10.1016/j.pharmthera.2020.107693>

Serafini, R. A., Pryce, K. D., & Zachariou, V. (2020). The mesolimbic dopamine system in chronic pain and associated affective comorbidities. *Biological Psychiatry*, 87(1), 64–73. <https://doi.org/10.1016/j.biopsych.2019.10.018>

Serrano Cardona, L., & Muñoz Mata, E. (2013). Paraninfo Digital. Early Human Development, 83(1), 1–11. <https://doi.org/10.1016/j.earlhumdev.2006.05.022>

Serrano, M. A. R., De Luca Batista, A. N., Da Silva Bolzani, V., De Ávila Santos, L., De Campos Nogueira, P. J., Nunes-De-Souza, R. L., Latif, A., & Arfan, M. (2011). Anxiolytic-like effects of erythrinian alkaloids from *Erythrina suberosa*. *Quimica Nova*, 34(5), 808–811.

Seth, P., Cheeta, S., Tucci, S., & File, S. E. (2002). Nicotinic-serotonergic interactions in brain and behaviour. *Pharmacology Biochemistry and Behavior*, 71(4), 795–805. [https://doi.org/10.1016/S0091-3057\(01\)00715-8](https://doi.org/10.1016/S0091-3057(01)00715-8)

Setti-Perdigão, P., Serrano, M. A. R., Flausino, O. A., Bolzani, V. S., Guimarães, M. Z. P., & Castro, N. G. (2013). *Erythrina mulungu* alkaloids are potent inhibitors of neuronal nicotinic receptor currents in mammalian cells. *PLoS ONE*, 8(12), 8–13. <https://doi.org/10.1371/journal.pone.0082726>

Shiffman, S. M., & Jarvik, M. E. (1976). Smoking withdrawal symptoms in two weeks of abstinence. *Psychopharmacology*, 50(1), 35–39. <https://doi.org/10.1007/BF00634151>

Simpson, S., Shankar, K., Kimbrough, A., & George, O. (2020). Role of corticotropin-releasing factor in alcohol and nicotine addiction. *Brain Research*, 1740(November 2019), 146850. <https://doi.org/10.1016/j.brainres.2020.146850>

Soares-Cunha, C., de Vasconcelos, N. A. P., Coimbra, B., Domingues, A. V., Silva, J. M., Loureiro-Campos, E., Gaspar, R., Sotiropoulos, I., Sousa, N., & Rodrigues, A. J. (2020). Nucleus accumbens medium spiny neurons subtypes signal both reward and aversion. *Molecular Psychiatry*, 25(12), 3241–3255. <https://doi.org/10.1038/s41380-019-0484-3>

Solomon, V. R., Tallapragada, V. J., Chebib, M., Johnston, G. A. R., & Hanrahan, J. R. (2019). GABA allosteric modulators : An overview of recent developments in non-benzodiazepine modulators. *European Journal of Medicinal Chemistry*, 171, 434–461. <https://doi.org/10.1016/j.ejmech.2019.03.043>

Souza, M. S. D., & Markou, A. (2013). The “Stop” and “Go” of Nicotine Dependence: Role of GABA and Glutamate. *Cold Spring Harb Perspect Med*, 1–18. <https://doi.org/https://doi.org/10.1101%2Fcshperspect.a012146>

- Speranza, L., Di Porzio, U., Viggiano, D., de Donato, A., & Volpicelli, F. (2021). Dopamine: The neuromodulator of long-term synaptic plasticity, reward and movement control. *Cells*, 10(4). <https://doi.org/10.3390/cells10040735>
- Spiess, J., Rivier, J., Rivier, C., & Vale, W. (1981). Primary structure of corticotropin-releasing factor from ovine hypothalamus. *Proceedings of the National Academy of Sciences of the United States of America*, 78(10), 6517–6521. <https://doi.org/10.1073/pnas.78.10.6517>
- Stahl, S. M., Pradko, J., Haight, B. R., Modell, J. G., Rockett, C. B., & Learned-Coughlin, S. (2004). A Review of the Neuropharmacology of Bupropion, a Dual Norepinephrine and Dopamine Reuptake Inhibitor. *The Primary Care Companion For CNS Disorders*, 6(4). <https://doi.org/10.4088/pcc.v06n0403>
- Stolerman, I. P., Chandler, C. J., Garcha, H. S., & Newton, J. M. (1997). Selective antagonism of behavioural effects of nicotine by *dihydro-β-erythroidine* in rats. *Psychopharmacology*, 129(4), 390–397. <https://doi.org/10.1007/s002130050205>
- Sun, Y., Duan, W., Meng, X., Li, H., & Jia, C. (2018). Varenicline is associated with a modest limitation in weight gain in smokers after smoking cessation: A meta-analysis. *Journal of Public Health (United Kingdom)*, 40(2), e126–e132. <https://doi.org/10.1093/pubmed/idx056>
- Susilawati, E., Aligita, W., Kaniawati, M., Liani, D. A., Levita, J., Susilawati, Y., & Sumiwi, S. A. (2023). Effects of *Erythrina subumbrans* (Hassk.) Merr. leaves extract on RBCs membrane stability and egg white-induced edema in rats. *Journal of Applied Pharmaceutical Science*, 14(01), 291–296. <https://doi.org/10.7324/japs.2024.141692>
- Takahashi, H., Takada, Y., Urano, T., & Takada, A. (1998). Effects of nicotine and footshock stress on dopamine release in the striatum and nucleus accumbens. *45(2)*, 157–162.
- Takeda, K., Aotani, D., Kuga, Y., Jinno, T., Guo, T., Ogawa, K., Shimizu, Y., Hattori, R., Yagi, T., Koyama, H., Matsumura, S., Kataoka, H., & Tanaka, T. (2022). A mouse model of weight gain after nicotine withdrawal. *Biochemical and Biophysical Research Communications*, 588, 140–146. <https://doi.org/10.1016/j.bbrc.2021.12.064>
- Teixeira-Silva, F., Santos, F. N., Sarasqueta, D. F. O., Alves, M. F. S., Neto, V. A., De Paula, I. C. M., Estevam, C. D. S., Antonioli, Â. R., & Marchioro, M. (2008). Benzodiazepine-like effects of the alcohol extract from *Erythrina velutina* leaves: Memory, anxiety, and epilepsy. *Pharmaceutical Biology*, 46(5), 321–328. <https://doi.org/10.1080/13880200801887658>
- Tiwari, R. K., Sharma, V., Pandey, R. K., & Shukla, S. S. (2020). Nicotine Addiction : *Neurobiology and Mechanism*. 1–7.
- Tolu, S., Eddine, R., Marti, F., David, V., Graupner, M., Pons, S., Baudonnat, M., Husson, M., Besson, M., Reperant, C., Zemdeg, J., Pagès, C., Hay, Y. A. H.,

- Lamboleze, B., Caboche, J., Gutkin, B., Gardier, A. M., Changeux, J. P., Faure, P., & Maskos, U. (2013). Co-activation of VTA da and GABA neurons mediates nicotine reinforcement. *Molecular Psychiatry*, 18(3), 382–393. <https://doi.org/10.1038/mp.2012.83>
- Tonstad, S., Arons, C., Rollema, H., Berlin, I., Hajek, P., Fagerström, K., Els, C., McRae, T., & Russ, C. (2020). Varenicline: mode of action, efficacy, safety and accumulated experience salient for clinical populations. *Current Medical Research and Opinion*, 36(5), 713–730. <https://doi.org/10.1080/03007995.2020.1729708>
- Tonstad, S., Tønnesen, P., Hajek, P., Williams, K. E., Billing, C. B., & Reeves, K. R. (2006). Effect of maintenance therapy with varenicline on smoking cessation: A randomized controlled trial. *Jama*, 296(1), 64–71. <https://doi.org/10.1001/jama.296.1.64>
- Vasconcelos, S. M. M., Macedo, D. S., de Melo, C. T. V., Monteiro, A. P., Cunha, G. M. A., Sousa, F. C. F., Viana, G. S. B., Rodrigues, A. C. P., & Silveira, E. R. (2004). Central activity of hydroalcoholic extracts from *Erythrina velutina* and *Erythrina mulungu* in mice. *Journal of Pharmacy and Pharmacology*, 56(3), 389–393. <https://doi.org/10.1211/0022357022746>
- VC, W., & Shoaib, M. (2007). Examining the clinical efficacy of bupropion and nortriptyline as smoking cessation agents in a rodent model of nicotine withdrawal. In *Psychopharmacology* (Vol. 195, Issue 3, pp. 303–313). <https://doi.org/10.1007/s00213-007-0902-0>
- Vlachou, S., Guery, S., Froestl, W., Banerjee, D., Benedict, J., Finn, M. G., & Markou, A. (2011). Repeated administration of the GABAB receptor positive modulator BHF177 decreased nicotine self-administration, and acute administration decreased cue-induced reinstatement of nicotine seeking in rats. *Psychopharmacology*, 215(1), 117–128. <https://doi.org/10.1007/s00213-010-2119-x>
- Volkow, N. D., Fowler, J. S., Wang, G. J., & Goldstein, R. Z. (2002). Role of dopamine, the frontal cortex and memory circuits in drug addiction: Insight from imaging studies. *Neurobiology of Learning and Memory*, 78(3), 610–624. <https://doi.org/10.1006/nlme.2002.4099>
- Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *N Engl J Med*, 374(4), 363–371. <https://doi.org/10.1056/NEJMra1511480>
- Volkow, N. D., Michaelides, M., & Baler, R. (2019). The neuroscience of drug reward and addiction. *Physiological Reviews*, 99(4), 2115–2140. <https://doi.org/10.1152/physrev.00014.2018>
- Walf, A. A., & Frye, C. A. (2007). The use of the elevated plus maze as an assay of anxiety-related behavior in rodents. *Nature Protocols*, 2(2), 322–328. <https://doi.org/10.1038/nprot.2007.44>

- Walker, N. B., Yan, Y., Tapia, M. A., Tucker, B. R., Thomas, L. N., George, B. E., West, A. M., Marotta, C. B., Lester, H. A., Dougherty, D. A., Holleran, K. M., Jones, S. R., & Drenan, R. M. (2023). *b 2 nAChR Activation on VTA DA Neurons Is Sufficient for Nicotine Reinforcement in Rats*. 10(May).
- Wang, H., & Sun, X. (2005). Desensitized nicotinic receptors in brain. *Brain Research Reviews*, 48(3), 420–437. <https://doi.org/10.1016/j.brainresrev.2004.09.003>
- Whiting, P. J., & Lindstrom, J. M. (1988). Characterization of bovine and human neuronal nicotinic acetylcholine receptors using monoclonal antibodies. *Journal of Neuroscience*, 8(9), 3395–3404. <https://doi.org/10.1523/jneurosci.08-09-03395.1988>
- Widiastuti, N. K., Virginia, N. M., Yastawan, I. M. F., Permatasari, A. A. A. P., Wiradana, P. A., Widhiantara, I. G., & Sucipto, T. H. (2023). Cytotoxicity evaluation of *Erythrina lithosperma* Miq. leaf extract against vero cell lines: *In vitro* study. *Research Journal of Pharmacy and Technology*, 16(1), 153–158. <https://doi.org/10.52711/0974-360X.2023.00028>
- Wills, L., Ables, J. L., Braunscheidel, K. M., Caligiuri, S. P. B., Elayouby, K. S., Fillinger, C., Ishikawa, M., Moen, J. K., & Kenny, P. J. (2022). Neurobiological mechanisms of nicotine reward and aversion. *Pharmacological Reviews*, 74(1), 271–310. <https://doi.org/10.1124/PHARMREV.121.000299>
- Wise, R. A., & Robble, M. A. (2020). Dopamine and addiction. *Annual Review of Psychology*, 71, 79–106.
- Wittenberg, R. E., Wolfman, S. L., De Biasi, M., & Dani, J. A. (2021). Nicotinic acetylcholine receptors and nicotine addiction: A Brief Introduction. *Neuropharmacology*. <https://doi.org/10.1016/j.neuropharm.2020.108256>. Nicotinic
- Wolfe, S. A., Sidhu, H., Patel, R. R., Kreifeldt, M., D'ambrosio, S. R., Contet, C., & Roberto, M. (2019). Molecular, morphological, and functional characterization of corticotropin-releasing factor receptor 1-expressing neurons in the central nucleus of the amygdala. *ENeuro*, 6(3). <https://doi.org/10.1523/ENEURO.0087-19.2019>
- Xi, Z. X., Spiller, K., & Gardner, E. L. (2009). Mechanism-based medication development for the treatment of nicotine dependence. *Acta Pharmacologica Sinica*, 30(6), 723–739. <https://doi.org/10.1038/aps.2009.46>
- Yashwant Kumar, A., Nandakumar, K., Handral, M., Talwar, S., & Dhayabaran, D. (2011). Hypoglycaemic and anti-diabetic activity of stem bark extracts *Erythrina indica* in normal and alloxan-induced diabetic rats. *Saudi Pharmaceutical Journal*, 19(1), 35–42. <https://doi.org/10.1016/j.jsps.2010.10.001>
- Yu, L. F., Zhang, H. K., Caldarone, B. J., Eaton, J. B., Lukas, R. J., & Kozikowski, A. P. (2014). Recent developments in novel antidepressants targeting $\alpha 4\beta 2$ -nicotinic acetylcholine receptors. *Journal of Medicinal Chemistry*, 57(20), 8204–

8223. <https://doi.org/10.1021/jm401937a>

- Yu, R., Tae, H. S., Xu, Q., Craik, D. J., Adams, D. J., Jiang, T., & Kaas, Q. (2019). Molecular dynamics simulations of *dihydro-β-erythroidine* bound to the human α4β2 nicotinic acetylcholine receptor. *British Journal of Pharmacology*, 176(15), 2750–2763. <https://doi.org/10.1111/bph.14698>
- Zambrano, C. A., Short, C. A., Salamander, R. M., Grady, S. R., & Marks, M. J. (2015). Density of α4β2 nAChR on the surface of neurons is modulated by chronic antagonist exposure. 1–14. <https://doi.org/10.1002/prp2.111>
- Zhang, L., Dong, Y., Doyon, W. M., & Dani, J. A. (2012). Withdrawal from chronic nicotine exposure alters dopamine signaling dynamics in the nucleus accumbens. 71(3), 184–191. <https://doi.org/10.1016/j.biopsych.2011.07.024>.
- Zhao-Shea, R., Liu, L., Soll, L. G., Improgo, M. R., Meyers, E. E., McIntosh, J. M., Grady, S. R., Marks, M. J., Gardner, P. D., & Tapper, A. R. (2011). Nicotine-mediated activation of dopaminergic neurons in distinct regions of the ventral tegmental area. *Neuropsychopharmacology*, 36(5), 1021–1032. <https://doi.org/10.1038/npp.2010.240>
- Zheng, F., Zheng, G., Deaciuc, A. G., Zhan, C. G., Dwoskin, L. P., & Crooks, P. A. (2009). Computational neural network analysis of the affinity of N-n-alkylnicotinium salts for the α4β2* nicotinic acetylcholine receptor. *Journal of Enzyme Inhibition and Medicinal Chemistry*, 24(1), 157–168. <https://doi.org/10.1080/14756360801945648>
- Zoli, M., Léna, C., Picciotto, M. R., & Changeux, J. P. (1998). Identification of four classes of brain nicotinic receptors using β mutant mice. *Journal of Neuroscience*, 18(12), 4461–4472. <https://doi.org/10.1523/jneurosci.18-12-04461.1998>
- Zorrilla, E. P., Logrip, M. L., & Koob, G. F. (2014). Corticotropin releasing factor: A key role in the neurobiology of addiction. *Frontiers in Neuroendocrinology*, 35(2), 234–244. <https://doi.org/10.1016/j.yfrne.2014.01.001>.Corticotropin
- Zorrilla, E. P., Valdez, G. R., & Weiss, F. (2001). Changes in levels of regional CRF-like-immunoreactivity and plasma corticosterone during protracted drug withdrawal in dependent rats. *Psychopharmacology*, 158(4), 374–381. <https://doi.org/10.1007/s002130100773>