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DAFTAR PUSTAKA

Aguilera, N., Becerra, J., Villaseñor-Parada, C., Lorenzo, P., González, L., Hernández, V., 2015, Effects and Identification of Chemical Compounds Released from the Invasive *Acacia dealbata* Link, *Chemistry and Ecology*.

Ahmed, A., Bakar, M. S. A., Azad, A. K., Sukri, R. S., Phusunti, N., 2018, Intermediate Pyrolisis of *Acacia cincinnata* and *Acacia holosericiea* Species for Bio-oil and Biochar Production, *Energy Conversion and Management* **176**: 393-408.

Al-Essa, M. A., Chaves-Carballo, E., Ozand, P. T., 1999, Hyperpipecolic Acidemia: Clinical, Biochemical, and Radiologic Observations, *Pediatric Neurology* **21** (5): 826-829.

Aldred, J., Nutt, J. G., 2010, Levodopa dalam *Encyclopedia of Movement Disorders*, Academic Press.

Andretic, R., van Swinderen, B., Greenspan, R. J., 2005, Dopaminergic Modulation of Arousal in Drosophila. *Curr Biol* **15**: 1165–1175.

Aniszewski, T., 2015, Biology of Alkaloids dalam Alkaloids 2nd Ed., Elsevier.

Anwar, S., Mohammad, T., Shamsi, A., Queen, A., Parveen, S., Luqman, S., Hasan, G. M., Alamry, K. A., Azum, N., Asiri, A. M., Hassan, M. I., 2020, Discovery of Hordenine as A Potential Inhibitor of Pyruvate Dehydrogenase Kinase 3: Implication in Lung Cancer Therapy. *Biomedicines* **8** (119).

Arena, C., Gado, F., Mannelli, L. D. C., Cervetto, C., Carpi, S., Reynoso-Moreno, I., Polini, B., Vallini, E., Chicca, S., Lucarini, E., Bertini, S., D'Andrea, F., Digiacomo, M., Poli, G., Tuccinardi, T., Macchia, M., Gertsch, J., Marcoli, M., Nieri, P., Ghelardini, C., Chicca, A., Manera, C., 2020, The Endocannabinoid System Dual-Target Ligand N-cycloheptyl-1,2-dihydro-5-bromo-1-(4-flurobenzyl)-6-methyl-2-oxo-pyridine-3-carboxamide Improves Disease Severity in A Mouse Model of Multiple Sclerosis, *EJ. of Medicinal Chemistry* **208**.

Aronson, J. K. (Editor), 2016, Tryptophan dalam *Meyler's Side Effects of Drugs* 16th Ed., Elsevier, UK.

Bai, R., Yao, C., Zhong, Z., Ge, J., Bai, Z., Ye, X., Xie, T., & Xie, Y., 2021, Discovery of natural anti-inflammatory alkaloids: Potential leads for the drug discovery for the treatment of inflammation, *EJ. of Medicinal Chemistry* **213**.

UNIVERSITAS
GADJAH MADA
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QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Balandrin, M. F., Kinghorn, A. D., Smolenski, S. J., Dobberstein, R. H., 1978, Reversed-Phase High-Pressure Liquid Chromatography of Some Tryptamine Derivatives, *J. of Chromatography* **157**: 365-370.

Baltazar, C. J., Mun, R., Tajmir-Riahi, H. A., Bariyanga, J., 2018, Spectroscopic Studies on the Interaction of Mimosine with BSA and DNA, *J. of Molecular Structure* **1161**: 273-278.

Beri, D., Ramdani, G., Balan, B., Gadara, D., Poojary, M., Momeux, L., Tatu, U., Langsley, G., 2019, Insights into Physiological Roles of Unique Metabolites Released from *Plasmodium*-Infected RBCs and Their Potential as Clinical Biomarkers for Malaria, *Sci Rep.* **9**.

Berry, M. D., 2004, Mammalian Central Nervous System Trace Amines. Pharmacologic Amphetamines, Physiologic Neuromodulators, *J. of Neurochemistry* **20**: 257-271.

Beyer, J., Drummer, O. H., Maurer, H. H., 2009, Analysis of Toxic Alkaloids in Body Samples, *Forensic Science International* **185**: 1-9.

Böttger, A., Vothknecht, U., Bolle, C., & Wolf, A., 2018, *Lessons on Caffeine, Cannabis & Co. Learning Materials in Biosciences: Plant Secondary Metabolites and Their General Function in Plants*, Springer, Cham.

Chang, H., Lee, T., Chuang, L., Yen, M., Hung, W., 1999, Inhibitory Effect of Mimosine on Proliferation of Human Lung Cancer Cells is Mediated by Multiple Mechanisms, *Cancer Letters* **145**: 1-8.

Christenheusz, M.J.M. & Byng, J.W., 2016, The number of known plants species and its annual increase, *Phytotaxa* **261** (3): 201-217.

Clement, B. A., Goff, C. M., Forbest, D. A., 1997, Toxic Amines and Alkaloids from *Acacia berliandieri*, *J. Phytochemistry* **46** (2): 349-254.

Clement, B. A., Goff, C. M., Forbest, D. A., 1998, Toxic Amines and Alkaloids from *Acacia rigidula*. *J. Phytochemistry* **49** (5): 1377-1380.

Cohen, P. A., Zeijlon, R., Nardin, R., Keizers, P. H. J., Venhuis, B., 2015, Hemorrhagic Stroke Probably Caused by Exercise Combined With a Sports Supplement Containing β-Methylphenyl-ethylamine (BMPEA): A Case Report, *Annals of Internal Medicine* **162** (12): 879-880.

Cortés, M., Garbarino, J. A., Cassels, B. K., 1972, Isolation of Candicine from *Trichocereus chilensis*, *Phytochemical Reports* **11**: 849-850.

Costa, M. R., Glória, M. B. A., 2003, *Migraine and Diet* dalam Trugo, L., Finglas, P. M. (Eds), 2003, *Encyclopedia of Food Sciences and Nutrition* 2nd Ed, Academic Press, USA.

UNIVERSITAS
GADJAH MADA
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QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Crespo, Y. A., Naranjo, R. A., Quitana, Y. G., Sanchez, C. G., Sanchez, E. M. S., 2017, Optimisation and Characterisation of Bio-Oil Produced by *Acacia mangium* Willd Wood Pyrolysis, *Wood Sci Technol* **51**: 1155-1171.

Cunningham, N., 2008, Hallucinogenic Plants of Abuse. *Emerg Med Australas* **20** (2):167–174.

Deguchi, T., Urakawa, N., Hayama, T., Ohkubo, Y., 1963, Ganglion Stimulating Action of Candicine, *Jap. J. Pharmacol.* **13**: 143-159.

Downie, J.A., 2014, Legume Nodulation, *Mag. Current Biology* **24** (5): 184-190.

El-Garawani, I., El-Nabi, S. H., Kattan, A. E., Sallam, A., Elballat, S., Abou-Ghanima, S., Azab, I. H. E., El-Seedi, H. R., Khalifa, S. A. M., El-Shamy, S., 2021, The Ameliorative Role of Acacia senegal Gum against the Oxidative Stress and Genotoxicity Induced by the Radiographic Contrast Medium (Ioxitalamate) in Albino Rats, *Antioxidants* **10**: 221.

Erspamer, V., Cei, J. M., Roseghini, M., 1963, Occurrence of Candicine (p-Hydroxyphenylethyltrimethylammonium) in Extracts of The Skin of *Leptodactylus pentadactylus pentadactylus*, *Life Sciences* **11**: 825-827.

Evans, C. S., Bell, E. A., Johnson, E. S., 1979, N-methyltyramine, A Biologically Active Amine in *Acacia* Seeds, *Phytochemistry* **18** (12): 2022-2023.

Evans, W. C., Evans, D., & Trease, G. E., 2002, *Trease and Evans' Pharmacognosy* 15th Ed., WB Saunders, Edinburgh, New York.

Feldman, J. M., 2004, Serotonin dalam *Encyclopedia of Gastroenterology*, Academic Press.

Finberg, P. J. M., Gillman, K., 2011, Selective Inhibitors of Monoamine Oxidase Type B and the "Cheese Effect", *International Review of Neurobiology* **100**: 169-190.

Furtado, C. M., Stolz, A. S., Pinto, F. L., Moura, A. B. D., Morisso, F. D. P., Pitarelo, A. P., Ramos, L. P., Mühlen, C., Riegel-Vidotti, I. C., 2015, Pyroligneous Liquor Produced from *Acacia mearnsii* de Wild Wood Under Controlled Conditions as A Renewable Source of Chemicals, *Quim. Nova* **38** (8): 1068-1074.

Frydrych, J., Keough, D. T., Chavchich, M., Travis, J., Dracinsky, M., Edstein, M. D., Guddat, L. W., Hocková, D., Janeba, Z., 2021, Nucleotide Analogues Containing A Pyrrolidine, Piperidine or Piperazine Ring: Synthesis and Evaluation of Inhibition of Plasmodial and Human 6-Oxopurine Phosphoribosyltransferases and *in vitro* Antimalarial Activity, *European J. of Medicinal Chemistry* **219**.

UNIVERSITAS
GADJAH MADA
Narrative Review: Alkaloid dalam Genus Acacia Spp. dan Aktivitas Biologinya
QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Gatasheh, M. K., Kannan, S., Hemalatha, K., Imrana, N., 2017, Proflavine An Acridine DNA Intercalating Agent and Strong Antimicrobial Possessing Potential Properties of Carcinogen, *Karbala IJ. of Modern Science* **3**: 272-278.

Ghansah, E., Kopsombut, P., Maleque, M. A., Brossi, A., 1993, Effects of Mescaline and Some of Its Analogs on Cholinergic Neuromuscular Transmission, *Neuropharmacology* **32** (2): 169-174.

Glimn-Lacy, J. & Kaufman, P.B., 2006, *Botanical Illustrated: Introduction to Plants, Major Groups, Flowering Plants Family* 2nd Ed., Springer, USA.

Gong, X., Tao, J., Wang, Y., Wu, J., An, J., Meng, J., Wang, X., Chen, Y., Zou, J., 2021, Total Barley Maiya Alkaloids Inhibit Prolactin Secretion by Acting on Dopamine D2 Receptor and Protein Kinase A Targets, *J. of Ethnopharmacology* **273**.

Grossman, G. H., Mistlberger, R. E., Antle, M. C., 2000, Sleep Deprivation Stimulates Serotonin Release in the Suprachiasmatic Nucleus, *Neuroreport* **11**: 1929–1932.

Hedge, M., Palanisamy, K., & Yi, J.S., 2013, *Acacia mangium* Willd. – A Fast Growing Tree for Tropical Plantation, *J. of Forest Science*.

Hendrati, R.L., Nurrohmah, S.H., Susilawati, S., & Budi, S., 2014, *Budidaya* Acacia auriculiformis *untuk Kayu Energi*, IPB Press, Jakarta.

Hinko, C. N., Crider, A. M., Kliem, M. A., Steinmiller, C. L., Seo, T. H., Ho, B., Venkatarangan, P., El-Assadi, A. A., Chang, H., Burns, C. M., Tietz, E. I., Andersen, P. H., Klitgaard, H., 1996, Anticonvulsant Activity of Novel Derivatives of 2- And 3-Piperidinecarboxylic Acid in Mice and Rats, *Neuropharmacology* **35** (12): 1721-1735.

Höglund, E., øverli, ø., Winberg, S., 2019, Tryptophan Metabolic Pathways and Brain Serotonergic Activity: A Comparative Review, *Frontiers in Endocrinology* **10** (158).

Hussain, L. S., Reddy, V., Maani, C. V., 2021, Physiology, Noradrenergic Synapse, StatPearls (Diakses melalui https://www.ncbi.nlm.nih.gov/books/NBK540977/).

Ince, T., Serttas, R., Demir, B., Atabey, H., Seferoglu, N., Erdogan, S., Sahin, E., Erat, S., Nural, Y., 2020, Polysubstituted Pyrrolidines Linked to 1,2,3-Triazoles: Synthesis, Crystal Structure, DFT Studies, Acid Dissociation Constant, Drug-Likeness, and Anti-Proliferative Activity, *J. of Molecular Structure*.

Irsfeld, M., Spadafore, M., Prüß, B. M., 2014, β-Phenetylamine, A Small Molecule with A Large Impact, *Webmedcentral*, **4** (9): 4409.

UNIVERSITAS
GADJAH MADA
Narrative Review: Alkaloid dalam Genus Acacia Spp. dan Aktivitas Biologinya
QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Jhaveri, N., Cho, H., Torres, S., Wang, W., Schönthal, A. H., Petasis, N. A., Louie, S. G., Hofman, F. M., Chen, T. C., 2011, Noscapine Inhibits Tumor Growth in TMZ-resistant Gliomas, *Cancer Letters* **312** (2): 245-252.

Kawada, H., Inanobe, A., Kurachi, Y., 2016, Isolation of Proflavine as A Blocker of G Protein-gated Inward Rectifier Potassium Channels by A Cell Growth-based Screening System, *Neuropharmacology* **109**: 18-28.

Kim, E. I., Min, S. Y., Jin, H. K., Ki, T. H., Myung, W. O., Lee, K., 2003, Reduction of Serotonin Content by Tetrahydropapaveroline in Murine Mastocytoma P815 Cells, *Neuroscience Letters* **339** (2): 131-134.

Kim, Y. M., Kim, M. N., Lee, J. J., Lee, M. K., 2005, Inhibition of Dopamine Biosynthesis by Tetrahydropapaveroline, *Neuroscience Letters* **386** (1): 1-4.

Klein, M. O., Battagello, D. S., Cardoso, A. R., Hauser, D. N., Bittencourt, J. C., Correa, R. G., 2019, Dopamine: Functions, Signaling, and Association with Neurological Diseases, *Cellular and Molecular Neurobiology* **39**: 31-59.

Kohleimer, M., 2003, Tyrosine, dalam Kohleimer, M., 2003, *Nutrient Metabolism*, Academic Press, UK.

Kolb, S., Goddard, M., Loukaci, A., Mondésert, O., Ducommun, B., Braud, E., Garbay, C., 2010, 5-Substituted [1]pyrindine Derivatives with Antiproliferative Activity, *EJ. Of Medicinal Chemistry*, **45**: 896-901.

Könczöl, A., Rendes, K., Dékány, M., Müller, J., Riethmüller, E., Balogh, G. T., 2016, Blood-Brain Barrier Specific Permeability Assay Reveals *N*-Methylated Tyramine Derivatives in Standardised Leaf Extracts and Herbal Products of *Ginkgo biloba*, *J. of Pharmaceutical and Biomedical Analysis* **131**: 167-174.

Kousara, S., Anjuma, S. N., Jaleela, F., Khana, J., Naseema, S., 2017, Biomedical Significance of Tryptamine: A Review, *J. of Pharmacovigilance* **5** (5).

Kumari, R., Mishra, R. C., Sheoran, R., Yadav, J. P., 2020, Fractionation of Antimicrobial Compounds from *Acacia nilotica* Twig Extract Against Oral Pathogens, *Biointerface Research in Applied Chemistry* **10** (6): 7097-7105.

Kunii, Y., Otsuka, M., Kashino, S., Takeuchi, H., Ohmori, S., 1996, 4-Hydroxypipecolic Acid and Pipecolic Acid in *Acacia* Species: Their Determination by High-Performance Liquid Chromatography, Its Application to Leguminous Plants, and Configuration of 4-Hydroxypipecolic Acid, *J. Agric. Food Chem.* **44**: 483-487.

Kyoto Encyclopedia of Genes and Genomes (KEGG), 2019, Phenylalanine Metabolism (diakses melalui: genome.jp/pathway/ko00360+K01593).

UNIVERSITAS
GADJAH MADA
Narrative Review: Alkaloid dalam Genus Acacia Spp. dan Aktivitas Biologinya
QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Lee, Y., Kim, H. R., Lee, C. Y., Hyun, S., Ko, M. Y., Lee, B., Hwang, D. Y., Ka, M., 2020, 2-Phenylethylamine (PEA) Ameliorates Corticosterone-Induced Depression-Like Phenotype via the BDNF/TrkB/CREB Signaling Pathway, *IJ of Molecular Sciences* **21.**

Lewis, G.P., 2005, Tribe: *Acaciae*, dalam Lewis, G.P., Schrire, B., Mackinder, B., Lock, M. (Eds.), 2005, *Legumes of The World*, Royal Botanic Gardens, Kew.

Li, L., Wang, A., Wang, B., Liu, M., Lv, K., Tao, Z., Ma, C., Ma, X., Han, B., Wang, A., Lu, Y., 2020, *N*-(2-Phenoxy)ethyl Imidazol[1,2-α]pyridine-3-carboxamides Containing Various Amine Moieties: Design, Synthesis and Antitubercular Activity, *Chinese Chemical Letters* **31**: 409-412.

Lichman, B.R. 2021. The Scaffold-Forming Steps of Plant Alkaloid Biosynthesis. *J. Natural Product Reports* **1**.

Lin, H., Chang, T., & Chang, S., 2018, A Review of Antioxidant and Pharmacological Properties of Phenolic Compounds in *Acacia confusa*, *J. of Traditional and Complementary Medicine* **9**: 443-450.

Lin, R. C., Peyroux, J., Seguin, E., Koch, M., 1991, Hypertensive Effect of Glycosidic Derivatives of Hordenine Isolated from *Selaginella doederleinii* Hieron and Structuran Analogues in Rats, *Phytotherapy Research* **5**: 188-190.

Lin, S. X., Curtis, M. A., Sperry, J., 2020, Pyridine Alkaloids with Activity in the Central Nervous System, *Bioorg. Med. Chem.* **28**.

Lu, X., Tang, J., Cui, S., Wan, B., Franzblauc, S. G., Zhang, T., Zhang, X., Ding, K., 2017, Pyrazolo[1,5-a]pyridine-3-carboxamide Hybrids: Design, Synthesis and Evaluation of Anti-tubercular Activity, *EJ. of Medicinal Chemistry* **125**: 41-48.

Luciana, M., Collins, P. F., Depue, R. A., 1998, Opposing Roles for Dopamine and Serotonin in the Modulation of Human Spatial Working Memory Functions. *Cereb Cortex* **8**: 218–226.

Martinez-Gualda, B., Pu, S., Froeyen, M., Herdewijn, P., Einav, S., Jonghe, S. D., 2020, Structure-Activity Relationship Study of the Pyridine Moierty of Isothiazolo[4,3-b]pyridines as Antiviral Agents Targeting Cyclin G-associated Kinase, *Bioorganic & Medicinal Chemistry*, **28**.

Martínez-Mir, I., Palop, V., Morales-Olivas, F. J., Estañ, L., Rubio, E., 1998, The Effects of Epinine on Arterial Blood Pressure and Regional Vascular Resistances in Anesthesized Rats, *Gen. Pharmac.* **31** (1): 75-79.

UNIVERSITAS
GADJAH MADA
Narrative Review: Alkaloid dalam Genus Acacia Spp. dan Aktivitas Biologinya
QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Maslin, B.R., Orchard, A.E., & West, J.G., 2003, Nomenclatural and Classification History of *Acacia* (Leguminosae: Mimosoideae), and The Implification of Generic Subdivision, *WorldWideWattle*.

McMurry, J.E., 2015, *Organic Chemistry with Biological Applications* 3rd Ed., Cengage Learning, Stamford, USA.

McKenna, D. J., 2004, Clinical Investigations of the Therapeutic Potential of Ayahuasca: Rationale and Regulatory Challenges. *Pharmacol Ther* **102** (2):111–129

Meenambiga, S. S., Rajagopal, K., 2018, Antibiofilm Activity and Molecular Docking Studies of Bioactive Secondary Metabolites from Endophytic Fungus *Aspergillus nidulans* on Oral *Candida albicans*, *J. of Applied Pharmaceutical Science* **8** (3): 37-45.

Mercader, J., Wanecq, E., Chen, J., Carpéné, C., 2011, Isopropylnorsynephrine is A Stronger Lipolytic Agent in Human Adipocytes Then Synephrine and Other Amines Present in *Citrus aurantium*, *J. Physiol Biochem* **67**(3): 443-452.

Mitchell, W. L., Giblin, G. M. P., Naylor, A., Eatherton, A. J., Slingsby, B. P., Rawlings, A. D., Jandu, K. S., Haslam, C. P., Brown, A. J., Goldsmith, P., Clayton, N. M., Wilson, A. W., Chessell, I. P., Green, R. H., Whittington, A. R., Wall, I. D., 2009, Pyridine-3-carboxamides as Novel CB_2 Agonists for Analgesia, *Bioorganic & Medicinal Chemistry Letters* **19:** 259-263.

Mosnaim, A. D. & Wolf, M. E., 2017, β-Phenethylamine-Class Trace Amines in Neuropsychiatric Disorders dalam Trace Amines and Neurological Disorders, Academic Press.

Narasimhamurthy, K. H., Guruswamy, D. K. M., Chandra, Kallesha, N., Basappa, Rangappa, K. S., 2021, Synthesis of Bioactive Quinoline Acting as Anticancer Agents and their Mode of Action Using In Silico Analysis towards Aurora Kinase A Inhibitors, *Chemical Data Collections* **35**.

Naresh, G., Jaiswal, N., Sukanya, P., Srivastava, A. K., Tamrakar, A. K., Narender, T., 2012, Glucose Uptake Stimulatory Effect of 4-Hydroxypipecolic Acid by Increased GLUT 4 Translocation in Skeletal Muscle Cells, *Bioorganic & Medicinal Chemistry Letters* **22**: 5648-5651.

Newcomb, E. W., Lukyanov, Y., Schnee, T., Ali, M. A., Lan, L., Zagzag, D., 2006, Noscapine Inhibits Hypoxia-mediated HIF-1·Expression and Angiogenesis *in vitro*: A Novel Function for an Old Drug, *IJ of Oncology* **28**: 1121-1130.

Newcomb, E. W., Lukyanov, Y., Alonso-Basanta, M., Esencay, M., Smirnova, I., Schnee, T., Shao, Y., Devitt, M. L., Zagzag, D., McBride, W., Formenti, S.

UNIVERSITAS
GADJAH MADA
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QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

C., 2008, Antiangiogenic Effects of Noscapine Enhance Radioresponse for GL261 Tumors, *IJ. of Radiation Oncology Biology Physics* **71** (5): 1477-1484.

Nichols, C. D., Sanders-Bush, E., 2003, Serotonin dalam *Encyclopedia of the Neurological Sciences*, Academic Press.

Nichols, D. E., 2012, Structure-Activity Relationships of Serotonin 5-HT_{2A} Agonists, *WIREs Membrane Transport and Signaling* **1**.

Nikookar, H., Mohammadi-Khanaposhtani, M., Imanparast, S., Faramarzi, M. A., Ranibar, P. R., Mahdavi, M., Larijani, B., 2018, Design, Synthesis and In Vitro α-glucosidase Inhibition of Novel Dihydropyrano[3,2-c]quinoline Derivatives as Potential Anti-Diabetic Agents, *Bioorganic Chemistry* **77**: 280-286.

Olguín, H. J., Guzmán, D. C., García, E. H., Mejía, G. B., 2016, The Role of Dopamine and Its Dysfunction as a Consequence of Oxidative Stress, *Oxidative Medicine and Cellular Longevity*.

Ott, T., van Dongen, J. T., Günther, C., Krusell, L., Desbrosses, G., Vigeolas, H., Bock, V., Czechowski, T., Geigenberger, P., & Udvardi, M.K., 2005, Symbiotic Leghemoglobins are Crucial for Nitrogen Fixation in Legume Root Nodules but Not for General Plant Growth and Development, *Curr Biol*. **15**(6): 531-535.

Paley, E. L., 2021, *Protein Biosynthesis Interference in Disease*, Academic Press.

Park, A., Hwang, J., Lee, J., Heo, E. J., Na, Y., Kang, S., Jeong, K., Kim, K. Y., Shin, S. J., Lee, H., 2021, Synthesis of Novel 1*H*-Pyrazolo[3,4-b]pyridine Derivatives as DYRK 1A/1B Inhibitors, *Bioorg. Med. Chem. Lett.* **47**.

Paudel, B., Maharjan, R., Rajbhandari, P., Aryal, N., Aziz, S., Bhattarai, K., Baral, B., Malla, R., Bhattarai, H. D., 2021, Maculosin, a Non-Toxic Antioxidant Compound Isolated from *Streptomyces* sp. KTM18.

Paus, T., 2001, Primate Anterior Cingulate Cortex: Where Motor Control, Drive and Cognition Interface. *Nat Rev Neurosci* **2**: 417.

Pawar, R. S., Grundel, E., Fardin-Kia, A. R., Rader, J. I., 2014, Determination of Selected Biogenic Amines in *Acacia rigidula* Plant Materials and Dietary Supplements Using LC-MS/MS Methods. *J. of Pharmaceutical and Biomedical Analysis* **88**: 457-466.

Pemberton, I. J., Smith, G. R., Forbes, T. D. A., Hensarling, C. M., 1993, Technical Note: An Improved Method for Extraction and Quantification of Toxic Phenethylamines from *Acacia berlandieri, J. Anim. Sci.* **71**: 467-470.

UNIVERSITAS
GADJAH MADA
Narrative Review: Alkaloid dalam Genus Acacia Spp. dan Aktivitas Biologinya
QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Pluchino, L. A., Liu, A. K., Wang, H. R., 2015, Reactive Oxygen Species-Mediated Breast Cell Carcinogenesis Enhanced by Multiple Carcinogens and Intervened by Dietary Ergosterol and Mimosine, *Free Radic Biol Med* **80**: 12-26.

Potter, K., Rimbawanto, A., & Beadle, C., 2006, Heart Rot and Root Rot in Tropical *Acacia* Plantations. *Pros. ACIAR* **124**.

Pribadi, A. & Purnomo, 2013, Hutan Tanaman Industri Jenis *Acacia mangium* sebagai Sumber Pakan Lebah *Apis cerana*, *Pros. Semnas Perhimpunan Biologi Indonesia* **22**.

Priscilla, J., Dhas, D. A., Joe, H, I., Balachandran, S., 2021, Spectroscopic, Electron Localization Function, Chemical Reactivity and Antihypertensive Activity Study on Hordenine Alkaloid by Density Functional Theory Approach, *J. of Molecular Structure* **1229**.

Rapacz, A., Rybka, S., Obniska, J., Jodlowska, A., Góra, M., Koczurkiewicz, P., Pękala, E., Siwek, A., Filipek, B., 2020, Analgesic and Antiallodynic Activity of Novel Anticonvulsant Agents Derived from 3-Benzhydryl-pyrrolidine-2,5-dione in Mouse Models of Nociceptive and Neuropathic Pain, *EJ of Pharmacology* **869**.

Redegald F. A., Loveren, H. V., 1998, Serotonin dalam *Encyclopedia of Immunology* 2nd Ed., Academic Press.

Revathi, S., Govindarajan, R. K., Rameshkumar, N., Hakkim, F. L., Mohammed, A., Krishnan, M., Kayalvizhi, N., 2017, Anti-cancer, Anti-microbial and Anti-oxidant Properties of *Acacia nilotica* and Their Chemical Profiling, *Biocatalysis and Agricultural Biotechnology* **11**: 322-329.

Rickli, A., Hoener, M. C., Liechti, M. E., 2019, Pharmacological Profiles of Compounds in Preworkout Supplements ("Boosters"), *EJ of Pharmacology* **859**.

Robinson, T., 1981, *Molecular Biology Biochemistry and Biophysics* 2nd Ed. Springer-Verlag, New York.

Rutigliano, G., Accorroni, A., Zucchi, R., 2018, The Case for TAAR1 as A Modulator of Central Nervous System Function, *Front Pharmacology*.

Sabelli, H., Fink, P., Fawcett, J., Tom, C., 1996, Sustained Antidepressant Effect of PEA Replacement, *J. of Neuropsychiatry* **8** (2).

Sadiq, M. B., Hanpithakpong, W., Tarning, J., Anal, A. K., 2015, Screening of Phytochemicals and In Vitro Evaluation of Antibacterial and Antioxidant Activities of Leaves, Pods and Bark Extracts of *Acacia nilotica* (L.) Del., *Industrial Crops and Products* **77**: 873-882.

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GADJAH MADA
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Saha, M. R., Dey, P., Begum, S., De, B., Chaudhuri, T. K., Sarker, D. D., Das, A. P., Sen, A., 2016, Effect of *Acacia catechu* (L.f.) Willd. on Oxidative Stress with Possible Implications in Alleviating Selected Cognitive Disorders, *PLOS One*.

Saha, M. R., Priyankar, D., Sarkar, I., Sarker, D. D., Haldar, B., Chaudhuri, T. K., Sen, A., 2018, *Acacia nilotica* Leaf Improves Insulin Resistance and Hyperglycemia Associated Acute Hepatic Injury and Nephrotoxicity by Improving Systemic Antioxidant Status in Diabetic Mice, *J. of Ethnopharmacology* **210**: 275-286.

Sakthivel, K. M., Guruvayoorappan, C., 2013, *Acacia ferruginea* Inhibits Tumor Progression by Regulating Inflammatory Mediators-(TNF-a, iNOS, COX-2, IL-1β, IL-6, IFN-γ, IL-2, GM-CSF) and Pro-Angiogenic Growth Factor-VEGF, *Asian Pacific J Cancer Prev* **14** (6): 3909-3919.

Scarim, C. B., Chin, C. M., 2021, The Use of Heterocyclic-Based Azo Compounds Bearing Pyrrolidine, Imidazole, Triazole, and Thiazole Moieties for The Treatment of Neglected Tropical Disease Caused by *Schistosoma mansoni*, *EJ of Medicinal Chemistry Reports* **1**.

Simpson, M.G., 2010, *Plant Systematics* 2nd Ed., Elsevier, China.

Singh, S., Chakraborty, J. P., Mondal, M. K., 2020, Pyrolysis of Torrefied Biomass: Optimization of Process Parameters, *J. of Cleaner Production* **272**.

Sirin, S., Duyar, H., Aslim, B., Seferoğlu, Z., 2021, Synthesis and Biological Activity of Pyrrolidine/Piperidine Substituted 3-amido-9-ethylcarbazole Derivatives, *J. of Molecular Structure*.

Stohs, S. J. & Hartman, M. J., 2015, A Review of the Receptor Binding and Pharmacological Effects of N-methyltyramine, *Phytotherapy Research* **29**: 14-16.

Stork, C. M., Schreffler, S. M., 2014, Peyote dalam *Encyclopedia of Toxicology* 3rd Ed., Academic Press.

Stowe, D. F., 2011, Serotonin: Agonists, Antagonists and Reuptake Inhibitors dalam Essence of Anesthesia Practices 3rd Ed., Saunders.

Su, W., Huang, L., Ao, Q., Zhang, Q., Tian, X., Fang, Y., Lu, Y., 2011, Noscapine Sensitizes Chemoresistant Ovarian Cancer Cells to Cisplatin through Inhibition of HIF-1α, *Cancer Letters* **305** (1): 94-99.

Supriadi, Suhardjo, M., Catur, P., & Mulyadi, 2013, Dwifungsi Leguminosa sebagai Pakan dan Rehabilitasi Lahan Pascaerupsi Merapi, *Pros. Sem. Has. Penelitian Tanaman Aneka Kacang dan Umbi*.

UNIVERSITAS
GADJAH MADA
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QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Tittarelli, R., Mannocchi, G., Pantano, F., Romolo, F. S., 2015, Recreational Use, Analysis and Toxicity of Tryptamines, *Current Neuropharmacology* **13** (1): 26–46

Todkar, S., Todkar, R., Kavathekar, V., Kulkarni, S., Kulkarni, A., 2011, Secondary Metabolite Profiling of *Acacia concinna*, *Biosciences Biotechnology Research Asia* **8** (2): 653-660.

Toris, C. B., 2010, Pharmacology of Aqueous Humour Formation dalam *Encyclopedia of the Eye*, Academic Press.

Trendelenburg, U., Langeloh, A., Bonisch, H., 1987, Mechanism of Action of Indirectly Acting Sympathomimetic Amines, *Blood Vessels* **24**: 261–270.

Tsutsumi, E., Kanai, S., Ohta, M., Suwa, Y., Miyasaka, K., 2010, Stimulatory Effect of N-methyltyramine A Congener of Beer on Pancreatic Secretion in Conscious Rats. *Alcohol Clin Exp Res* **34** (Suppl 1): S14–S17.

Tzin, V., Galili, G., 2010, The Biosynthetic Pathways for Shikimate and Aromatic Amino Acids in *Arabidopsis thaliana*, *Arabidopsis Book*, **8**.

Undang-Undang Republik Indonesia, 2009, UU RI Nomor 35 tentang Narkotika, Jakarta.

Wagner, H., Bladt, S., 1996, Plant Drug Analysis: A Thin Layer Chromatography Atlas 2nd Ed, Springer, Berlin.

Wang, H., Wang, A., Gu, J., Fu, L., Lv, K., Ma, C., Tao, Z., Wang, B., Liu, M., Guo, H., Lu, Y., 2019, Synthesis and Antitubercular Evaluation of Reduced Lipophilic Imidazo[1,2-a]pyridine-3-carboxamide Derivatives, *EJ. of Medicinal Chemistry* **165**: 11-17.

Wang, X., Guo, R., Ma, L., Ding, Q., Meng, J., Chen, Y., Wu, J., 2020, Antiprolactinoma Effect of Hordenine by Inhibiting MAPK Signaling Pathway Activation in Rats, *Evidence-Based Complementary and Alternative Medicine*.

Warren, C. R., Aranda, I., Cano, F. J., 2011, Responses to Water Stress of Gas Exchange and Metabolites in *Eucalyptus* and *Acacia* spp., *Plant, Cell and Environment* **34**: 1609-1629.

Widodo, H., Rohman, A., & Sismindari, 2018, Pemanfaatan Tumbuhan Famili *Fabaceae* untuk Pengobatan Penyakit Liver oleh Pengobat Tradisional Berbagai Etnis di Indonesia, *Media Litbangkes*. **29** (1): 65-88.

Yadav, A., Yadav, M., Kumar, S., Sharma, D., Yadav, J. P., 2018, *In vitro* Antioxidant Activities and GC-MS Analysis of Different Solvent Extracts of *Acacia nilotica* Leaves, *Indian J. of Pharm Sci* **80** (5): 892-902.

UNIVERSITAS
GADJAH MADA
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QUEENIE ALIARAHMA FN, Dr. Djoko Santosa, M.Si.
Universitas Gadjah Mada, 2021 | Diunduh dari http://etd.repository.ugm.ac.id/

Yadav, V. K., 2013, Serotonin: The Central Link Between Bone Mass and Energy Metabolism dalam *Translational Endocrinology of Bone,* Academic Press.

Yokoo, Y., Kohda, H., Kusumoto, A., Naoki, H., Matsumoto, N., Amachi, T., Suwa, Y., Fukazawa, H., Ishida, H., Tsuji, K., Nukaya, H., 1999, Isolation From Beer and Structural Determination of A Potent Stimulant of Gastrin Release, *Alcohol Alcohol* **34** (2): 161-168.

Zaman, K., Rahim, F, Taha, M., Wadood, A., Shah, S. A. A., Gollapalli, M., Ullah, F., Ahmed, A., 2019, Synthesis, Thymidine Phosphorylase, Angiogenic Inhibition and Molecular Docking Study of Isoquinoline Derivatives, *Bioorganic Chemistry* **89**.