

## DAFTAR PUSTAKA

- Abdallah, C.G., Geha, P., 2017. Chronic Pain and Chronic Stress: Two Sides of the Same Coin? *Chronic Stress.* doi:10.1177/2470547017704763
- Ahmed, A.F., Al-tubuly, R.A., Saad, S.E.A., Fayed, M.S., Sawan, M.S., 2018. Roles of  $\beta$  - adrenergic receptors on the mechanism of action of imipramine in chronic mild stress model of depression. *Lebda Med. J.* 5: 168–179.
- ALPCO, 2013. Mouse and Rat Corticosterone ELISA For the quantitative determination of corticosterone in rat and mouse serum or plasma 1–8.
- Alqurashi, G.K., Hindi, E.A., Zayed, M.A., Abd El-Aziz, G.S., Alturkistani, H.A., Ibrahim, R.F., Al-theipyani, M.A., Bakhligi, R., Alzahrani, N.A., Ashraf, G.M., Alghamdi, B.S., 2022. The Impact of Chronic Unpredictable Mild Stress-Induced Depression on Spatial, Recognition and Reference Memory Tasks in Mice: Behavioral and Histological Study. *Behav. Sci. (Basel).* 12: 166. doi:10.3390/bs12060166
- Alves-Bezerra, M., Cohen, D.E., 2018. Triglyceride metabolism in the liver. *Compr. Physiol.* 8: 1–22. doi:10.1002/cphy.c170012
- Amaghnojje, A., Mechchate, H., Es-safi, I., Alotaibi, A.A., Noman, O.M., Nasr, F.A., Al-zharani, M., Cerruti, P., Calarco, A., EL Fatemi, H., Grafov, A., Bousta, D., 2020. Anxiolytic, Antidepressant-Like Proprietes and Impact on the Memory of the Hydro-Ethanolic Extract of Origanum majorana L. on Mice. *Appl. Sci.* 10: 8420. doi:10.3390/app10238420
- Amer, A., Breu, J., McDermott, J., Wurtman, R.J., Maher, T.J., 2004. 5-Hydroxy-l-tryptophan suppresses food intake in food-deprived and stressed rats. *Pharmacol. Biochem. Behav.* 77: 137–143. doi:10.1016/j.pbb.2003.10.011
- Amini Khoozani, A., Birch, J., Bekhit, A.E.D.A., 2019. Production, application and health effects of banana pulp and peel flour in the food industry. *J. Food Sci. Technol.* doi:10.1007/s13197-018-03562-z
- Antoniuk, S., Bijata, M., Ponimaskin, E., Włodarczyk, J., 2019. Chronic unpredictable mild stress for modeling depression in rodents: Meta-analysis of model reliability. *Neurosci. Biobehav. Rev.* 99: 101–116. doi:10.1016/j.neubiorev.2018.12.002
- Anyan, J., Amir, S., 2018. Too Depressed to Swim or Too Afraid to Stop? A Reinterpretation of the Forced Swim Test as a Measure of Anxiety-Like Behavior. *Neuropsychopharmacology* 43: 931–933. doi:10.1038/npp.2017.260
- Armario, A., 2021. The forced swim test: Historical, conceptual and methodological considerations and its relationship with individual behavioral traits. *Neurosci. Biobehav. Rev.* 128: 74–86. doi:10.1016/j.neubiorev.2021.06.014
- Barnhart, C.D., Yang, D., Lein, P.J., 2015. Using the Morris Water Maze to Assess Spatial Learning and Memory in Weanling Mice. *PLoS One* 10: e0124521. doi:10.1371/journal.pone.0124521
- Berg, M., Polyzos, K.A., Agardh, H., Baumgartner, R., Forteza, M.J., Kareinen, I., Gisterå, A.,



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN TRIGLISERIDA DARAH  
PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS  
YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ  
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Bottcher, G., Hurt-Camejo, E., Hansson, G.K., Ketelhuth, D.F.J., 2020. 3-Hydroxyanthralinic acid metabolism controls the hepatic SREBP/lipoprotein axis, inhibits inflammasome activation in macrophages, and decreases atherosclerosis in Ldlr<sup>-/-</sup> mice. *Cardiovasc. Res.* 116: 1948–1957. doi:10.1093/cvr/cvz258
- Blossom, V., Gokul, M., Kumar, N.A., Kini, R.D., Nayak, S., Bhagyalakshmi, K., 2020. Chronic unpredictable stress-induced inflammation and quantitative analysis of neurons of distinct brain regions in Wistar rat model of comorbid depression. *Vet. World* 13: 1870–1874. doi:10.14202/vetworld.2020.1870-1874
- Branyan, K.W., Devallance, E.R., Lemaster, K.A., Skinner, R.C., Bryner, R.W., Olfert, I.M., Kelley, E.E., Frisbee, J.C., Chantler, P.D., 2018. Role of Chronic Stress and Exercise on Microvascular Function in Metabolic Syndrome. *Med. Sci. Sports Exerc.* 50: 957–966. doi:10.1249/MSS.0000000000001531
- Brooks, S.D., Hileman, S.M., Chantler, P.D., Milde, S.A., Lemaster, K.A., Frisbee, S.J., Shoemaker, J.K., Jackson, D.N., Frisbee, J.C., 2018. Protection from vascular dysfunction in female rats with chronic stress and depressive symptoms. *Am J Physiol Hear. Circ Physiol* 314: 1070–1084. doi:10.1152/ajpheart.00647.2017.-The
- Calabrese, F., Brivio, P., Sbrini, G., Gruca, P., Lason, M., Litwa, E., Niemczyk, M., Papp, M., Riva, M.A., 2020. Effect of lurasidone treatment on chronic mild stress-induced behavioural deficits in male rats: The potential role for glucocorticoid receptor signalling. *J. Psychopharmacol.* 34: 420–428. doi:10.1177/0269881119895547
- Chahirou, Y., Lamtai, M., Mesfioui, A., Ouichou, A., Coulibaly, M., Boussekkour, R., El Hessni, A., 2018. Impact of the Association of a High Fructose Diet and Chronic Mild Stress on Metabolic and Affective Disorders in Male Rat. *J. Behav. Brain Sci.* 08: 157–170. doi:10.4236/jbbs.2018.84010
- Chen, Y., Yu, Y., Qiao, J., Zhu, L., Xiao, Z., 2020. Mineralocorticoid receptor excessive activation involved in glucocorticoid-related brain injury. *Biomed. Pharmacother.* 122: 109695. doi:10.1016/j.biopha.2019.109695
- Comai, S., Bertazzo, A., Brughera, M., Crotti, S., 2020. Tryptophan in health and disease, in: *Advances in Clinical Chemistry*. Academic Press Inc., pp. 165–218. doi:10.1016/bs.acc.2019.08.005
- Contreras, C., Nogueiras, R., Diéguez, C., Rahmouni, K., López, M., 2017. Traveling from the hypothalamus to the adipose tissue: The thermogenic pathway. *Redox Biol.* doi:10.1016/j.redox.2017.04.019
- Cui, J., Lian, Y., Zhao, C., Du, H., Han, Y., Gao, W., Xiao, H., Zheng, J., 2019. Dietary Fibers from Fruits and Vegetables and Their Health Benefits via Modulation of Gut Microbiota. *Compr. Rev. Food Sci. Food Saf.* doi:10.1111/1541-4337.12489
- Dalkner, N., Platzer, M., Bengesser, S.A., Birner, A., Fellendorf, F.T., Queissner, R., Painold, A., Mangge, H., Fuchs, D., Reininghaus, B., Kapfhammer, H.P., Holasek, S.J., Reininghaus, E.Z., 2018. The role of tryptophan metabolism and food craving in the relationship between obesity and bipolar disorder. *Clin. Nutr.* 37: 1744–1751. doi:10.1016/j.clnu.2017.06.024



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN TRIGLISERIDA DARAH  
PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS  
YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ  
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Dhabhar, F.S., 2018. The short-term stress response – Mother nature's mechanism for enhancing protection and performance under conditions of threat, challenge, and opportunity. *Front. Neuroendocrinol.* doi:10.1016/j.yfrne.2018.03.004

Duan, K.M., Ma, J.H., Wang, S.Y., Huang, Z.D., Zhou, Y.Y., Yu, H.Y., 2018. The role of tryptophan metabolism in postpartum depression. *Metab. Brain Dis.* doi:10.1007/s11011-017-0178-y

Fatchurohmah, W., Meliala, A., 2017. Pengaruh Pemberian Ekstrak Kulit Pisang Kepok Kuning (Musa balbisiana) Terhadap Asupan Makan dan Berat Badan Pada Tikus Wistar (Rattus norvegicus) Jantan. *Scr. Biol.* 4: 193. doi:10.20884/1.sb.2017.4.3.463

Faught, E., Vijayan, M.M., 2019. Postnatal triglyceride accumulation is regulated by mineralocorticoid receptor activation under basal and stress conditions. *J. Physiol.* 597: 4927–4941. doi:10.1113/JP278088

Gao, K., Mu, C.L., Farzi, A., Zhu, W.Y., 2020. Tryptophan Metabolism: A Link between the Gut Microbiota and Brain. *Adv. Nutr.* doi:10.1093/advances/nmz127

Gao, S., Wang, X., Meng, L.B., Zhang, Y.M., Luo, Y., Gong, T., Liu, D.P., Chen, Z.G., Li, Y.J., 2022. Recent Progress of Chronic Stress in the Development of Atherosclerosis. *Oxid. Med. Cell. Longev.* doi:10.1155/2022/4121173

Geisler, C.E., Renquist, B.J., 2017. Title: Hepatic Lipid Accumulation: Cause and Consequence of Dysregulated Glucoregulatory Hormones 1 2 Authors.

Gelpi, M., Ueland, P.M., Trøseid, M., Mocroft, A., Lebech, A.M., Ullum, H., Midttun, Ø., Lundgren, J., Nielsen, S.D., 2020. Abdominal Adipose Tissue Is Associated With Alterations in Tryptophan-Kynurenine Metabolism and Markers of Systemic Inflammation in People With Human Immunodeficiency Virus. *J. Infect. Dis.* 221: 419–427. doi:10.1093/infdis/jiz465

Giacomini, A.C.V.V., Piassetta, A.S., Genario, R., Bonan, C.D., Piatto, A., Barcellos, L.J.G., de Abreu, M.S., 2020. Tryptophan alleviates neuroendocrine and behavioral responses to stress in zebrafish. *Behav. Brain Res.* 378. doi:10.1016/j.bbr.2019.112264

Gibson, E.L., 2018. Tryptophan supplementation and serotonin function: Genetic variations in behavioural effects, in: Proceedings of the Nutrition Society. Cambridge University Press, pp. 174–188. doi:10.1017/S0029665117004451

Gokul, M., Arun Kumar, N., Durgadas Kini, R., Blossom, V., Kodavanji, B., Noojibail, A., Murali, N., Vishwanath Rai, S.P., 2019. Evaluation of biomarkers of stress in chronic stress-exposed comorbid depression model Wistar rats. *J. Basic Clin. Physiol. Pharmacol.* 30. doi:10.1515/jbcpp-2018-0215

Gomez-Sanchez, C.E., Gomez-Sanchez, E.P., 2022. Extra-adrenal Glucocorticoid and Mineralocorticoid Biosynthesis. *Endocrinology* 163. doi:10.1210/endocr/bqac016

González-Torres, M.L., dos Santos, C.V., 2019. Uncontrollable chronic stress affects eating behavior in rats. *Stress* 22: 501–508. doi:10.1080/10253890.2019.1596079

Goodarzi, P., Habibi, M., Roberts, K., Sutton, J., Shili, C.N., Lin, D., Pezeshki, A., 2021. Dietary



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN

TRIGLISERIDA DARAH

PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS

YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

tryptophan supplementation alters fat and glucose metabolism in a low-birthweight piglet model. *Nutrients* 13. doi:10.3390/nu13082561

Grigorută, M., Martínez-Martínez, A., Dagda, R.Y., Dagda, R.K., 2020. Psychological Stress Phenocopies Brain Mitochondrial Dysfunction and Motor Deficits as Observed in a Parkinsonian Rat Model. *Mol. Neurobiol.* 57: 1781–1798. doi:10.1007/s12035-019-01838-9

Habib, M.Z., Ebeid, M.A., el Faramawy, Y., Saad, S.S.T., El Magdoub, H.M., Attia, A.A., Aboul-Fotouh, S., Abdel-Tawab, A.M., 2020. Effects of lithium on cytokine neuro-inflammatory mediators, Wnt/β-catenin signaling and microglial activation in the hippocampus of chronic mild stress-exposed rats. *Toxicol. Appl. Pharmacol.* 399: 115073. doi:10.1016/j.taap.2020.115073

Hackett, R.A., Dal, Z., Steptoe, A., 2020. The relationship between sleep problems and cortisol in people with type 2 diabetes. *Psychoneuroendocrinology* 117. doi:10.1016/j.psyneuen.2020.104688

Hakamata, Y., Komi, S., Moriguchi, Y., Izawa, S., Motomura, Y., Sato, E., Mizukami, S., Kim, Y., Hanakawa, T., Inoue, Y., Tagaya, H., 2017. Amygdala-centred functional connectivity affects daily cortisol concentrations: A putative link with anxiety. *Sci. Rep.* 7. doi:10.1038/s41598-017-08918-7

He, L., Zeng, L., Tian, N., Li, Y., He, T., Tan, D., Zhang, Q., Tan, Y., 2020. Optimization of food deprivation and sucrose preference test in SD rat model undergoing chronic unpredictable mild stress. *Anim. Model. Exp. Med.* 3: 69–78. doi:10.1002/ame.212107

Herhaus, B., Ullmann, E., Chrousos, G., Petrowski, K., 2020. High/low cortisol reactivity and food intake in people with obesity and healthy weight. *Transl. Psychiatry* 10. doi:10.1038/s41398-020-0729-6

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: 146–155. doi:10.3390/stresses2010011

Horowitz, M.A., Cattaneo, A., Cattane, N., Lopizzo, N., Tojo, L., Bakunina, N., Musaelyan, K., Borsini, A., Zunszain, P.A., Pariante, C.M., 2020. Glucocorticoids prime the inflammatory response of human hippocampal cells through up-regulation of inflammatory pathways. *Brain. Behav. Immun.* 87: 777–794. doi:10.1016/j.bbi.2020.03.012

Huang, Y.-J., Hsu, N.-Y., Lu, K.-H., Lin, Y.-E., Lin, S.-H., Lu, Y.-S., Liu, W.-T., Chen, M.-H., Sheen, L.-Y., 2020. Poria cocos water extract ameliorates the behavioral deficits induced by unpredictable chronic mild stress in rats by down-regulating inflammation. *J. Ethnopharmacol.* 258: 112566. doi:10.1016/j.jep.2020.112566

Ihedioha, J.I., Noel-Uneke, O.A., Ihedioha, T.E., 2013. Reference values for the serum lipid profile of albino rats (*Rattus norvegicus*) of varied ages and sexes. *Comp. Clin. Path.* 22: 93–99. doi:10.1007/s00580-011-1372-7

Iob, E., Steptoe, A., 2019. Cardiovascular Disease and Hair Cortisol: a Novel Biomarker of Chronic Stress. *Curr. Cardiol. Rep.* doi:10.1007/s11886-019-1208-7

Jeong, J.Y., Lee, D.H., Kang, S.S., 2013. Effects of Chronic Restraint Stress on Body Weight,



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN  
TRIGLISERIDA DARAH  
PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS  
YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ  
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Food Intake, and Hypothalamic Gene Expressions in Mice. *Endocrinol. Metab.* 28: 288.  
doi:10.3803/enm.2013.28.4.288

Jia, Y., Liu, L., Sheng, C., Cheng, Z., Cui, L., Li, M., Zhao, Y., Shi, T., Yau, T.O., Li, F., Chen, L., 2019. Increased serum levels of cortisol and inflammatory cytokines in people with depression. *J. Nerv. Ment. Dis.* 207: 271–276. doi:10.1097/NMD.0000000000000957

Jones, C., Gwenin, C., 2021. Cortisol level dysregulation and its prevalence—Is it nature's alarm clock? *Physiol. Rep.* doi:10.14814/phy2.14644

Joos, C.M., McDonald, A., Wadsworth, M.E., 2019. Extending the toxic stress model into adolescence: Profiles of cortisol reactivity. *Psychoneuroendocrinology* 107: 46–58.  
doi:10.1016/j.psyneuen.2019.05.002

Kara, N.Z., Stukalin, Y., Einat, H., 2018. Revisiting the validity of the mouse forced swim test: Systematic review and meta-analysis of the effects of prototypic antidepressants. *Neurosci. Biobehav. Rev.* 84: 1–11. doi:10.1016/j.neubiorev.2017.11.003

Karin, O., Raz, M., Tendler, A., Bar, A., Korem Kohanim, Y., Milo, T., Alon, U., 2020. A new model for the HPA axis explains dysregulation of stress hormones on the timescale of weeks. *Mol. Syst. Biol.* 16. doi:10.15252/msb.20209510

Khan, A.R., Geiger, L., Wiborg, O., Czéh, B., 2020. Stress-Induced Morphological, Cellular and Molecular Changes in the Brain—Lessons Learned from the Chronic Mild Stress Model of Depression. *Cells* 9: 1026. doi:10.3390/cells9041026

Kraeuter, A.-K., Guest, P.C., Sarnyai, Z., 2019. The Elevated Plus Maze Test for Measuring Anxiety-Like Behavior in Rodents. pp. 69–74. doi:10.1007/978-1-4939-8994-2\_4

Kraithong, S., Issara, U., 2021. A strategic review on plant by-product from banana harvesting: A potentially bio-based ingredient for approaching novel food and agro-industry sustainability. *J. Saudi Soc. Agric. Sci.* doi:10.1016/j.jssas.2021.06.004

Lee, D.Y., Kim, E., Choi, M.H., 2015. Technical and clinical aspects of cortisol as a biochemical marker of chronic stress. *BMB Rep.* 48: 209–216. doi:10.5483/BMBRep.2015.48.4.275

Lee, R.A., Harris, C.A., Wang, J.-C., 2018. Glucocorticoid Receptor and Adipocyte Biology. *Nucl. Recept. Res.* 5: 1–21. doi:10.32527/2018/101373

Li, M., van Esch, B.C.A.M., Wagenaar, G.T.M., Garssen, J., Folkerts, G., Henricks, P.A.J., 2018. Pro- and anti-inflammatory effects of short chain fatty acids on immune and endothelial cells. *Eur. J. Pharmacol.* 831: 52–59. doi:10.1016/j.ejphar.2018.05.003

Lischka, J., Schanzer, A., Baumgartner, M., de Gier, C., Greber-Platzer, S., Zeyda, M., 2022. Tryptophan Metabolism Is Associated with BMI and Adipose Tissue Mass and Linked to Metabolic Disease in Pediatric Obesity. *Nutrients* 14. doi:10.3390/nu14020286

Liu, S.-C., Hu, W.-Y., Zhang, W.-Y., Yang, L., Li, Y., Xiao, Z.-C., Zhang, M., He, Z.-Y., 2019. Paeoniflorin attenuates impairment of spatial learning and hippocampal long-term potentiation in mice subjected to chronic unpredictable mild stress. *Psychopharmacology (Berl).* 236: 2823–2834. doi:10.1007/s00213-019-05257-5



López López, A., 2018. Chronic Unpredictable Mild Stress Progressively Disturbs Glucose Metabolism and Appetite Hormones In Rats. *Acta Endocrinol.* 14: 16–23. doi:10.4183/aeb.2018.16

Lowrance, S.A., Ionadi, A., McKay, E., Douglas, X., D.Johnson, J., 2016. Sympathetic Nervous System Contributes to Enhanced Corticosterone Levels Following Chronic Stress. *Psychoneuroendocrinology* 68: 139–148. doi:10.1016/j.psyneuen.2016.02.027.Sympathetic

Lu, Y., Cui, X., Zhang, L., Wang, X., Xu, Y., Qin, Z., Liu, G., Wang, Q., Tian, K., Lim, K.S., Charles, C.J., Zhang, J., Tang, J., 2022. The Functional Role of Lipoproteins in Atherosclerosis: Novel Directions for Diagnosis and Targeting Therapy. *Aging Dis.* doi:10.14336/AD.2021.0929

Lupien, S.J., Juster, R.P., Raymond, C., Marin, M.F., 2018. The effects of chronic stress on the human brain: From neurotoxicity, to vulnerability, to opportunity. *Front. Neuroendocrinol.* doi:10.1016/j.yfrne.2018.02.001

Lustikaiswi, D.K., Yuliani, S., Annura, R., Rahmadani, E., 2021. Tryptophan in banana peel (*Musa paradisiaca*) as an anti-dementia alternative treatment: A narrative review. *J. Kedokt. dan Kesehat. Indones.* doi:10.20885/JKKI.Vol12.Iss2.art11

Lustikasiwi, D.K., Yuliani, S., Annura, R., Rahmadani, E., 2021. Tryptophan in banana peel (*Musa paradisiaca*) as an anti-dementia alternative treatment: A narrative review Article Review. *J. Kedokt. dan Kesehat. Indones.* 12. doi:10.20885/JKKI.Vol12.Iss2.art11

Ma, Q., Chen, J., Zhou, X., Hu, L., Sun, Y., Wang, Z., Yue, Z., Shan, A., 2021. Dietary supplementation with aromatic amino acids decreased triglycerides and alleviated hepatic steatosis by stimulating bile acid synthesis in mice. *Food Funct.* 12: 267–277. doi:10.1039/DFO02364G

Maramis, M.M., Mahajudin, M.S., Khotib, J., 2021. Impaired Cognitive Flexibility and Working Memory Precedes Depression: A Rat Model to Study Depression. *Neuropsychobiology* 80: 225–233. doi:10.1159/000508682

Mathiesen, L., Bay-Richter, C., Wegener, G., Liebenberg, N., Knudsen, L.E., 2020. Maternal stress and placental function; Ex vivo placental perfusion studying cortisol, cortisone, tryptophan and serotonin. *PLoS One* 15. doi:10.1371/journal.pone.0233979

Messaoud, A., Mensi, R., Douki, W., Neffati, F., Najjar, M.F., Gobbi, G., Valtorta, F., Gaha, L., Comai, S., 2019. Reduced peripheral availability of tryptophan and increased activation of the kynurenine pathway and cortisol correlate with major depression and suicide. *World J. Biol. Psychiatry* 20: 703–711. doi:10.1080/15622975.2018.1468031

Milutinović, D.V., Brkljačić, J., Teofilović, A., Bursać, B., Nikolić, M., Gligorovska, L., Kovačević, S., Djordjević, A., Preitner, F., Tappy, L., Matić, G., Veličković, N., 2020. Chronic Stress Potentiates High Fructose-Induced Lipogenesis in Rat Liver and Kidney. *Mol. Nutr. Food Res.* 64. doi:10.1002/mnfr.201901141

Mirtha Guerrero-Alva, D., 2019. Flavonoids of Organic Banana Peels (&lt;i&gt;Musa cavendishii&lt;/i&gt;). *Int. J. Food Sci. Biotechnol.* 4: 40. doi:10.11648/j.ijfsb.20190402.12

Motavalli, R., Majidi, T., Pourlak, T., Abediazar, S., Shoja, M.M., Zununi Vahed, S., Etemadi, J.,



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN TRIGLISERIDA DARAH  
PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS  
YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ  
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

2021. The clinical significance of the glucocorticoid receptors: Genetics and epigenetics. *J. Steroid Biochem. Mol. Biol.*. doi:10.1016/j.jsbmb.2021.105952

Mu, J., Wang, X., Wang, Q., Cheng, F., Zhu, W., Li, C., Ma, C., Zhai, C., Lian, Y., Du, X., 2019. Molecular mechanism of non-alcoholic fatty liver disease induced and aggravated by chronic stress through HSL/ATGL-FFA which promotes fat mobilization. *J. Tradit. Chinese Med. Sci.* 6: 315–324. doi:10.1016/j.jtcms.2019.08.001

Muneer, A., 2020. Kynurenone Pathway of Tryptophan Metabolism in Neuropsychiatric Disorders: Pathophysiologic and Therapeutic Considerations. *Clin. Psychopharmacol. Neurosci.* doi:10.9758/CPN.2020.18.4.507

Namkung, J., Kim, H., Park, S., 2015. Peripheral Serotonin: a New Player in Systemic Energy Homeostasis. *Mol. Cells* 38: 1023–1028. doi:10.14348/molcells.2015.0258

Nandam, L.S., Brazel, M., Zhou, M., Jhaveri, D.J., 2020. Cortisol and Major Depressive Disorder—Translating Findings From Humans to Animal Models and Back. *Front. Psychiatry* 10. doi:10.3389/fpsyg.2019.00974

Nazzari, S., Molteni, M., Valtorta, F., Comai, S., Frigerio, A., 2020. Prenatal IL-6 levels and activation of the tryptophan to kynurenone pathway are associated with depressive but not anxiety symptoms across the perinatal and the post-partum period in a low-risk sample. *Brain. Behav. Immun.* 89: 175–183. doi:10.1016/j.bbi.2020.06.015

Nitz, K., Lacy, M., Atzler, D., 2019. Amino acids and their metabolism in atherosclerosis. *Arterioscler. Thromb. Vasc. Biol.* 39: 319–330. doi:10.1161/ATVBAHA.118.311572

Noushad, S., Ahmed, S., Ansari, B., Mustafa, U.-H., Saleem, Y., Hazrat, H., 2021. Physiological biomarkers of chronic stress: A systematic review. *Int. J. Health Sci. (Qassim)*. 15: 46–59.

Ortiz, R., Kluwe, B., Odei, J.B., Echouffo Tcheugui, J.B., Sims, M., Kalyani, R.R., Bertoni, A.G., Golden, S.H., Joseph, J.J., 2019. The association of morning serum cortisol with glucose metabolism and diabetes: The Jackson Heart Study. *Psychoneuroendocrinology* 103: 25–32. doi:10.1016/j.psyneuen.2018.12.237

Pulopulos, M.M., Salvador, A., Hidalgo, V., Puig-Perez, S., Montoliu, T., 2020. Relationship between cortisol changes during the night and subjective and objective sleep quality in healthy older people. *Int. J. Environ. Res. Public Health* 17. doi:10.3390/ijerph17041264

Rabasa, C., Dickson, S.L., 2016. Impact of stress on metabolism and energy balance. *Curr. Opin. Behav. Sci.* 9: 71–77. doi:10.1016/j.cobeha.2016.01.011

Rabiei, Z., Jahanbazi, S., Alibabaei, Z., 2018. Antidepressant Effects of Oleuropein in Male Mice by Forced Swim Test and Tail Suspension Test. *World Fam. Med. Journal/Middle East J. Fam. Med.* 16: 132–144. doi:10.5742/MEWM.2018.93366

Reyhanditya, D., Hikmawati, V.F., Kurnianingsih, N., Fatchiyah, F., 2022. Restraint Stress Impacts on Behavioral Changes and Adrenal and Kidney Tissue Histopathology of Adult Mice. *J. Kedekt. Brawijaya* 32: 1–7. doi:10.21776/ub.jkb.2022.032.01.1

Rezende, R.M., Pelúzio, M. do C.G., de Jesus Silva, F., Lucia, E.M. Della, Favarato, L.S.C., Martino, H.S.D., Natali, A.J., 2019. Does aerobic exercise associated with tryptophan



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN

TRIGLISERIDA DARAH

PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS

YANASTA YUDO PRATAMA, dr. Andreanyta Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

supplementation attenuates hyperalgesia and inflammation in female rats with experimental fibromyalgia? *PLoS One* 14. doi:10.1371/journal.pone.0211824

Rohleder, N., 2019. Stress and inflammation – The need to address the gap in the transition between acute and chronic stress effects. *Psychoneuroendocrinology*. doi:10.1016/j.psyneuen.2019.02.021

Russell, G., Lightman, S., 2019. The human stress response. *Nat. Rev. Endocrinol.* doi:10.1038/s41574-019-0228-0

Samad, N., Muneer, A., Ullah, N., Zaman, A., Ayaz, M.M., Ahmad, I., 2017. Banana fruit pulp and peel involved in antianxiety and antidepressant effects while invigorate memory performance in male mice: Possible role of potential antioxidants. *Pak. J. Pharm. Sci.* 30: 989–995.

Samaras, A., Dimitroglou, A., Kollias, S., Skouradakis, G., Papadakis, I.E., Pavlidis, M., 2021. Cortisol concentration in scales is a valid indicator for the assessment of chronic stress in European sea bass, *Dicentrarchus labrax* L. *Aquaculture* 545: 737257. doi:10.1016/j.aquaculture.2021.737257

Sandrini, L., Ieraci, A., Amadio, P., Zarà, M., Barbieri, S.S., 2020. Impact of acute and chronic stress on thrombosis in healthy individuals and cardiovascular disease patients. *Int. J. Mol. Sci.* doi:10.3390/ijms21217818

Sarjan, H.N., Yajurvedi, H.N., 2018. Chronic stress induced duration dependent alterations in immune system and their reversibility in rats. *Immunol. Lett.* 197: 31–43. doi:10.1016/j.imlet.2018.02.008

Scholl, J.L., Afzal, A., Fox, L.C., Watt, M.J., Forster, G.L., 2019. Sex differences in anxiety-like behaviors in rats. *Physiol. Behav.* 211: 112670. doi:10.1016/j.physbeh.2019.112670

Sequeira-Cordero, A., Salas-Bastos, A., Fornaguera, J., Brenes, J.C., 2019. Behavioural characterisation of chronic unpredictable stress based on ethologically relevant paradigms in rats. *Sci. Rep.* 9: 1–21. doi:10.1038/s41598-019-53624-1

Sha, Q., Madaj, Z., Keaton, S., Escobar Galvis, M.L., Smart, L.A., Krzyzanowski, S., Fazleabas, A.T., Leach, R., Postolache, T.T., Achtyes, E.D., Brundin, L., 2022. Cytokines and tryptophan metabolites can predict depressive symptoms in pregnancy. *Transl. Psychiatry* 12. doi:10.1038/s41398-022-01801-8

Sheline, Y.I., Liston, C., McEwen, B.S., 2019. Parsing the Hippocampus in Depression: Chronic Stress, Hippocampal Volume, and Major Depressive Disorder. *Biol. Psychiatry* 85: 436–438. doi:10.1016/j.biopsych.2019.01.011

Shipelin, V.A., Trusov, N. V., Apryatin, S.A., Shumakova, A.A., Balakina, A.S., Riger, N.A., Gmoshinski, I. V., Nikityuk, D.B., 2021. Effects of tyrosine and tryptophan in rats with diet-induced obesity. *Int. J. Mol. Sci.* 22: 1–16. doi:10.3390/ijms22052429

Siddiqui, A., Desai, N.G., Sharma, S.B., Aslam, M., Sinha, U.K., Madhu, S. V., 2019. Association of oxidative stress and inflammatory markers with chronic stress in patients with newly diagnosed type 2 diabetes. *Diabetes. Metab. Res. Rev.* 35. doi:10.1002/dmrr.3147



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN TRIGLISERIDA DARAH  
PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS  
YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ  
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

- Simas, B.B., Nunes, E.A., Crestani, C.C., Speretta, G.F., 2018. Cardiovascular and metabolic consequences of the association between chronic stress and high-fat diet in rats. *Stress* 21: 247–256. doi:10.1080/10253890.2018.1437413
- Soares, N.M., Pereira, G.M., Altmann, V., de Almeida, R.M.M., Rieder, C.R.M., 2019. Cortisol levels, motor, cognitive and behavioral symptoms in Parkinson's disease: a systematic review. *J. Neural Transm.* doi:10.1007/s00702-018-1947-4
- Sohn, J.-W., Elmquist, J.K., Williams, K.W., 2013. Neuronal circuits that regulate feeding behavior and metabolism. *Trends Neurosci.* 36: 504–512. doi:10.1016/j.tins.2013.05.003
- Starr, L.R., Dienes, K., Li, Y.I., Shaw, Z.A., 2019. Chronic stress exposure, diurnal cortisol slope, and implications for mood and fatigue: Moderation by multilocus HPA-Axis genetic variation. *Psychoneuroendocrinology* 100: 156–163. doi:10.1016/j.psyneuen.2018.10.003
- Stefanaki, C., Pervanidou, P., Boschiero, D., Chrousos, G.P., 2018. Chronic stress and body composition disorders: implications for health and disease. *Hormones*. doi:10.1007/s42000-018-0023-7
- Steinberg, L.J., Rubin-Falcone, H., Galfalvy, H.C., Kaufman, J., Miller, J.M., Sublette, M.E., Cooper, T.B., Min, E., Keilp, J.G., Stanley, B.H., Oquendo, M.A., Ogden, R.T., Mann, J.J., 2019. Cortisol Stress Response and in Vivo PET Imaging of Human Brain Serotonin 1A Receptor Binding. *Int. J. Neuropsychopharmacol.* 22: 329–338. doi:10.1093/ijnp/pyz009
- Stukalin, Y., Lan, A., Einat, H., 2020. Revisiting the validity of the mouse tail suspension test: Systematic review and meta-analysis of the effects of prototypic antidepressants. *Neurosci. Biobehav. Rev.* 112: 39–47. doi:10.1016/j.neubiorev.2020.01.034
- Sugama, S., Kakinuma, Y., 2020. Stress and brain immunity: Microglial homeostasis through hypothalamus-pituitary-adrenal gland axis and sympathetic nervous system. *Brain, Behav. Immun. - Heal.* 7: 100111. doi:10.1016/j.bbih.2020.100111
- Sukmawati, S., Wati, A., Meilinda, M., 2021. Uji Efektivitas Ekstrak Etanol Kulit Pisang Mas (*Musa acuminata Colla*) Terhadap Penurunan Kadar Kolesterol Tikus (*Rattus norvegicus*) Hiperlipidemia. *J. Ilm. As-Syifaa* 12: 131–135. doi:10.33096/jifa.v12i2.645
- Tang, M., Floyd, S., Cai, H., Zhang, M., Yang, R., Dang, R., 2019. The status of ω-3 PUFAs influence chronic unpredicted mild stress-induced metabolic side effects in rats through INSIG/SREBP pathway. *Food Funct.* 10: 4649–4660. doi:10.1039/C9FO00076C
- Tayyab, M., Farheen, S., M, M.M.P., Khanam, N., Mobarak Hossain, M., Shahi, M.H., 2019. Antidepressant and Neuroprotective Effects of Naringenin via Sonic Hedgehog-GLI1 Cell Signaling Pathway in a Rat Model of Chronic Unpredictable Mild Stress. *NeuroMolecular Med.* 21: 250–261. doi:10.1007/s12017-019-08538-6
- Tee, T.P., Hassan, H., 2011. Antidepressant-Like Activity of Banana Peel Extract in Mice. *Am. Med. J.* 2: 59–64. doi:10.3844/amjsp.2011.59.64
- Teklić, T., Parađiković, N., Špoljarević, M., Zeljković, S., Lončarić, Z., Lisjak, M., 2021. Linking abiotic stress, plant metabolites, biostimulants and functional food. *Ann. Appl. Biol.* doi:10.1111/aab.12651



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN TRIGLISERIDA DARAH  
PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS  
YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ  
Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

Tsado, A.N., Okoli, N.R., Jiya, A.G., Gana, D., Saidu, B., Zubairu, R., Salihu, I.Z., 2021. Proximate, Minerals, and Amino Acid Compositions of Banana and Plantain Peels, BIOMED Natural and Applied Science.

Tsang, C., Hodgson, L., Bussu, A., Farhat, G., Al-Dujaili, E., 2019. Effect of polyphenol-rich dark chocolate on salivary cortisol and mood in adults. *Antioxidants* 8. doi:10.3390/antiox8060149

Unal, G., Canbeyli, R., 2019. Psychomotor retardation in depression: A critical measure of the forced swim test. *Behav. Brain Res.* 372: 112047. doi:10.1016/j.bbr.2019.112047

Vega-Beyhart, A., Iruarrizaga, M., Pané, A., García-Eguren, G., Giró, O., Boswell, L., Aranda, G., Flores, V., Casals, G., Alonso, C., Mora, M., Halperin, I., Carmona, F., Enseñat, J., Vidal, O., Hu, T., Rojo, G., Gomis, R., Hanzu, F.A., 2021. Endogenous cortisol excess confers a unique lipid signature and metabolic network. *J. Mol. Med.* 99: 1085–1099. doi:10.1007/s00109-021-02076-0

Veličković, N., Teofilović, A., Ilić, D., Djordjević, A., Vojnović Milutinović, D., Petrović, S., Preitner, F., Tappy, L., Matić, G., 2019. Modulation of hepatic inflammation and energy-sensing pathways in the rat liver by high-fructose diet and chronic stress. *Eur. J. Nutr.* 58: 1829–1845. doi:10.1007/s00394-018-1730-1

Wang, L.-S., Zhang, M.-D., Tao, X., Zhou, Y.-F., Liu, X.-M., Pan, R.-L., Liao, Y.-H., Chang, Q., 2019. LC-MS/MS-based quantification of tryptophan metabolites and neurotransmitters in the serum and brain of mice. *J. Chromatogr. B* 1112: 24–32. doi:10.1016/j.jchromb.2019.02.021

Wang, W., Liu, L., Tian, Z., Han, T., Sun, C., Li, Y., 2021. Dietary Tryptophan and the Risk of Metabolic Syndrome: Total Effect and Mediation Effect of Sleep Duration. *Nat. Sci. Sleep* Volume 13: 2141–2151. doi:10.2147/NSS.S337171

Wheelock, M.D., Rangaprakash, D., Harnett, N.G., Wood, K.H., Orem, T.R., Mrug, S., Granger, D.A., Deshpande, G., Knight, D.C., 2018. Psychosocial stress reactivity is associated with decreased whole-brain network efficiency and increased amygdala centrality. *Behav. Neurosci.* 132: 561–572. doi:10.1037/bne0000276

Willner, P., 2017. The chronic mild stress (CMS) model of depression: History, evaluation and usage. *Neurobiol. Stress* 6: 78–93. doi:10.1016/j.ynstr.2016.08.002

Won, E., Kim, Y.-K., 2016. Stress, the Autonomic Nervous System, and the Immune-kynurenone Pathway in the Etiology of Depression. *Curr. Neuropharmacol.* 14: 665–673. doi:10.2174/1570159X14666151208113

Yang, H., Li, W., Meng, P., Liu, Z., Liu, J., Wang, Y., 2018. Chronic Unpredictable Mild Stress Aggravates Mood Disorder, Cognitive Impairment, and Brain Insulin Resistance in Diabetic Rat. *Evidence-Based Complement. Altern. Med.* 2018: 1–9. doi:10.1155/2018/2901863

Yaribeygi, H., Panahi, Y., Sahraei, H., Johnston, T.P., Sahebkar, A., 2017. The impact of stress on body function: A review. *EXCLI J.* doi:10.17179/excli2017-480

Zulkifli, B., Akmal, M., Wahyuni, S., Siregar, T.N., Gholib, G., 2020. Identification of Active Compounds of Kepok Banana Peel and the Effect on Testosterone Concentration in Male Rats with High-Fat Diet, in: E3S Web of Conferences. EDP Sciences.



UNIVERSITAS  
GADJAH MADA

PENGARUH ABON KULIT PISANG (MUSA BALBISIANA COLLA) TERHADAP KADAR KORTISOL DAN TRIGLISERIDA DARAH

**PADA TIKUS WISTAR YANG DIINDUKSI STRES KRONIS**

YANASTA YUDO PRATAMA, dr. Andreanya Meliala, Ph.D; dr. Irwan Supriyanto, Ph.D., Sp.KJ

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

doi:10.1051/e3sconf/202015101026

Zurawek, D., Gruca, P., Antkiewicz-Michaluk, L., Dziedzicka-Wasylewska, M., 2019. Resilient Phenotype in Chronic Mild Stress Paradigm Is Associated with Altered Expression Levels of miR-18a-5p and Serotonin 5-HT1a Receptor in Dorsal Part of the Hippocampus. *Mol. Neurobiol.* 56: 7680–7693. doi:10.1007/s12035-019-1622-2