

DAFTAR PUSTAKA

- Agilent Technologies. 2001. *Agilent HPLC Primer*. U.S.A 5988-2045EN.
- Ahmad, M., Benjakul, S. dan Nalinanon, S., 2010. Compositional and physicochemical characteristics of acid solubilized collagen extracted from the skin of unicorn leatherjacket (*Aluterus monoceros*). *Food Hydrocolloids*, 24(6-7), pp.590-591.
- Asyiraf, N., 2011, Extraction of Collagen From Fish Waste and Determination of Its Physico-chemical Characteristic, Final Project, Degree of Bachelor of Science (Hons.) Food Science and Technology, Faculty of Applied Sciences, Selangor: Universiti Teknologi MARA.
- Cardoso, V.S., Quelemes, P.V., Amorin, A., Primo, F.L., Gobo, G.G., Tedesco, A.C., Mafud, A.C., Mascarenhas, Y.P., Corrêa, J.R., Kuckelhaus, S.A *et al.*, 2014, Collagen Based Silver Nanoparticles for Biological Applications: Synthesis and Characterization, *Journal of Nanobiotechnology*, 12 (36): 1-9.
- Cen, L., Liu, W.E.I., Cui, L.E.I., Zhang, W. dan Cao, Y., 2008. Collagen tissue engineering: development of novel biomaterials and applications. *Pediatric research*, 63(5), p.492.
- Das, T., Häring, M., Haldar, D. dan Díaz, D.D., 2018. Phenylalanine and derivatives as versatile low-molecular-weight gelators: design, structure and tailored function. *Biomaterials science*, 6(1), pp.38-59.
- Depalle, B., Qin, Z., Shefelbine, S.J. dan Buehler, M.J., 2015. Influence of cross-link structure, density and mechanical properties in the mesoscale deformation mechanisms of collagen fibrils. *Journal of the mechanical behavior of biomedical materials*, 52, pp.1-13.
- Dong, C. dan Lv, Y., 2016. Application of collagen scaffold in tissue engineering: recent advances and new perspectives. *Polymers*, 8(2), p.42.
- Duan, R., Zhang, J., Du, X., Yao, X. dan Konno, K., 2009. Properties of collagen from skin, scale and bone of carp (*Cyprinus carpio*). *Food chemistry*, 112(3), pp.702-706.

- Edgar, L., McNamara, K., Wong, T., Tamburrini, R., Katari, R. dan Orlando, G., 2016. Heterogeneity of scaffold biomaterials in tissue engineering. *Materials*, 9(5), p.332.
- Felician, F. F., Xia, C., Qi, W., dan Xu, H. 2018. Collagen from Marine Biological Sources and Medical Applications. *Chemistry and Biodiversity*, 15(5). <https://doi.org/10.1002/cbdv.201700557>
- Gaspar, A., Moldovan, L., Constantin, D., Stanciuc, A.M., Boeti, P.S. dan Efrimescu, I.C., 2011. Collagen-based scaffolds for skin tissue engineering. *Journal of medicine and life*, 4(2), p.172.
- Gauglitz GG. 2013. Management of keloids and hypertrophic scars: Current and emerging options. *Clin Cosmet Investig Dermatol.*; 6: 103–14. DOI: 10.2147/CCID.S35252
- Giraud-Guille, M.-M., Besseau, L., Chopin, C., Durand, P., dan Herbage, D. (2000). Structural aspects of fish skin collagen which forms ordered arrays via liquid crystalline states. *Biomaterials*, 21, pp. 899–906.
- Grebe, S.K. dan Singh, R.J., 2011. LC-MS/MS in the clinical laboratory—where to from here?. *The Clinical Biochemist Reviews*, 32(1), p.5.
- Gu, L., Jones, A.D. dan Last, R.L., 2012. Rapid LC–MS/MS profiling of protein amino acids and metabolically related compounds for large-scale assessment of metabolic phenotypes. In *Amino Acid Analysis* pp. 1-11. Humana Press, Totowa, NJ.
- Hartati, I. dan Kurniasari, L., 2010. Kajian produksi kolagen dari limbah sisik ikan secara ekstraksi enzimatis. *Momentum*, 6(1).
- Hayashi, Y., Ikeda, T., Yamada, S., dan Yanagiguchi, K., 2012, Chapter 11: Fish Collagen and Tissue Repair dalam Kim, S.K., *Marine Cosmeceuticals: Trends and Prospects*, New York: CRC Press Taylor and Francis Group.
- Jamilah B, Hartina UMR, Hashim MD, Sazili AQ. 2013. Properties of collagen from barramundi (*Lates calcarifer*) skin. *International Food Research Journal* 20(2): 835-842.
- Kittiphattanabawon P, Soottawat Benjakul S, Visessanguan W, Nagai T, Tanaka M. 2005. Characterisation of acid-soluble collagen from skin and bone of bigeye snapper (*Priacanthus tayenus*). *Food Chemistry* 89: 363-372.
- Kristina, M. dan Sulantiwi, S., 2017. SISTEM PENDUKUNG KEPUTUSANMENENTUKAN KUALITASBIBIT IKAN GURAMEDI PEKON SUKOSARI MENGGUNAKAN APLIKASI VISUAL BASIC 6.0. *Jurnal TAM (Technology Acceptance Model)*, 4, pp.26-33.

- Lim, Y.S., Ok, Y.J., Hwang, S.Y., Kwak, J.Y. dan Yoon, S., 2019. Marine Collagen as A Promising Biomaterial for Biomedical Applications. *Marine drugs*, 17(8), p.467.
- Massod, Z., Yasmeen, R., Haider, M.S., Tarar, O. M., Zehra, L., dan Hossain, M. Y., 2015, Evaluation of Crude Protein and Amino Acid Contents From The Scales of Four Mullet Species (Mugilidae) Collected From Karachi Fish Harbour, Pakistan, *Indian Journal of Geo-Marine Science*, 44 (5): 1-9.
- Mhanna, R. dan Hasan. 2017. A. 'Introduction to Tissue Engineering', *Tissue Eng. Artif. Organs*. pp. 3-34.
- Muralidharan, N., Jeya Shakila, R., Sukumar, D. dan Jeyasekaran, G. 2011. Skin, bone and muscle collagen extraction from the trash fish, leather jacket (*Odonus niger*) and their characterization. *Journal of Food Science and Technology*, 50(6), pp.1106-1113.
- Nagai T, Izumi M, Ishii M. 2004. Preparation and partial characterization of fish scale collagen. *International Journal of Food Science and Technology*. 39:239-244.
- Nurhayati, N. dan Peranginangin, R., 2009. Prospek pemanfaatan limbah perikanan sebagai sumber kolagen. *Squalen Bulletin of Marine and Fisheries Postharvest and Biotechnology*, 4(3), pp.83-92.
- Nurjanah, N., Suwandi, R. dan Yogaswari, V., 2010. Karakteristik kimia dan fisik sisik ikan gurami (*Osporonemus gouramy*). *Akuatik: Jurnal Sumberdaya Perairan*, 4(2). p. 6
- Okazaki, E. dan Osako, K., 2014. Isolation and characterization of acid-soluble collagen from the scales of marine fishes from Japan and Vietnam. *Food chemistry*, 149, p. 268
- Parenteau-Bareil, R., Gauvin, R. dan Berthod, F., 2010. Collagen-based biomaterials for tissue engineering applications. *Materials*, 3(3), pp.1863-1887.
- Permana, H.J., Rizqi, F. dan Defrigunawan, A.I., 2012. Inovasi Tissue Engineering Menggunakan Limbah Ikan Sebagai Biomaterial Pengisi Soket Pasca Ekstraksi. *Jurnal Material Kedokteran Gigi*, 1(2), pp.106-111.
- Prahasanti, C., 2018. Tissue Engineering: Harapan Masa Depan Mengatasi Masalah Penderita Dengan Periodontitis Agresif Pidato Disampaikan pada Pengukuhan Jabatan Guru Besar dalam Bidang Ilmu Periodonsia pada Fakultas Kedokteran Gigi Universitas Airlangga di Surabaya pada Hari Sabtu, Tanggal 28 Juli 2018. p. 3

- Prastiti, L.A. dan Prayitno, S.B., 2015. Pengaruh Penambahan Ekstrak Jahe Merah (*Zingiber officinale* var. *Rubrum*) pada Media Pemeliharaan terhadap Kelulushidupan dan Pertumbuhan Ikan Gurami (*Osphronemus gouramy*) yang Diinfeksi Bakteri *Edwardsiella tarda*. *Journal of Aquaculture Management and Technology*, 4(3), pp.31-37.
- Pratama, S.M., Barqly, G.J., Widyastuti, R., Wardani, R.N., Sielma, D.F. and Munawir, A., 2015. Pengaruh Lama Perendaman terhadap Absorpsi Tetrasiklin pada Adsorben Limbah Sisik Ikan Gurami (*Osphronemus Gouramy*). *Majalah Kedokteran Gigi Indonesia*, 1(2), pp.161-166.
- Pringgandini, L.A., Indarti, G.Y., Melinda, M. dan Sari, M., 2018. Efektivitas spray nanokolagen limbah sisik ikan mas (*Cyprinus carpio*) untuk mempercepat proses penyembuhan luka insisi Effectiveness of nano-collagen spray of goldfish scales waste (*Cyprinus carpio*) in accelerating the incision wound healing process. *Jurnal Kedokteran Gigi Universitas Padjadjaran*, 30(2), pp.114-120.
- Pustlauk, W., Paul, B., Gelinsky, M. dan Bernhardt, A., 2016. Jellyfish collagen and alginate: Combined marine materials for superior chondrogenesis of hMSC. *Materials Science and Engineering: C*, 64, pp.190-198.
- Rukmana, I.H.R., 2005. Penangkaran IKAN GURAMI, Pembenihan dan Pembesaran. Kanisius. pp. 1, 5
- Setyowati, H. dan Setyani, W., 2015. Potensi Nanokolagen Limbah Sisik Ikan Sebagai Cosmeceutical. *Jurnal Farmasi Sains dan Komunitas (Journal of Pharmaceutical Sciences and Community)*, 12(1). pp. 7-8
- Shoulders M.D. dan R.T. Raines. 2009. Collagen structure and stability. *Annu Rev Biochem*, 78:929-958. Doi:10. 1146/annurev.biochem.77.032207.12 0833.
- Singh, O., Gupta, S.S., Soni, M., Moses, S., Shukla, S., dan Mathur, R.K., 2011. Collagen Dressing Versus Conventional Dressings in Burn and Chronic Wounds: A Retrospective Study. *Journal of Cutaneous and Aesthetic Surgery*. 4 (1): 12–16.
- Tamilmozhi S, Veeruraj A, dan Arumugam M. 2013. Isolation and characterization of acid and pepsin-solubilized collagen from the skin of sailfish (*Istiophorus platypterus*). *Food Research International* 54: 1499-1505.
- Torres FG, Troncoso OP, Nakamatsu J, Grande CJ, Gómez CM. 2008. Characterization of the nanocomposite laminate structure occurring in fish scales from *Arapaima gigas*. *Materials Science & Engineering C*. 28(8):1276-1283.
- Uversky, V.N., 2015. The intrinsic disorder alphabet. III. Dual personality of serine. *Intrinsically disordered proteins*, 3(1), p.e1027032.

- Vogeser, M. dan Seger, C., 2008. A decade of HPLC–MS/MS in the routine clinical laboratory—Goals for further developments. *Clinical biochemistry*, 41(9), pp.649-662.
- Wulandari, W. dan Suptijah, P., 2015. Effectiveness of Alkaline Pretreatment and Acetic Acid Hydrolysis on the Characteristics of Collagen from Fish Skin of Snakehead. *Jurnal Pengolahan Hasil Perikanan Indonesia*, 18(3). p.12
- Yamane, S., Iwasaki, N., Majima, T., Funakoshi, T., Masuko, T., Harada, K., Minami, A., Monde, K. dan Nishimura, S.I., 2005. Feasibility of chitosan-based hyaluronic acid hybrid biomaterial for a novel scaffold in cartilage tissue engineering. *Biomaterials*, 26(6), pp.611-619.
- Yang, K.Y., Lin, L.C., Tseng, T.Y., Wang, S.C. dan Tsai, T.H., 2007. Oral bioavailability of curcumin in rat and the herbal analysis from *Curcuma longa* by LC–MS/MS. *Journal of chromatography B*, 853(1-2), pp.183-189.
- Yoshikawa, M., Kakigi, H., Maeda, H., Nishikawa, I., Ikenaga, H., Inamoto, T. dan Tsuji, N., 2015. Bone formation in a scaffold composed of cylindrical hydroxyapatite and tryptophan-or lysine-coated sponge in vivo. *Journal of Biomedical Science and Engineering*, 8(06), p.389.
- Zhang, Y., Liu, W., Li, G., Shi, B., Miao, Y. dan Wu, X., 2007. Isolation and partial characterization of pepsin-soluble collagen from the skin of grass carp (*Ctenopharyngodon idella*). *Food chemistry*, 103(3), pp.906-912.