

DAFTAR PUSTAKA

- Abhimanyu Kedar, K., Chaudhari, S. R., & Rao, A. S. 2017, A Validated HPTLC Method for the Quantification of B-Sitosterol In Leaves, Bark of Putranjiva Roxburghii Wall, *National Conference on Research and Developments in Synthetic Organic Chemistry*, **13**.
- Anacker, C., Zunszain, P. A., Carvalho, L. A., & Pariante, C. M. 2011, The glucocorticoid receptor: Pivot of depression and of antidepressant treatment?, *Psychoneuroendocrinology*, **36**: 3.
- Araújo, L. B. D. C., Silva, S. L., Galvão, M. A. M., Ferreira, M. R. A., Araújo, E. L., Randau, K. P., & Soares, L. A. L. (2013). Total phytosterol content in drug materials and extracts from roots of *Acanthospermum hispidum* by UV-VIS spectrophotometry, *Rev Bras Farmacogn*, **23**: 736-742.
- Asnis, G. M., & Henderson, M. A. 2015, Levomilnacipran for the treatment of major depressive disorder: a review, *Neuropsychiatric Disease and Treatment*, **11**: 125.
- Astutik, E., Hidajah, A. C., Tama, T. D., Efendi, F., & Li, C. Y. 2021, Prevalence and determinants of depressive symptoms among adults in Indonesia: A cross-sectional population-based national survey. *Nursing Forum*, **56**: 37–44.
- Athanasiadis, V., Chatzimitakos, T., Bozinou, E., Kotsou, K., Palaiogiannis, D., & Lalas, S. I. 2023, Optimization of Extraction Parameters for Enhanced Recovery of Bioactive Compounds from Quince Peels Using Response Surface Methodology, *Foods*, **12**: 2099.
- Balakrishnan, N. 2021, *Handbook of the Logistic Distribution*, 1st edition, CRC Press, Boca Raton, London.
- Balitbangkes RI. 2018, *Laporan Nasional Riskesdas 2018*, Jakarta, Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan.
- Belovicova, K., Bogi, E., Csatlosova, K., & Dubovicky, M. 2017, Animal tests for anxiety-like and depression-like behavior in rats. *Interdisciplinary Toxicology*, **10**: 40.
- Blasco-Serra, A., González-Soler, E. M., Cervera-Ferri, A., Teruel-Martí, V., & Valverde-Navarro, A. A. 2017, A standardization of the Novelty-Suppressed Feeding Test protocol in rats. *Neuroscience Letters*, **658**: 73–78.

- Bortolato, M., Chen, K., & Shih, J. C. 2008, Monoamine oxidase inactivation: from pathophysiology to therapeutics, *Advanced Drug Delivery Reviews*, **60**: 13–14
- Castrén, E., & Rantamäki, T. 2010, The role of BDNF and its receptors in depression and antidepressant drug action: Reactivation of developmental plasticity, *Developmental Neurobiology*, **70**: 289–297.
- Chhillar, R., & Dhingra, D. (2013). Antidepressant-like activity of gallic acid in mice subjected to unpredictable chronic mild stress, *Fundamental & Clinical Pharmacology*, **27**: 409–418.
- Chu, A., & Wadhwa, R. 2023, *Selective Serotonin Reuptake Inhibitors*, StatPearls, Florida, Amerika Serikat.
- Cimpoi, C. 2011, HPTLC Hyphenated with FTIR: Principles, Instrumentation and Qualitative Analysis and Quantitation, In: Srivastava, M. (eds) *High-Performance Thin-Layer Chromatography (HPTLC)*, Springer, Berlin, Heidelberg.
- Correia, A. S., Cardoso, A., & Vale, N. 2023, BDNF Unveiled: Exploring Its Role in Major Depression Disorder Serotonergic Imbalance and Associated Stress Conditions. *Pharmaceutics*, **15**: 2081.
- Courtney, N. A., & Ford, C. P. 2015, Mechanisms of 5-HT_{1A} receptor-mediated transmission in dorsal raphe serotonin neurons. *The Journal of Physiology*, **594**: 953.
- Cryan, J. F., Markou, A., & Lucki, I. 2002, Assessing antidepressant activity in rodents: Recent developments and future needs, *Trends in Pharmacological Sciences*, **23**: 238–245.
- Cuong, D. M., Sathasivam, R., Park, C. H., Yeo, H. J., Park, Y. E., Kim, J. K., & Park, S. U. 2021, Analysis of triterpenoids, carotenoids, and phenylpropanoids in the flowers, leaves, roots, and stems of white bitter melon (*Cucurbitaceae*, *Momordica charantia*), *Tropical Journal of Pharmaceutical Research*, **20**:155–160.
- Dalimartha, S. 1999, *Atlas tumbuhan obat Indonesia*. Trubus Agriwidya, Jakarta, Indonesia

- Dalmagro, A. P., Holzmann, I., Zimath, P. L., Cazarin, C. A., & de Souza, M. M. (2022). Antidepressant-like effect of caffeic acid: Involvement of the cellular signaling pathways, *Brazilian Journal of Pharmaceutical Sciences*, **58**: e20023.
- Davis, R., & Wilde, M. I. 1996, Mirtazapine : A Review of its Pharmacology and Therapeutic Potential in the Management of Major Depression, *CNS Drugs*, **5**: 389–402.
- De Munter, J., Pavlov, D., Gorlova, A., Sicker, M., Proshin, A., Kalueff, A. V., Svistunov, A., Kiselev, D., Nedorubov, A., Morozov, S., Umriukhin, A., Lesch, K. P., Strekalova, T., & Schroeter, C. A. 2021, Increased Oxidative Stress in the Prefrontal Cortex as a Shared Feature of Depressive- and PTSD-Like Syndromes: Effects of a Standardized Herbal Antioxidant. *Frontiers in Nutrition*, **8**: 122.
- Deng, Z., Yuan, C., Yang, J., Peng, Y., Wang, W., Wang, Y., & Gao, W. 2018, Behavioral defects induced by chronic social defeat stress are protected by *Momordica charantia* polysaccharides via attenuation of JNK3/PI3K/AKT neuroinflammatory pathway, *Annals of Translational Medicine*, **7**: 1-11.
- Desai, S., & Tatke, P. 2015, Charantin: An important lead compound from *Momordica charantia* for the treatment of diabetes, *Journal of Pharmacognosy and Phytochemistry*, **3**, 163–166.
- Desai, S., Tatke, P., Mane, T., & Gabhe, S. 2021, Isolation, characterization and quantitative HPLC-DAD analysis of components of charantin from fruits of *Momordica charantia*. *Food Chemistry*, **345**: 128717.
- Dewi, M., Priatna, M., & Suhendy, H. 2021, View of Perbandingan Aktivitas Antidepresan Ekstrak etanolik Daun Pare (*Momordica charantia* L.) Berdasarkan Siklus Sirkadian. *journal.unper*, **596**: 497.
- Dewi, T., Pratama, S., & Maulana, R. 2024. Drug Related Problems (Drps) Pada Pasien Depresi Di Instalasi Rawat Inap Rumah Sakit Jiwa Prof. Dr Soerojo Magelang Jawa Tengah, *Jurnal Farmasi Malahayati*, **7**: 54-65.
- Di Giovanni, G., Esposito, E., & Di Matteo, V. 2010, Role of Serotonin in Central Dopamine Dysfunction, *CNS Neuroscience & Therapeutics*, **16**:179.
- Ding, H., Cui, X. Y., Cui, S. Y., Ye, H., Hu, X., Zhao, H. L., Liu, Y. T., & Zhang, Y. H. 2018, Depression-like behaviors induced by chronic corticosterone exposure via drinking water: Time-course analysis, *Neuroscience Letters*, **687**: 202–206.

- Dong, H., Gao, Z., Rong, H., Jin, M., & Zhang, X. 2014, β -asarone reverses chronic unpredictable mild stress-induced depression-like behavior and promotes hippocampal neurogenesis in rats. *Molecules*, **19**: 5634–5649.
- APA. 2013, *Diagnostic and statistical manual of mental disorder (DSM-5-TR)*, 5 ed, American Psychiatric Association, Virginia, Amerika Serikat.
- Duman, R. S., & Monteggia, L. M. 2006, A Neurotrophic Model for Stress-Related Mood Disorders, *Biological Psychiatry*, **59**:1116–1127.
- Dwi Aristyawan, A., Fiska Yuliarni, F., Suryandari, M., Ari Anggraini, N., Farmasi Surabaya, A., & Timur, J. 2024, Skrining Fitokimia Ekstrak etanolik Jamur Kuping Hitam (*Auricularia nigricans*) Dengan Metode Soxletas, *Jurnal Farmasi Sains dan Obat Tradisional*, **118**.
- Edinoff, A. N., Akuly, H. A., Hanna, T. A., Ochoa, C. O., Patti, S. J., Ghaffar, Y. A., Kaye, A. D., Viswanath, O., Urits, I., Boyer, A. G., Cornett, E. M., & Kaye, A. M. 2021, Selective Serotonin Reuptake Inhibitors and Adverse Effects: A Narrative Review, *Neurology International*, **13**: 387-401
- Ekong, M. B., & Iniodu, C. F. 2021, Nutritional therapy can reduce the burden of depression management in low income countries: A review, *IBRO Neuroscience Reports*, **11**:15–28.
- Ekor, M. 2014, The growing use of herbal medicines: Issues relating to adverse reactions and challenges in monitoring safety, *Frontiers in Neurology*, **177**.
- Elhai, J. D., Contractor, A. A., Tamburrino, M., Fine, T. H., Prescott, M. R., Shirley, E., Chan, P. K., Slembariski, R., Liberzon, I., Galea, S., & Calabrese, J. R. 2012, The factor structure of major depression symptoms: a test of four competing models using the Patient Health Questionnaire-9, *Psychiatry Research*, **199**:169–173.
- Elsevier. 2024, Mental and Behavioral Health: Serotonin Norepinephrine Reuptake Inhibitors (SNRIs). *Elsevier*, viewed 18 August 2025, <<https://elsevier.health/en-US/preview/serotonin-norepinephrine-reuptake-inhibitors-snrri>>
- Ferguson, J. M. 2001, SSRI Antidepressant Medications: Adverse Effects and Tolerability. *Primary Care Companion to The Journal of Clinical Psychiatry*, **3**: 22.

- FHI. 2017, Farmakope Herbal Indonesia Edisi II, *Kementerian Kesehatan Republik Indonesia*.
- FHI. 2022, Suplemen I Farmakope Herbal Indonesia Edisi II. *Kementerian Kesehatan Republik Indonesia*.
- Fiedorowicz, J. G., & Swartz, K. L. 2004, The Role of Monoamine Oxidase Inhibitors in Current Psychiatric Practice, *Journal of Psychiatric Practice*, **10**: 239.
- Fitriadi, H. 2025. Evaluasi Kepatuhan Penggunaan Obat Antidepresan pada Pasien Depresi di RSJ Dr. Radjiman Wediodiningrat Lawang, Kabupaten Malang, *Tesis*, MSc, Universitas Islam Negeri Maulana Malik Ibrahim.
- Foudah, A. I., Alqarni, M. H., Alam, A., Devi, S., Salkini, M. A., & Alam, P. (2022). Rutin Improves Anxiety and Reserpine-Induced Depression in Rats. *Molecules*, **27**: 7313.
- Fritz, M., Fakhoury, M., Markov, D. D., & Novosadova, E. V. 2022, Chronic Unpredictable Mild Stress Model of Depression: Possible Sources of Poor Reproducibility and Latent Variables. *Biology* 2022, **11**: 1621.
- Ganesan, A., Natesan, S., Perumal, P. G., Vellayutham, R., Manickam, K., & Ramasamy, N. 2007, Anxiolytic, antidepressant and anti-inflammatory activities of methanol extract of *Momordica charantia* Linn. Leaves (Cucurbitaceae), *Iranian Journal Of Pharmacology & Therapeutics*, **7**: 43-47
- Gandjar, G., & Rohman, A. 2012, *Analisis Obat Secara Spektrofotometri dan Kromatografi*, Kanisius, Yogyakarta, Indonesia.
- Gao, L., Wu, C., Liao, Y., Zhang, S., & Zhao, J. 2021, Herba Rhodiolae alleviates depression via the BDNF/TrkB-GSK-3 β signaling pathway, *Annals of Translational Medicine*, **9**:1758–1758.
- Garg, V., Dhar, V. J., Sharma, A., & Dutt, R. 2012, Facts about standardization of herbal medicine: a review. *Zhong Xi Yi Jie He Xue Bao, Journal of Chinese Integrative Medicine*, **10**:1077–1083.
- Gillman, P. K. 2007, Tricyclic antidepressant pharmacology and therapeutic drug interactions updated, *British Journal of Pharmacology*, **151**:737.
- Grace, A. A. 2016, Dysregulation of the dopamine system in the pathophysiology of schizophrenia and depression, *Nature Reviews. Neuroscience*, **17**:524.

- Grover, J. K., & Yadav, S. P. 2004, Pharmacological actions and potential uses of *Momordica charantia*: a review, *Journal of Ethnopharmacology*, **93**:123–132.
- Harmer, C. J., Duman, R. S., & Cowen, P. J. 2017, How do antidepressants work? New perspectives for refining future treatment approaches, *The Lancet. Psychiatry*, **4**:409–418.
- Haseeb M, A., Ahmad, F., & Kumar, A. 2018, Antidepressant activity of aqueous extract of *Momordica charantia* leaves, *International Journal of Basic & Clinical Pharmacology*, **7**:767–773.
- Horst, W. D., & Preskorn, S. H. 1998, Mechanisms of action and clinical characteristics of three atypical antidepressants: venlafaxine, nefazodone, bupropion, *Journal of Affective Disorders*, **51**:237–254.
- Hossen, M. A., Ali Reza, A. S. M., Amin, M. B., Nasrin, M. S., Khan, T. A., Rajib, M. H. R., Tareq, A. M., Haque, M. A., Rahman, M. A., & Haque, M. A. 2021, Bioactive metabolites of *Blumea lacera* attenuate anxiety and depression in rodents and computer-aided model, *Food Science & Nutrition*, **9**: 3836–3851.
- Hu, Y., Gan, Y., Lei, J., Cai, J., Zhou, Y., Chen, H., Zhang, Q., & Shi, Y. 2025, Schaftoside Reduces Depression- and Anxiogenic-like Behaviors in Mice Depression Models, *Brain Sciences*, **15**: 238.
- Huecker, M. R., Smiley, A., & Saadabadi, A. 2024, Bupropion. *XPharm: The Comprehensive Pharmacology Reference*, **1**: 4.
- European Medicines Agency. 1995, *ICH Topic Q 2 (R1): Validation of Analytical Procedures: Text and Methodology Step 5*, London, European Medicines Agency
- Ishola, I. O., Akinyede, A. A., & Sholarin, A. M. 2014, Antidepressant and anxiolytic properties of the methanolic extract of *Momordica charantia* Linn. (Cucurbitaceae) and its mechanism of action. *Drug Research*, **64**: 368–376.
- Kandangath, K. R., Kumar, G. P., & Ilaiyaraja, N. 2015, Nutritional, Pharmacological and Medicinal Properties of *Momordica Charantia*. *International Journal of Nutrition and Food Sciences*, **4**: 75–83.
- Kaur, I., Suthar, N., Kaur, J., Bansal, Y., & Bansal, G. 2016, Accelerated Stability Studies on Dried Extracts of *Centella asiatica* Through Chemical, HPLC,

HPTLC, and Biological Activity Analyses, *Journal of Evidence-Based Complementary and Alternative Medicine*, **21**: 127–137.

Kementerian Kesehatan. 1994, *Peraturan Menteri Kesehatan Republik Indonesia, Nomor:661/MENKES/SK/VII/1994, tentang Persyaratan Obat Tradisional*, Jakarta, Kementerian Kesehatan Republik Indonesia.

Kementerian Kesehatan. 2024. *Laporan Tematik Survei Kesehatan Indonesia Tahun 2023*, Jakarta, Kementerian Kesehatan Republik Indonesia.

Kessing, L. V. 2007, Epidemiology of subtypes of depression, *Acta Psychiatrica Scandinavica*, **115**: 85–89.

Khan, N., Ahmad, I., & Sadiq, M. B. 2022, Optimization of Ultrasonic Assisted Extraction of Bioactive Compounds from Almond Hull, *Sarhad Journal of Agriculture*, **38**: 676–684.

Krishnan, V., & Nestler, E. J. 2011, Animal Models of Depression: Molecular Perspectives, *Current Topics in Behavioral Neurosciences*, **7**: 121.

Kristiyani, A., Ikawati, Z., Gani, A. P., & Sofro, Z. M. 2024, Animal models for antidepressant activity assay on natural and conventional agents: A review of preclinical testing, *Journal of Herbmед Pharmacology*, **13**: 523–536.

Laban, T. S., & Saadabadi, A. (2023). *Monoamine Oxidase Inhibitors (MAOI)*, StatPearls Publishing LLC, Bethesda, USA.

Levy, M. J. F., Boulle, F., Emerit, M. B., Poilbout, C., Steinbusch, H. W. M., Van den Hove, D. L. A., Kenis, G., & Lanfumey, L. 2019, 5-HTT independent effects of fluoxetine on neuroplasticity. *Scientific Reports* **9**: 1–11.

Li, H. Y., Wang, J., Liang, L. F., Shen, S. Y., Li, W., Chen, X. R., Li, B., Zhang, Y. Q., & Yu, J. 2022, Sirtuin 3 Plays a Critical Role in the Antidepressant- and Anxiolytic-like Effects of Kaempferol. *Antioxidants*, **11**:1886.

Li, Y. X., Cheng, K. C., Hsu, C. T., Cheng, J. T., & Yang, T. T. 2022, Major Plant in Herbal Mixture Gan-Mai-Da-Zao for the Alleviation of Depression in Rat Models, *Plants* 2022, **11**: 258.

Lim, G. Y., Tam, W. W., Lu, Y., Ho, C. S., Zhang, M. W., & Ho, R. C. 2018, Prevalence of Depression in the Community from 30 Countries between 1994 and 2014, *Scientific*, **8**: 1–10.

- Lin, L., Herselman, M. F., Zhou, X. F., & Bobrovskaya, L. 2022, Effects of corticosterone on BDNF expression and mood behaviours in mice, *Physiology & Behavior*, **247**: 113721.
- Lindholm, J. S. O., & Castrén, E. 2014, Mice with altered BDNF signaling as models for mood disorders and antidepressant effects, *Frontiers in Behavioral Neuroscience*, **8**: 88043.
- Liu, Y., Lv, B., Tang, K., Qu, H., Yu, F., & Shi, Y. 2023, Si-Ni-San reverses dietary fat absorption defects in a murine model of depression, *Biomedicine & Pharmacotherapy*, **168**: 115677.
- Liu, Y., Zhao, J., & Guo, W. 2018, Emotional roles of mono-aminergic neurotransmitters in major depressive disorder and anxiety disorders, *Frontiers in Psychology*, **9**: 412042.
- Machado, M., Iskedjian, M., Ruiz, I., & Einarson, T. R. 2006, Remission, dropouts, and adverse drug reaction rates in major depressive disorder: a meta-analysis of head-to-head trials, *Current Medical Research and Opinion*, **22**:1825–1837.
- Mada, S. B., Garba, A., Mohammed, H. A., Muhammad, A., & Olagunju, A. 2013, Antimicrobial activity and phytochemical screening of aqueous and ethanol extracts of *Momordica charantia* L. leaves, *Journal of Medicinal Plants Research* **7**: 579–586.
- Maier, A., Riedel-Heller, S. G., Pabst, A., & Lupp, M. 2021, Risk factors and protective factors of depression in older people . A systematic review, *Plos One*, **16**: e0251326.
- Maletic, V., Robinson, M., Oakes, T., Iyengar, S., Ball, S. G., & Russell, J. 2007, Neurobiology of depression: an integrated view of key findings, *International Journal of Clinical Practice*, **61**: 2030–2040.
- Markov, D. D., & Novosadova, E. V. 2022, Chronic Unpredictable Mild Stress Model of Depression: Possible Sources of Poor Reproducibility and Latent Variables. *Biology*, **11**: 1621.
- Martínez-Damas, M. G., Genis-Mendoza, A. D., Cruz, V. P. de la, Canela-Tellez, G. D., Jiménez-Estrada, I., Sanchez, J. H. N., Ramos-Chávez, L. A., García, S., Ramírez-Ramírez, M., & Coral-Vázquez, R. M. (2021). Epicatechin treatment generates resilience to chronic mild stress-induced depression in a murine model, *Physiology & Behavior*, **238**

- Martins, J., & Brijesh, S. 2018, Phytochemistry and pharmacology of anti-depressant medicinal plants: A review, *Biomed Pharmacother*, **104**: 343–365.
- McKlveen, J. M., Myers, B., & Herman, J. P. 2015, The medial prefrontal cortex: coordinator of autonomic, neuroendocrine and behavioural responses to stress, *Journal of Neuroendocrinology*, **27**: 446–456.
- Millan, M. J. 2004, The role of monoamines in the actions of established and “novel” antidepressant agents: a critical review, *European Journal of Pharmacology*, **500**: 371–384.
- MIMS Indonesia. 2024, Fluoxetine: Uses, Dosage, Side Effects and More, *MIMS Indonesia*, diakses pada 3 Desember 2024, <https://www.mims.com/indonesia/drug/info/fluoxetine?mtype=generic>.
- Missale, C., Russel Nash, S., Robinson, S. W., Jaber, M., & Caron, M. G. 1998, Dopamine receptors: from structure to function, *Physiological Reviews*, **78**: 189–225.
- Miyanishi, H., & Nitta, A. 2021, A Role of BDNF in the Depression Pathogenesis and a Potential Target as Antidepressant: The Modulator of Stress Sensitivity “Shati/Nat81-BDNF System” in the Dorsal Striatum, *Pharmaceuticals*, **14**: 889.
- Molendijk, M. L., Spinhoven, P., Polak, M., Bus, B. A. A., Penninx, B. W. J. H., & Elzinga, B. M. 2014, Serum BDNF concentrations as peripheral manifestations of depression: evidence from a systematic review and meta-analyses on 179 associations (N=9484), *Molecular Psychiatry*, **19**: 791–800.
- Moncrieff, J., Cooper, R. E., Stockmann, T., Amendola, S., Hengartner, M. P., & Horowitz, M. A. 2022, The serotonin theory of depression: a systematic umbrella review of the evidence, *Molecular Psychiatry*, **28**: 3243–3256.
- Mondal, A. C., & Fatima, M. 2019, Direct and indirect evidences of BDNF and NGF as key modulators in depression: role of antidepressants treatment, *International Journal of Neuroscience*, **129**: 283–296.
- Moret, C., & Briley, M. 2011, The importance of norepinephrine in depression, *Neuropsychiatric Disease and Treatment*, **7**: 9–13.
- Nabila Virdausy, V., Sabrina, E. A., Jannah, A., & Virdausy, V. N. 2025, A Literature Review: Active Compound Content and Pharmacological Activity of Bitter Melon Plant (*Momordica charantia* L.) for Health, *Jurnal Biologi Tropis*, **25**: 220–234.

- Nestler, E. J., & Carlezon, W. A. 2006, The Mesolimbic Dopamine Reward Circuit in Depression, *Biological Psychiatry*, **59**: 1151–1159.
- Ogata, N., de Souza Dantas, L. M., & Crowell-Davis, S. L. 2023, Selective Serotonin Reuptake Inhibitors, *Veterinary Psychopharmacology*, **103**: 128.
- Oh, D. R., Choi, C., Kim, M. J., Mun, B. Y., Ko, H., Oh, K. N., Jo, A., Kim, J. Y., & Bae, D. 2023, Antidepressant effects of p-coumaric acid isolated from *Vaccinium bracteatum* leaves extract on chronic restraint stress mouse model and antagonism of serotonin 6 receptor in vitro, *Journal of Phytotherapy and Phytopharmacology*, **116**
- Olausson, P., Kiraly, D. D., Gourley, S. L., & Taylor, J. R. 2012, Persistent effects of prior chronic exposure to corticosterone on reward-related learning and motivation in rodents, *Psychopharmacology*, **225**: 569.
- Panayotis, N., Freund, P. A., Marvaldi, L., Shalit, T., Brandis, A., Mehlman, T., Tsoory, M. M., & Fainzilber, M. 2021, β -sitosterol reduces anxiety and synergizes with established anxiolytic drugs in mice, *Cell Reports Medicine*, **2**: 100281.
- Pangestu, S. T., Anggadiredja, K., & Garmana, A. N. 2021, *Aktivitas Antidepresan Konsentrat Jus Buah Pare (Momordica Charantia L.) Pada Mencit DDY*. Tesis, M.Sc. Sains dan Teknologi Farmasi, Institut Teknologi Bandung, Bandung
- Pariante, C. M., & Lightman, S. L. 2008, The HPA axis in major depression: classical theories and new developments, *Trends in Neurosciences*, **31**: 464–468.
- Perry, K. W., & Fuller, R. W. 1997, Fluoxetine increases norepinephrine release in rat hypothalamus as measured by tissue levels of MHPG-SO₄ and microdialysis in conscious rats, *Journal of Neural Transmission*, **104**: 953–966.
- Pierscionek, T., Adekunle, O., Watson, S., Ferrier, I. N., & Alabi, A. 2014, Role of corticosteroids in the antidepressant response, *ChronoPhysiology and Therapy*, **4**: 87–98.
- Porter, C., Favara, M., Hittmeyer, A., Scott, D., Sánchez Jiménez, A., Ellanki, R., Woldehanna, T., Duc, L. T., Craske, M. G., & Stein, A. 2021, Impact of the COVID-19 pandemic on anxiety and depression symptoms of young people in the global south: evidence from a four-country cohort study, *BMJ Open*, **11**.

- Qu, S. Y., Li, X. Y., Heng, X., Qi, Y. Y., Ge, P. Y., Ni, S. J., Yao, Z. Y., Guo, R., Yang, N. Y., Cao, Y., Zhang, Q. C., & Zhu, H. X. 2021, Analysis of Antidepressant Activity of Huang-Lian Jie-Du Decoction Through Network Pharmacology and Metabolomics, *Frontiers in Pharmacology*, **12**: 1–18.
- Ramaholimihaso, T., Bouazzaoui, F., & Kaladjian, A. 2020, Curcumin in Depression: Potential Mechanisms of Action and Current Evidence - A Narrative Review, *Frontiers in Psychiatry*, **11**: 572533.
- Raubenheimer, P. J., Young, E. A., Andrew, R., & Seckl, J. R. 2006, The role of corticosterone in human hypothalamic–pituitary–adrenal axis feedback, *Clinical Endocrinology*, **65**: 22-26.
- Raza, A., Akhtar, M. N., Maqbool, T., Khalil, A. A., & Mohamed, M. H. 2024, Optimization of ultrasonically extracted β -sitosterol from *Berberis jaeschkeana* using response surface methodology, *Food Science & Nutrition*, **12**: 8211–8219.
- Ren, L., Zhang, H., Tao, W., Chen, Y., Zou, Z., Guo, X. Y., Shen, Q., Feng, Q., & Hu, J. (2022). The Rapid and Long-Lasting Antidepressant Effects of Iridoid Fraction in *Gardenia Jasminoides* J.Ellis Are Dependent on Activating PKA-CREB Signaling Pathway, *Frontiers in Pharmacology*, **13**: 1590.
- Rondón Bernard, J. E. 2018, Depression: A Review of its Definition. *MOJ Addiction Medicine & Therapy*, **1**: 6-7
- Rush, A. J. 2004, *4.7 Mood Disorders: Treatment Of Depression*, Lippincott Williams & Wilkins, Pennsylvania, USA.
- Sairanen, M., Lucas, G., Ernfors, P., Castrén, M., & Castrén, E. 2005, Brain-Derived Neurotrophic Factor and Antidepressant Drugs Have Different But Coordinated Effects on Neuronal Turnover, Proliferation, and Survival in the Adult Dentate Gyrus, *The Journal of Neuroscience*, **25**: 1089.
- Salunkhe, R., Gadgoli, C., Naik, A., & Patil, N. 2021, Pharmacokinetic Profile and Oral Bioavailability of Diosgenin, Charantin, and Hydroxychalcone From a Polyherbal Formulation, *Frontiers in Pharmacology*, **12**: 1–14.
- Sanguhl, K., Klein, T. E., & Altman, R. B. 2009, Selective Serotonin Reuptake Inhibitors (SSRI) Pathway, *Pharmacogenetics and Genomics*, **19**: 907.
- Santarelli, L., Saxe, M., Gross, C., Surget, A., Battaglia, F., Dulawa, S., Weisstaub, N., Lee, J., Duman, R., Arancio, O., Belzung, C., & Hen, R. 2003, Requirement of

hippocampal neurogenesis for the behavioral effects of antidepressants, *Science*, **301**: 805–809.

Sapolsky, R. M., Romero, L. M., & Munck, A. U. 2000, How Do Glucocorticoids Influence Stress Responses? Integrating Permissive, Suppressive, Stimulatory, and Preparative Actions, *Endocrine Reviews*, **21**: 55–89.

Sarris, J., Panossian, A., Schweitzer, I., Stough, C., & Scholey, A. 2011, Herbal medicine for depression, anxiety and insomnia: A review of psychopharmacology and clinical evidence, *European Neuropsychopharmacology*, **21**: 841–860.

Sasaki, K., Linh, T. N., Hirano, A., Tominaga, K., Nukaga, S., Nozaki, H., Arimura, T., & Isoda, H. 2022, Microalgae extract induces antidepressant-like activity via neuroinflammation regulation and enhances the neurotransmitter system, *Food and Chemical Toxicology*, **170**: 113508.

Sathish Kumar, D., Vamshi Sharathnath, K., Yogeswaran, P., Harani, A., Sudhakar, K., Sudha, P., & Banji, D. 2010, A medicinal potency of *Momordica charantia*, *International Journal of Pharmaceutical Sciences Review and Research*, **1**: 95–100.

Sen, A., Dhavan, P., Shukla, K. K., Singh, S., & Tejavathi, G. 2012, Analysis of IR, NMR and Antimicrobial Activity of β -Sitosterol Isolated from *Momordica charantia*, *Sci Secure J Biotech*, **1**: 9–13.

Shao, Q., Li, Y., Jin, L., Zhou, S., Fu, X., Liu, T., Luo, G., Du, S., & Chen, C. 2024, Semen *Cuscutae* flavonoids activated the cAMP-PKA-CREB-BDNF pathway and exerted an antidepressant effect in mice, *Frontiers in Pharmacology*, **15**:1491900.

Sheffler, Z. M., & Abdijadid, S. 2023, *Antidepressants*, StatPearls Publishing LLC, Bethesda, USA

Shen, L., Pang, S., Zhong, M., Sun, Y., Qayum, A., Liu, Y., Rashid, A., Xu, B., Liang, Q., Ma, H., & Ren, X. 2023, A comprehensive review of ultrasonic assisted extraction (UAE) for bioactive components: Principles, advantages, equipment, and combined technologies. *Ultrasonics Sonochemistry*, **101**

Simanjuntak, T. D., Noveyani, A. E., & Kinanthi, C. A. 2022, Prevalensi dan Faktor-faktor yang Berhubungan dengan Simtom Depresi pada Penduduk di Indonesia (Analisis Data IFLS5 Tahun 2014-2015, *Jurnal Epidemiologi Kesehatan Indonesia*, **6**: 97–104.

- Singh, J. B., Fedgchin, M., Daly, E., Xi, L., Melman, C., De Bruecker, G., Tadic, A., Sienaert, P., Wiegand, F., Manji, H., Drevets, W. C., & Van Nueten, L. 2016, Intravenous Esketamine in Adult Treatment-Resistant Depression: A Double-Blind, Double-Randomization, Placebo-Controlled Study, *Biological Psychiatry*, **80**: 424–431.
- Spinks, D., & Spinks, G. 2004, Serotonin reuptake inhibition: an update on current research strategies, *Frontiers Current Medicinal Chemistry*, **1**: 347-359.
- 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, *Primary Care Companion to the Journal of Clinical Psychiatry*, **6**: 159-166.
- Stochmal, A., Oleszek, W., & Kapusta, I. 2008, TLC of Triterpenes (Including Saponins), *TSuresh*, **20**: 519-542
- Sturm, M., Becker, A., Schroeder, A., Bilkei-Gorzo, A., & Zimmer, A. 2015, Effect of chronic corticosterone application on depression-like behavior in C57BL/6N and C57BL/6J mice, *Genes, Brain, and Behavior*, **14** : 292–300.
- Sudarsono, D., Gunawan, S., Wahyono, I. A., Donatus, & Purnomo. 2002, *Tumbuhan obat*, Pusat Studi Obat Tradisional Universitas Gadjah Mada, Yogyakarta, Indonesia.
- Sutradhar, J., & R. Sarkar, B. 2023, Quantification of β -Sitosterol by Validated High Performance Thin Layer Chromatography (HPTLC) Densitometric Method in the Flowering Buds of *Mesua ferrea* Linn, *Journal of Scientific Research*, **15**: 879–886.
- Tabata, R. C., Wilson, J. M. B., Ly, P., Zwiegers, P., Kwok, D., Van Kampen, J. M., Cashman, N., & Shaw, C. A. 2008, Chronic exposure to dietary sterol glucosides is neurotoxic to motor neurons and induces an ALS-PDC phenotype, *NeuroMolecular Medicine*, **10**: 24–39.
- Tamilanban, T., Chitra, K., & Chitra, V. 2018, In vitro neuroprotective effect of charantin from *Momordica charantia* against neurotoxin and endoplasmic reticulum stress-induced cell death in SH-SY5Y cells, *International Journal of Green Pharmacy*, **12**: S555–S560.
- Tkachenko, Y., & Niedzielski, P. 2022, FTIR as a Method for Qualitative Assessment of Solid Samples in Geochemical Research: A Review, *Molecules*, **27**: 8846.

- Tolentino, J. C., & Schmidt, S. L. 2018, DSM-5 Criteria and Depression Severity: Implications for Clinical Practice, *Frontiers in Psychiatry*, **9**: 450.
- Ueno, H., Takahashi, Y., Murakami, S., Wani, K., Matsumoto, Y., Okamoto, M., & Ishihara, T. 2022, Effect of simultaneous testing of two mice in the tail suspension test and forced swim test, *Scientific Reports*, **12**: 1–14.
- Upadhyay, A., Agrahari, P., & Singh, D. K. 2015, A review on salient pharmacological features of momordica charantia, *International Journal of Pharmacology*, **11**: 405–413.
- Voleti, B., & Duman, R. S. 2012, The roles of neurotrophic factor and Wnt signaling in depression, *Clinical Pharmacology and Therapeutics*, **91**: 333–338.
- Wang, H., Liu, J., He, J., Huang, D., Xi, Y., Xiao, T., Ouyang, Q., Zhang, S., Wan, S., & Chen, X. 2022, Potential mechanisms underlying the therapeutic roles of sinisan formula in depression: Based on network pharmacology and molecular docking study, *Frontiers in Psychiatry*, **13**: 1063489.
- Wang, Q., Timberlake, M. A., Prall, K., & Dwivedi, Y. 2017, The Recent Progress in Animal Models of Depression, *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, **77**: 99.
- Wang, Y., Zhou, S., Song, X., Ding, S., Wang, B., Wen, J., & Chen, C. 2022, Study on Antidepressant Effect and Mechanism of Crocin Mediated by the mTOR Signaling Pathway, *Neurochemical Research*, **47**: 3126–3136.
- Wang, H., Chen, Y., Wang, L., Liu, Q., Yang, S., & Wang, C. 2023, Advancing herbal medicine: enhancing product quality and safety through robust quality control practices, *Frontiers in Pharmacology*, **14**: 1265178.
- World Health Organization. 2017, *Depression and Other Common Mental Disorders*. Switzerland, WHO.
- World Health Organization. 2023, *World Suicide Prevention Day 2023*, Cairo, WHO.
- Willner, P. 2005, Chronic mild stress (CMS) revisited: consistency and behavioural-neurobiological concordance in the effects of CMS, *Neuropsychobiology*, **52**: 90–110.
- Wu, J., Chen, H., Li, H., Tang, Y., Yang, L., Cao, S., & Qin, D. 2016, Antidepressant Potential of Chlorogenic Acid-Enriched Extract from *Eucommia ulmoides*

Oliver Bark with Neuron Protection and Promotion of Serotonin Release through Enhancing Synapsin I Expression, *Molecules*, **21**:1-17.

Wu, L. M., Hu, M. H., Tong, X. H., Han, H., Shen, N., Jin, R. T., Wang, W., Zhou, G. X., He, G. P., & Liu, Y. S. 2012, Chronic Unpredictable Stress Decreases Expression of Brain-Derived Neurotrophic Factor (BDNF) in Mouse Ovaries: Relationship to Oocytes Developmental Potential. *PLoS ONE*, **7**: 3–10.

Xie, X., Shen, Q., Ma, L., Chen, Y., Zhao, B., & Fu, Z. 2018, Chronic corticosterone-induced depression mediates premature aging in rats. *Journal of Affective Disorders*, **229**: 254–261.

Yadid, G., & Friedman, A. 2008, Dynamics of the dopaminergic system as a key component to the understanding of depression, *Progress in Brain Research*, **172**: 265–286.

Ye, J. Y., Li, L., Hao, Q. M., Qin, Y., & Ma, C. S. 2019, β -Sitosterol treatment attenuates cognitive deficits and prevents amyloid plaque deposition in amyloid protein precursor/presenilin 1 mice. *The Korean Journal of Physiology & Pharmacology*, **24**: 39.

Yeung, K. S., Hernandez, M., Mao, J. J., Haviland, I., & Gubili, J. 2018, Herbal medicine for depression and anxiety: A systematic review with assessment of potential psycho-oncologic relevance. *Phytotherapy Research*, **32**: 865–891

Yin, Y., Liu, X., Liu, J., Cai, E., Zhao, Y., Li, H., Zhang, L., Li, P., & Gao, Y. 2018, The effect of beta-sitosterol and its derivatives on depression by the modification of 5-HT, DA and GABA-ergic systems in mice, *RSC Advances*, **8**: 671–680

Yoon, B. H., Truong, V. L., & Jeong, W. S. (2025). Phytosterols: Extraction Methods, Analytical Techniques, and Biological Activity, *Molecules*, **30**: 2488

Yoshime, L. T., de MELO, I. L. P., Sattler, J. A. G., Torres, R. P., & Mancini-Filho, J. 2019, Bioactive compounds and the antioxidant capacities of seed oils from pomegranate (*Punica granatum* L.) and bitter gourd (*Momordica charantia* L.). *Food Science and Technology*, **39**: 571–580.

Yoshime, L. T., Pereira De Melo, I. L., Augusto, J., Sattler, G., Bonifácio, E., De Carvalho, T., & Mancini-Filho, J. 2016, Bitter gourd (*Momordica charantia* L.) seed oil as a naturally rich source of bioactive compounds for nutraceutical purposes, *Nutrire*, **41**: 1-7.

- Youdim, K. A., Shukitt-Hale, B., & Joseph, J. A. 2004, Flavonoids and the brain: interactions at the blood-brain barrier and their physiological effects on the central nervous system, *Free Radical Biology & Medicine*, **37** : 1683–1693.
- Zeni, A. L. B., Camargo, A., & Dalmagro, A. P. (2019). Lutein prevents corticosterone-induced depressive-like behavior in mice with the involvement of antioxidant and neuroprotective activities, *Pharmacology, Biochemistry, and Behavior*, **179**: 63–72.
- Zhang, H., Xue, X., Pan, J., Song, X., Chang, X., Mao, Q., Lu, Y., Zhao, H., Wang, Y., Chi, X., Wang, S., & Ma, K. 2021, Integrated analysis of the chemical-material basis and molecular mechanisms for the classic herbal formula of Lily Bulb and Rehmannia Decoction in alleviating depression, *Chinese Medicine*, **16**: 1–28.
- Zhao, D., Zheng, L., Qi, L., Wang, S., Guan, L., Xia, Y., & Cai, J. 2016, Structural Features and Potent Antidepressant Effects of Total Sterols and β -sitosterol Extracted from *Sargassum horneri*, *Marine Drugs* 2016, Vol. 14, Page 123, **14**: 123.
- Zou, C., Ding, X., Flaherty, J. H., & Dong, B. 2013, Clinical efficacy and safety of fluoxetine in generalized anxiety disorder in Chinese patients, *Neuropsychiatric Disease and Treatment*, **9**: 1661.