

- Adam, A.M., Nasir, S. A. R., Merchant, A.Z., Rizvi, A.H., Rehan, A., Shaikh, A.T., Abbas, A.H., Godil, A., Khetpal, A., Mallick, M.S.A., Khan, M.S., Lashari, M.N. 2017. Efficacy of serum blood urea nitrogen, creatinine and electrolytes in the diagnosis and mortality risk assessment of patients with acute coronary syndrome. *Ind. Heart J.* , <http://dx.doi.org/10.1016/j.ihj.2017.09.009>
- Ali, S.K. dan Saleh, A.M. 2012. *A. maxima* an overview. *Int. J.l of Pharm.*. 4 (3):9-15.
- Alvarenga, R.R., Rodrigues, P.B., Cantarelli, V. De Souza, Zangeronimo, M.G., da Silva Junior, J. W., a Silva, L., dos Santos, L.M., Pereira, L.J. 2011. Energy values and chemical composition of *A. maxima* (*A. maxima* platensis) evaluated with broilers. *R. Bras. Zootec.* 40(5):992-996.
- Baker, H.J., Lindsey, J.R., Wasibroth, S.H. 2013. *The Laboratory Rat: Biology and Diseases*. Academic Press. P73-74.
- Bobulescu, I.A. dan Moe, O.W. 2012. Renal transport of uric acid: Evolving concepts and uncertain. *Adv Chronic Kidney Dis.* 19(6):358-371.
- Bock, C., Krienitz, L. dan Proschold, T. 2011. Taxonomic reassessment of the genus *C. vulgaris* (Trebouxiophyceae) using molecular signatures (barcodes), including description of seven new species. *Fottea* 11(2):293-312.
- Boxmann, A.C., Ahmed, M.S., Marques, N.C., Menon, V.B., Pereira, A.B., Kirsztajn, G.M., dan Heilberg, I. P. 2008. Influence of Muscle Mass and Physical Activity on Serum and Urinary Creatinine and Serum Cystatin C. *Clin J Am Soc Nephrol.* 3:348-354.
- Brosnan, J.T. dan Brosnan, M.E. 2010. Creatine metabolism and the urea cycle. *Molecular genetics and Metabolism.* 100:S49-S52.
- Bux, Faisal. 2013. *Biotechnological Applications of Microalgae: Biodiesel and Value-Added Products*. CRC Press. New York. Hal. 1-2.
- Ciferri, O. 1983. *A. maxima*, the edible microorganism. *Microbiology Reviews.* 47(4): 551-578.
- Crombez, E.A. dan Cederbaum, S.D. 2007. *Neurology and Clinical Neuroscience Chapter 110: Urea Cycle Disorders*. Elsevier. Hal. 1469.
- da Silva, R.P., Nissim, I., Brosnan, M.E., dan Brosnan, J.T. 2008. Creatine synthesis: hepatic metabolism of guanidinoacetate and creatine in the rat in vitro and in vivo. *Am J Physiol Endocrinol Metab.* 296: E256-E261.
- Davis, A. dan Clegg, C.J. 2017. *Biology for the IB Diploma Study and Revision Guide*. Hachette. United Kingdom.
- Deng, X., Gao, K., Addy, M., Li, D., Zhang, R., Lu, Q., Ma, Y., Cheng, Y., Chen, P., Liu, Y., Ruan, R., 2018. Cultivation of *C. vulgaris* vulgaris on anaerobically digested awne manure with daily recycling of the post-harvest culture broth. *Bioresource Tech.*. 247: 716-723.



UNIVERSITAS
GADJAH MADA

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ROHMI SALAMAH, Dra. Mulyati Sarto, M.Si

Dewi, P.R.P., Firdausy, dan Norhidayah, R. 2019. Pengaruh Stres Fisik terhadap Kadar

Kreatinin Serum Tikus Wistar Jantan (*Rattus norvegicus*). *E-Journal Pustaka Kesehatan*. 4(2):218-221.

Dudek, R.W. 2006. *High-yield Kidney*. Lippincott Williams & Wilkins. New York. Hal. 13-14.

Enyidi, U.D. 2017. *Chlorella vulgaris* as Protein Source in the Diets of African Catfish *Clarias gariepinus*. *Fishes*. 2(17):1-12.

Estrada, J.E.P., Besco's, P.B., del Fresno, A.M.V. 2001. Antioxidant activity of different fractions of *A. maxima* platensis protean extract. *IL Farmaco*. 56 (2001):497-500.

Fidiyatun, Onny, S., dan Suhartono. 2013. Hubungan Kadar Pb dalam Darah dengan Kejadian Gangguan Fungsi Hati pada Pekerja Peleburan Timah Hitam di Kabupaten Tegal. *J. Kes. Lingkungan Ind.*. 12(2):149-153.

Foschi, F.G., Morelli, M.C., Savini, S., Dall'Aglio, A.C., Lanzi, A., Cescon, M., Ercolani, G., Cuccgetti, A., Pinna, A.D., dan Stefanini, G.F. 2015. Urea cycle disorders: a case report of a successful treatment with liver transplant and a literature review. *World J Gastroenterol*. 21(13):4063-4068.

Ghara, A.R. dan Ghadi, F.E. 2018. Effect of purslane on kidney failure following copper toxicity in a rat model. 6(1):25-32.

Gilbert, S.J. dan weiner, D.E. 2014. National Kidney Foundation Primer on Kidney Disease (Sixth Edition). Elsevier. Phildelphia. Hal. 294.

Higgins, Chris. 2016. *Urea and The Clinical Value of Measuring Blood Urea Concentration*. Radiometer Medical ApS. Denmark. Hal. 1-5. Acutecaretesting.org.

Hoek, C., Mann, D., Jahns, H.M. 1995. *Algae: An Introduction to Phycology*. Cambridge University Press. Australia. Hal. 365.

Johnson, C.W., Timmons, D.L., Hall, P.E. 2003. *Essential Laboratory Mathematics: Concepts and Applications for the Chemical and Clinical Laboratory Technician 2th Edition*. Thomsons Delmar Learning. Canada. Hal. 146.

Johnson, R.J., Kang, Duk-Hee, Feig, D., Kivlighn, S., Kanellis, J., Watanabe, S., Tuttle, K.R., Rodriguez-Iturbe, B., Herrera-Acosta, J., dan Mazzali, M. 2003. Is There a Pathogenetic Role for Uric Acid in Hypertension and Cardiovascular and Renal Disease?: Review. *Hypertension*. 41:1183-1190.

Jones, M. & Jones. G. *Cambridge IGCSE® Biology Coursebook with CD-ROM*. Cambrigde University Press. UK. Hal. 154.

Joney, K., Sayed, M., Rao, D.S. Evaluation of Antodepresant activity of *Spirulina* by using experimentally induced depressed animals. *Pharm. Sciences*. 1(5):353-358.

Kaneko, K., Aoyagi, Y., Fukuuchi, T., Inazawa, k., dan Yamaoka, N. 2014. Total purine and purine base content of ommn foodstuffs for facilitating nutritional therapy for gout and hyperuricemia-review. *Biol. Pharm. Bull*. 37(5):709-721.

Koru, Edis. 2012. *Food Additive: Earth Food A. maxima (Anthtropira) Productin and Quality Standarts*. Researchgate.



- Kushiya, A., Nakatsu, Y., Matsunaga, Y., Yamamotoya, T., Mori, K., Ueda, k., Inoue, Y., sakoda, H., Fujishiro, M., Ono, H., dan Asano, T. 2016. Role of Uric Acid Metabolism-Related Inflammation in the Pathogenesis of Metabolic Syndrome Components Such as Atherosclerosis and Nonalcoholic Steatohepatitis: *Review article. Mediators of Inflamm.* <http://dx.doi.org/10.1155/2016/8603164>
- Lee, R.E. 2018. *Physcolgy 5th Edition*. Cambridge University Press. Australia. Hal. 207.
- Little, M.H. 2015. *Kidney Development, Disease, Repair, and Regeneration*. Elsevier. London. Hal. 27-28.
- Maiuolo, J., Oppedisano, F., Gratteri, S., Muscoli, C., dan Mollace, V. 2016. Regulation of uric acid metabolism and excretion. *International Journal of Cardiology*. 213:8-14.
- Mazali, M., Hughes, J., Kim, Yoo-Goo, Jefferson A., Kang, Duk-Hee, Gordon, K.L., Lan, H.Y., Kivlighn, S., Johnson, R.J. 2001. Elevated Uric Acid Increases Blood Pressure in the Rat by a Novel Crystal-Independent Mechanism. *Hypertension*. 38:1101-1106.
- McQueen, C. E. 2006. *Pharmaceutial Care with Dietary Supplements: Concepts nd Common Sense*. ASHP. USA. Hal. 2
- Mora, L., Sentandreu, M. A., dan Toldora, F. 2008. Contents of creatine, creatinine and carnosine in porcine muscles of different metabolic types. *Meat Science*. 79:709-717. <https://doi.org/10.1016/j.meatsci.2007.11.002>
- Musch, W., Verfaillie, L., dan Decaux, G. 2006. Age-Related Increase in Plasma Urea Level and Decrease in Fractional Urea Excretion: Clinical Application in the Syndrome of Inappropriate Secretion of Antidiuretic Hormone. *Clin J am Soc Nephrol*. 1:909-914. doi: 10.2215/CJN.00320106
- Nanda, S.S., A An, S. S., dan Yi, D.K. 2015. Measurement of creatinine in human plasma using a functional porous polymer structure sensing motif. *Int J of Nanomedicine*. 10:93-99.
- Nordberg, H., Cantor, M., Dusheyko, S., Hua, S., Poliakov, A., Shabalov, I., Smirnova, T., Grigoriev, Dubchak I. 2014. The genome portal of the Department of Energy Joint Genome Institute: 2014 updates. *Nucleic Acids Res*. 2014,42(1):D26-31.
- Nuhu, A.A. 2013. *A. maxima (Arthrospira): An Important Source of Nutritional and Medicinal Compounds. Journal of Marine Biology*. Review. <http://dx.doi.org/10.1155/2013/325636>
- OECD, 2001. *Acute Oral Toxicity-Acute Toxic Class Method*. <http://www.oecd.org/chemicalsafety/risk-assessment/1948370>. Test no. 423.
- OECD. 2001. OECD GUIDELINE FOR TESTING OF CHEMICALS. <https://www.oecd.org/chemicalsafety/risk-assessment/1948378.pdf>
- Offor, S.J., Mbagwu, H.O.C., Orisakwe, O.E. 2017. Lead Induced Hepato-renal damage in Male Albino Rats and Effects of activated Charcoal.



- Panahi, Y., Bacher, R., Karami, G.R., Bader, Z., Sanebkar, A. 2015. A randomized controlled trial of 6-week *Chlorella vulgaris* supplementation in patients with major depressive disorder. *Complementary Therapies Med.* 23:596-602.
- Parasuraman, S. Raveendaran, R., dan Kesavan, R. 2010. Blood sample collection in small labortory animals. *J Pharmacol Pharmacother.* 1(2): 87-93.
- Patton, K. T. 2015. *Anatomy and Physiology*. Elsevier. Missouri. Pp 968-969.
- Patton, K.T. dan G.A. Thibodeau. 2015. *Structure and Function of The Body*. Elsevier. Missouri. Pp. 414-417.
- Pursriningsih, S.S. dan Panunggal, B. 2015. Hubungan Asupan Purin, Vitamin C dan Aktivitas Fisik terhadap Kadar Asam Urat pada Remaja Laki-Laki. *J. of Nutrition College.* 4(1):24-29.
- Randviir, E. P. dan Banks, C.E. 2013. Analytical methods for quantifying creatinine within biological media. *Sensors and Actuators B.* 183 : 239-252.
- Rastogi, S.K. 2008. Renal effects of environmental and occupational lead exposure. *Indian J Occup Environ Med.* 12(3):103-106. doi: [10.4103/0019-5278.44689](https://doi.org/10.4103/0019-5278.44689)
- Rennke, H.G., dan Denker, B.M. 2007. *Renal Pathophysiology: The Essentials*. Lippincott Williams & Wilkins. New York. Hal. 2-3.
- Rhoades, R. dan Bell, D.R. 2009. *Medical Physiology: Principle of Clinical Medicine*. Lippincott Williams & Wilkins. New York. Hal. 396-397.
- Safi, Carl, Zebib, B., Merah, O., Pontalier, Vaca-Garcia, C. 2014. Morphology, composition, production, processing and applications of *C. vulgaris vulgaris*: a review. *Renewable and Sustainable Energy Reviews.* 35:265-278.
- Shams, M., Aghababa, A.H., Kardani-esfahami, S., dan Amini, N.G. 2017. Industrial Production of Microalgae *Arthrospira (A. maxima)* platensis in the Central Iran. *Int. J. Pure App. Biosci.* 5 (4): 31-36
- Shils, M.E. dan Shike, M. 2006. *Modern Nutrition in Health and Disease* 10th Edition. . Lippincott Williams & Wilkins. London. Hal. 840.
- Sica, A.M.P., sidharta, B.B.R., dan Fitria, L. 2017. Uji Fungsi Ginjal dan Hati Tikus Putih (*Rattus novergicus* Berkenhout, 1769) Galur Wistar Pada Uji Toksisitas Oral Subkronis Filtrat Buah Luwungan (*Ficus hispida* L.f.). <http://e-journal.uajy.ac.id/12553/1/JURNAL.pdf>
- Sihombing, M. dan Tuminah, S. 2011. Perubahan Nilai Hematologi, Biokimia Darah, Bobot Organ dan Bobot Badan Tikus Putih pada Umur Berbeda. *Jurnal Veteriner.* 12(1) : 58-64.
- Sotiroudis, T.G., Sotiroudis, G.T., 2013. Health aspects of *A. maxima (Arthrospira)* microalga food supplement. *J. Serb. Chem. Soc.* 78 (3):395–405.
- Thomas, N. 2013. *Renal Nursing*. John Wiley and Sons. New York.
- Treuting, P.M, Dintzis, S.M., dan Montine, K.S. 2017. *Comparative Anatomy and Histology: A Mouse, Rat, and Human atlas*. Academic Press. New York. Hal. 277.



UNIVERSITAS
GADJAH MADA

Verdiansah. 2016. *Praktis Pemeriksaan Fungsi Ginjal*. CDK 237.43(2): 148-237.

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ROHMI SALAMAH, Dra. Mulyati Sarto, M.Si

Veselá, J., Škaloud, P., Urbánková P., Škaloudová M., Kalina T. 2011. The CAUP image database. *Fottea* 11(2): 313–316.

Vonshak, A. 1997. *A. maxima Platensis Arthrospira: Physiology, Cell-Biology and Biotechnology*. Taylor & Francais. London. Hal. 2.

Weiner, I.D., Mitch, W.E., dan sands. J.M. 2014. Urea and ammonia metabolism and the control of renal nitrogen excretion. *Clin J Am Soc Nephrol*. 0:1-15.

Williamson, L. dan New, D. 2014. How the use of creatine supplements can elevate serum creatinine in the absence of underlying kidney pathology. *Case report*. doi:10.1136/bcr-2014-204754

Yudkoff M. dalam Siegel GJ, Agranoff BW, Albers RW. 1999. *Basic Neurochemistry: Molecular, Cellular and Medical Aspects*. 6th edition. Lippincott-Raven. Philadelphia. <https://www.ncbi.nlm.nih.gov/books/NBK27982/>