

DAFTAR PUSTAKA

- Abdollahi, M. & Hosseini, A. 2014. *Hydrogen Peroxide*. In: Wexler, P. (Ed.), *Encyclopedia of Toxicology*. Elsevier Inc., Academic Press, San Diego pp. 967–970.
- Abduljabar, M. K., Kasim, K. F., Ma'Radzi, A. H., & Seng, N. S. S. 2019. Recent Advances in Extraction of Clinacanthus Nutans: A review. *Journal of Physics: Conference Series*, 1424(1).
- Ambrose, M., & Goldstein, L. S. B. 2018. Mitochondrial Function and Redox Sensing in Aging & Aging-Related Diseases. *Biology*, 7(4):61.
- Amelia, A., Saleh, D. M., Pramono, H., & Sistina, Y. 2013. Motilitas dan Viabilitas Spermatozoa Itik Lokal (*Anas platyrhynchos*) Setelah Penyimpanan Refrigerator dalam Ekstender Dikombinasi Berbagai Konsentrasi Krioprotektan Gliserol. *Majalah Ilmiah Biologi BIOSFERA: A Scientific Journal*, 30(1): 1–7.
- Aprilianti, S. H. U., Purwestri, Y.A., Saragih, H.T.S.S.G., & Nuriliani, A. 2024. Extract of Black Rice (*Oryza sativa* L. 'Sembada Hitam') Bran Protect Cytotoxicity of Hydrogen Peroxide on Vero Cells in a Short Time Incubation. *Journal Of Tropical Life Science*, 14(1): 1-12.
- Asmorowati, H., & Lindawati, N. Y. 2019. Penetapan kadar flavonoid total alpukat (*Persea americana* Mill.) dengan metode spektrofotometri. *Jurnal Ilmiah Farmasi*, 5(2): 51–63.
- Andiana, M., Rachmawati, Y., & Andayani, S. S. 2017. Kultur Sel Baby Hamster Kidney (BKH) Menggunakan Media *Dulbecco's Modified Eagle Medium* (DMEM). *BIOTROPIC The Journal of Tropical Biology*, 1(1): 1–8.
- Andrés, C. M. C., Pérez de la Lastra, J. M., Juan, C. A., Plou, F. J., & Pérez-Lebeña, E. 2022. Chemistry of Hydrogen Peroxide Formation and Elimination in Mammalian Cells, and Its Role in Various Pathologies. *Stresses*, 2(3): 256–274.
- Arief, H., & Widodo, M. A. 2018. Peranan Stres Oksidatif pada Proses Penyembuhan Luka. *Jurnal Ilmiah Kedokteran Wijaya Kusuma*, 5(2): 22–29.
- Asyiraf, N. 2011. *Extraction of Collagen From Fish Waste and Determination of*

Its Physico-chemical Characteristic. Universiti Teknologi MARA. Selangor.

- Baker D.J., Childs, B.G., Durik, M., Wijers, M.E., & Sieben, C.J. 2016. Naturally Occurring p16(Ink4a)-positive Cells Shorten Healthy Lifespan. *Nature*, 530: 184–189.
- Basith, A., Noer, S., Faizah, M., Wojalaka, M., & Timur, T. 2023. Variation of Anthocyanin Content Level Among Four Local Varieties Of Black Rice (*Oryza sativa* L.) In Indonesia. *Jurnal pertanian* ,14: 1–8.
- Bitwell, C., Indra, S. Sen, Luke, C., & Kakoma, M. K. 2023. A review of modern and conventional extraction techniques and their applications for extracting phytochemicals from plants. *Scientific African*, 19: 1585.
- Buanasari., Eden, W.T., & Solichah, A.I. 2017. Extraction of Phenolic Compounds from Petai Leaves (*Parkia speciosa* Hassk.) Using Microwave and Ultrasound Assisted Methods. *Jurnal Bahan Alam Terbarukan*, 6(1): 25-31.
- Chiu, J., & Dawes, I.W. 2012. Redox control of cell proliferation. *Trends in Cell Biology*, 22 (11): 592-601.
- Choi, M.J., Kim, H.Y., & Cho, E.J. 2012. Anti-aging Effect of Black Rice Bran Against H₂O₂-induced Premature Senescence. *Journal of Medicinal Plant Research*, 8(20): 3672-3680
- Cole, M. A., Quan, T., Voorhees, J.J., & Fisher G.J. 2018. Extracellular Matrix Regulation of Fibroblast Function : Redefining Our Perspective on Skin Aging. *J Cell Commun Signal*, 12(1): 35–43.
- Conara, F. C., Oktavya, G., Purwestri, Y. A., & Nuriliani, A. 2023. Effect of Black Rice Bran ‘Sembada Hitam’ on T47D Breast Cancer Cells. *Journal of Tropical Life Science*, 13(3): 589–598.
- Csekes, E., & Račková, L. 2021. Skin aging, cellular senescence and natural polyphenols. *International Journal of Molecular Sciences*, 22(23): 1-51.
- Dewatisari, W. F., Rumiyaniti, L., & Rakhmawati, I. 2018. Rendemen dan Skrining Fitokimia pada Ekstrak Daun *Sansevieria* sp. *Jurnal Penelitian Pertanian Terapan*, 17(3):197.
- Di Micco, R., Krizhanovsky, V., Baker, D., & d’Adda di Fagagna, F. 2021. Cellular Senescence in Ageing: from Mechanisms to Therapeutic Opportunities.

Nature Reviews Molecular Cell Biology, 22(2): 75–95.

Dodig, S., Čepelak, I., & Pavić, I. 2019. Hallmarks of Senescence and Aging. *Biochemia Medica*, 29(3): 1–15.

Dunn, J. H. & Koo, J. 2013. Psychological Stress and Skin Aging: A Review Of Possible Mechanisms and Potential Therapies. *Dermatology online journal*, 19(6).

Dwiatmini K., & Azfa, H. 2018. Karakterisasi Kadar Antosianin Varietas Local Padi Warna sebagai SDG Pangan Fungsional. *Bul. Plasma Nutfah*, 24(2): 125-134.

Fadlila, W. N., Yuliawati, K. M., & Syafnir, L. 2015. Identifikasi Senyawa Aktif Antibakteri dengan Metode Bioautografi Klt terhadap Ekstrak Etanol Tangkai Daun Talas (*Colocasia Esculenta* (L.) Schott). *Prosiding Penelitian Spesia Unisba*, 2460–6472: 583–590.

Fakhruzy, Kasim, A., Asben, A., & Anwar, A. 2020. Review: Optimalisasi Metode Maserasi Untuk Ekstraksi Tanin Rendemen Tinggi. *Menara Ilmu*, 14(2): 38–41.

Fauziyah, N., Widyasanti, A., & Sutresna, Y. 2022. Kajian Pengaruh Konsentrasi Etanol Terhadap Karakteristik Oleoresin Ampas Jahe Merah (*Zingiber officinale* Roscoe) Limbah Penyulingan. *Teknotan*, 16(3): 169.

Fayyaz, M., Mehran, R., Alia, N., & Awan, S.J. 2018. A Systematic Review Of Aging And Its Causes. *International Journal of Development Research*, 8(11): 23904-23908

Frieda, F., Julianto, I., Dharmawan, N., Kusumawardani, A., Adi, N., & Ellistasari, E. Y. 2022. Gambaran Deposisi Kolagen Tipe I Terhadap Usia Tikus Galur Wistar: Penelitian in Vivo. *Medika Kartika Jurnal Kedokteran Dan Kesehatan*, 5(2):183–194.

Ganceviciene, R., Liakou, A. I., Theodoridis, A., Makrantonaki, E & Zouboulis, C. 2012. Skin antiaging strategies. *Dermato-endocrinology*, 4(3): 308-319.

García-Sánchez, A., Miranda-Díaz, A. G., & Cardona-Muñoz, E. G. 2020. The Role of Oxidative Stress In Physiopathology and Pharmacological Treatment With Pro- and Antioxidant Properties in Chronic Diseases. *Oxidative Medicine and Cellular Longevity*, 1-16.

- Ghasemi, M., Turnbull, T., Sebastian, S., & Kempson, I. 2021. The MTT Assay: Utility, Limitations, Pitfalls, and Interpretation in Bulk and Single-Cell Analysis. *International Journal of Molecular Sciences*, 22:12827 (1-30).
- Ghasemzadeh, A., Karbalaii, M.T., Jaafar, H.Z.E., & Rahmat, A. 2018. Phytochemical Constituents, Antioxidant Activity, and Antiproliferative Properties of Black, Red, and Brown Rice Bran. *Chemistry Central Journal*, 12(1).
- Gkogkolou, P & Böhm, M. 2012. Advanced Glycation End Products: Key Players In Skin Aging. *Dermatoendocrinology*, 4(3): 259-270.
- Guo, J., Huang, X., Dou, L., Yan, M., & Shen, T. 2022. Aging and Aging-Related Diseases : from Molecular Mechanisms to Interventions And Treatments. *Signal Transduction and Targeted Therapy*. 7(391) : 1-40.
- Gustia, E., Aldi, Y., Hefni, D., Kamal, S., Dachriyanus, & Wahyuni, F. S. 2022. The Immunostimulant Activities of the Gambir (*Uncaria gambir* Roxb) on Raw 264.7 Cell . *Proceedings of the 2nd International Conference on Contemporary Science and Clinical Pharmacy 2021 (ICCSCP 2021)*, 40: 282-289.
- Hakkinen KM, Harunaga JS, Doyle AD, Yamada KM. 2011. Direct Comparisons of The Morphology, Migration, Cell Adhesions, and Actin Cytoskeleton of Fibroblasts in Four Different Three-Dimensional Extracellular Matrices. *Tissue Eng Part A*. 17(5-6):713-24.
- Hall, R. A., de Sordi, L., MacCallum, D. M., Topal, H., Eaton, R., Bloor, J. W., Robinson, G. K., Levin, L. R., Buck, J., Wang, Y., Gow, N. A. R., Steegborn, C., & Mühlischlegel, F. A. 2010. CO₂ Acts as A Signalling Molecule in Populations of The Fungal Pathogen *Candida Albicans*. *PLoS Pathogens*, 6(11).
- Handoko, E., & Sumilat, W.A. 2011. Metabolisme Hidrogen Peroksida dan Peranannya pada Infeksi Telinga. *Laboratorium Ilmu Penyakit Telinga Hidung Tenggorokan FK UB*, 1:1-14.
- Haryoto, Muhtadi, Indrayudha, P., Azizah, T., Suhendi, A., & Haryoto, Muhtadi, Peni Indrayudha, Tanti Azizah, A. S. 2013. Aktivitas Sitotoksik Ekstrak Etanol Tumbuhan Sala (*Cynometra ramiflora* Linn) Terhadap Sel HeLa,

T47D dan WiDR. *Jurnal Penelitian Saintek*, 18:21–28.

- Hernandez-Segura, A., de Jong TV., Melov, S., Guryev, V., Campisi, J., & Demaria, M. 2017. Unmasking Transcriptional Heterogeneity In Senescent Cells. *Curr Biol*. 27:2652-2660.e2654.
- Hoang, V.T., Stepniewski, G., Czarnecka, K.H., Kasztelan, R., Long, V.C., Xuan, K.D., Shao, L., Smietana, M., & Buczynski, R. 2019. Optical Properties of Buffers and Cell Culture Media for Optofluidic and Sensing Applications. *Applied Sciences*, 9(1145): 1-11
- Höhn, A., Weber, D., Jung, T., Ott, C., Hugo, M., Kochlik, B., Kehm, R., König, J., Grune, T., & Castro, J.P. 2017. Happily (n)ever after: Aging in the Context Of Oxidative Stress, Proteostasis Loss And Cellular Senescence. *Redox Biol*, 11: 482–501.
- Istanti, A., & Triasih, D. 2021. Respon Pertumbuhan dan Hasil Padi Hitam (*Oryza sativa* L) Lokal Banyuwangi terhadap Aplikasi Beberapa Jenis Pupuk Kandang. *Agriprima : Journal of Applied Agricultural Sciences*, 5(1): 25–33.
- Jang, H.H., Park, M.Y., Kim, H.W., Lee, Y.M., Hwang, K.A., Park, J.H., Park, D.S., & Kwon, O. 2012. Black rice (*Oryza sativa* L.) Extract Attenuates Hepatic Steatosis in C57BL/6 J Mice Fed A High-Fat Diet Via Fatty Acid Oxidation. *Nutrition dan metabolisme*, 9(1): 1–11.
- Jung, D.S. & Eun, J.B. 2003. Rheological Properties of Dough Added with Black Rice Flour. *Korean J. Food Sci. Technol*, 35:38-45.
- Kalpanadevi, C, Singh, V., & Subramanian, R. 2018. Influence Of Milling On The Nutritional Composition Of Bran From Different Rice Varieties. *Journal of Food Science and Technology*, 55(6): 2259– 2269.
- Kemit, N., Widarta, I. W. R., & Nocianitri, K. A. 2016. Pengaruh Jenis Pelarut dan Waktu Maserasi Terhadap Kandungan Senyawa Flavonoid dan Aktivitas Antioksidan Ekstrak Daun Alpukat (*Persea Americana Mill*). *Jurnal Ilmu Teknologi Pangan*, 5(2): 130–141.
- Kim, J. H., & Lee, S. J. 2019. Effects of H₂O₂ Exposure On The Morphology Of Human Dermal Fibroblasts. *Cellular Biology Journal*, 36(2), 87-95.
- Kiyoshima, T., Enoki, N., Kobayashi, I., Sakai, T., Nagata, K., Wada, H., Fujiwara,

- H., Ookuma, Y., & Sakai, H. 2012. Oxidative Stress Caused by A Low Concentration of Hydrogen Peroxide Induces Senescence-Like Changes in Mouse Gingival Fibroblasts. *International Journal of Molecular Medicine*, 30(5): 1007–1012.
- Kohen, R., & Nyska, A. 2002. Invited review Oxidation of Biological Systems: Oxidative Stress Phenomena, Antioxidants, Redox Reactions, and Methods for Their Quantification. *Toxicol Pathol*;30(6):620–50.
- Komariah, K., Priscilla, C., Wahyudi, R., Trisfilha, P., & Nugroho, D. 2023. Penurunan Produksi Reactive Oxygen Species (ROS) Fibroblas dengan Nano Kitosan Kumbang Tanduk (*Xylotrupes gideon*). *Jurnal Pharmascience*, 10(1):165.
- Kong, S., Kim, D. J., Oh, S. K., Choi, I. S., Jeong, H. S., & Lee, J. 2012. Black Rice Bran as an Ingredient in Noodles: Chemical and Functional Evaluation. *Journal of Food Science*, 77(3).
- Kunia, E.W., & Holil, K. 2012. Efek Vitamin C Dalam Medium Dmem Terhadap Pertumbuhan Sel Paru-Paru Fetus Hamster Secara in Vitro. *El-Hayah*, 3(1):1–7.
- Kurashina, Y., Imashiro, C., Hirano, M., Kuribara, T., Totani, K., Ohnuma, K., Friend, J., & Takemura, K. 2019. Enzyme-free Release of Adhered Cells From Standard Culture Dishes using Intermittent Ultrasonic Traveling Waves. *Communications Biology*, 1-11.
- Kurniawati, A. 2017. Pengaruh Jenis Pelarut Pada Proses Ekstraksi Bunga Mawar Dengan Metode Maserasi Sebagai Aroma Parfum. *Journal of Creativity Student*, 2(2):74–83.
- Kurniawati, Y., Adi, S., Achadiyani, Suwarsana, O., Erlangga, D., & Putri, T. 2015. Kultur Primer Fibroblas: Penelitian Pendahuluan. *MKA*. 38(1): 33-40.
- Kurutas, E. B. 2016. The Importance of Antioxidants Which Play The Role In Cellular Response Against Oxidative/Nitrosative Stress: Current state. *Nutrition Journal*, 15(1): 1–22.
- Kushwaha, U. K. S. 2016. *Black Rice: Research, History and Development*. Springer International Publishing Switzerland. Switzerland.
- Lee, Ho-Hoon, Hong-Yeol Kim, Hee-Jong Koh, & Su-Noh Ryu. 2006. Varietal

- Difference of Chemical Composition in Pigmented Rice Varieties. *Korean J. Crop Sci.*, 51(S):113-118.
- Lennicke, C., Rahn, J., Lichtenfels, R., Wessjohann, L.A., Seliger, B. 2015. Hydrogen Peroxide–Production, Fate and Role In Redox Signaling Of Tumor Cells. *Cell Commun. Signal*, 13: 39.
- Liao, Z., Yeo, H. L., Wong, S. W., & Zhao, Y. 2021. Cellular Senescence: Mechanisms and Therapeutic Potential. *Biomedicines*, 9(12).
- Li, X. 2016. Potentiation of Hydrogen Peroxide Toxicity. *Physiology dan Behavior*, 176(3): 139–148.
- Li, Z., Zhang, Z., Ren, Y., Wang, Y., Fang, J., Ma, J. F. Á. S., & Guan, Á. F. 2021. Aging and Age-Related Diseases : From Mechanisms To Therapeutic Strategies. *Biogerontology*, 22(2): 165–187.
- López-Otín, C., Blasco, M.A., Partridge L., Serrano M, Kroemer G. 2013. The Hallmarks of Aging. *Cell*, 153: 1194–1217.
- Mahaseth, T.; Kuzminov, A. 2017. Potentiation Of Hydrogen Peroxide Toxicity: From Catalase Inhibition to Stable DNA-Iron Complexes. *Mutat*, 773: 274–281.
- Martinez-Ortiz, M.A., Hemandez-Fuentes, A.D., Diana, J., Pimentel-Gonzalez, Rafael G., Campos-Mpntiel, Vargas-Tores, A., & Aguirre-Alvarez, G. 2015. Extraction and Characterization Of Collagen From Rabbit Skin: Partial Characterization. *Journal of Food*, 13(2): 253-258.
- Mchugh, D., & amsGil, J. 2018. Senescence and Aging : Causes, Consequences, and Therapeutic Avenues. *The Journal of Cell Biology*, 217(1):65–77.
- Muawanah, M., Afiah, N., & Mashudi, E. 2020. Penetapan Kadar Hidrogen Peroksida (H₂O₂) Pada Tahu Dengan Metode Permanganometri. *Jurnal Medika*, 5(2): 9–13.
- Mukhtarini. 2011. Ekstraksi, Pemisahan Senyawa, dan Identifikasi Senyawa Aktif. *Jurnal of Pharmacy*, 7(2):361.
- Murlistyarini, S., & Dani, A. A. 2022. Peran Matriks Metaloproteinase (MMP) pada Proses Photoaging. *Journal of Dermatology, Venereology and Aesthetic*, 3(1):13–22.
- Naylor, R.M., Baker, D.J., van Deursen, J.M. 2013. Senescent cells: a Novel

- Therapeutic Target For Aging And Age-Related Diseases. *Clin Pharmacol Ther.* 93(1):105-160.
- Nindl, G., Peterson, N.R., Hughes, E.F., Waite, L.R., Johnson, M.T. 2004. Effect of Hydrogen Peroxide On Proliferation, Apoptosis And Interleukin-2 Production Of Jurkat T Cells. *Biomed Sci Instrum*, 40(123): 1-8.
- Ono, R., Yasuhiko, Y., Aisaki, K. ichi, Kitajima, S., Kanno, J., & Hirabayashi, Y. 2019. Exosome-Mediated Horizontal Gene Transfer Occurs In Double-Strand Break Repair During Genome Editing. *Communications Biology*, 2(1).
- Pang, Y., Ahmed, S., Xu, Y., Beta, T., Zhu, Z., Shao, Y., & Bao, J. 2018. Bound Phenolic Compounds And Antioxidant Properties Of Whole Grain And Bran Of White, Red And Black Rice. *Food Chemistry*, 240(1):212–221.
- Park, Y. M., Lee, H. Y., Shin, D. Y., Lee, Y. H., Yang, Y. J., Lee, H. S., Lee, J. O., Choi, K. S., Kang, J. H., Cho, Y. H., Kim, M. G., Yun, C. Y., Kim, M. J., Jang, D. J., Yang, H. J., & Lee, Y. R. 2020. Immunostimulatory Activity of Black Rice Bran in Cyclophosphamide-Induced Immunosuppressed Rats. *Natural Product Communications*, 15(7).
- Pengkumsri, N., Chaiyasut, C., Saenjurn, C., Sirilun, S., Peerajan, S., Suwannalert, P., & Sivamaruthi, B. S. 2015. Physicochemical and Antioxidative Properties Of Black, Brown And Red Rice Varieties Of Northern Thailand. *Food Science and Technology*, 35(2): 331–338.
- Phaniendra, A., Jestadi, D. B., & Periyasamy, L. 2015. Free Radicals: Properties, Sources, Targets, and Their Implication in Various Diseases. *Indian Journal of Clinical Biochemistry*, 30(1):11–26.
- Pieykowska, N., Bartosz, G., Pichla, M., Grzesik-pietrasiewicz, M., & Gruchala, M. 2020. Pengaruh Antioksidan Pada Penuaan Dini Fibroblas Manusia Yang Disebabkan oleh H₂O₂. 2:1910–1927.
- Pizzino, G., Irrera, N., Cucinotta, M., Pallio, G., Mannino, F., Arcoraci, V., Squadrito, F., Altavilla, D., & Bitto, A. 2017. Oxidative Stress: Harms and Benefits for Human Health. *Oxidative Medicine and Cellular Longevity*, 1-13.
- Poljsak B. 2011. Strategies for Reducing Or Preventing The Generation Of

Oxidative Stress. Oxidative Medicine and Cellular Longevity.

- Princilly, J., Veerabhadrapa, B., Rao, N. N., & Dyavaiah, M. 2023. Cellular Senescence In Aging: Molecular Basis, Implications, and Therapeutic Interventions. *Advances in Protein Chemistry and Structural Biology*, 136 : 1-33.
- Puspa Yani, N. K. L., Nastiti, K., & Noval, N. 2023. Pengaruh Perbedaan Jenis Pelarut Terhadap Kadar Flavonoid Total Ekstrak Daun Sirsak (*Annona muricata* L.). *Jurnal Surya Medika*, 9(1): 34–44.
- Rahimi, A. M., Cai, M., & Hoyer-Fender, S. 2022. Heterogeneity of the NIH3T3 Fibroblast Cell Line. *Cells*, 11(17).
- Rani S, Ritter T. 2015. The Exosome -A Naturally Secreted Nanoparticle and its Application to Wound Healing. *Adv Mater*, 28(27):1–11.
- Rifai, G., Rai Widarta, I. W., & Nocianitri, A.K. 2018. Pengaruh Jenis Pelarut Dan Rasio Bahan Dengan Pelarut Terhadap Kandungan Senyawa Fenolik Dan Aktivitas Antioksidan Ekstrak Biji Alpukat (*Persea Americana* Mill.). *Jurnal Ilmu Dan Teknologi Pangan (ITEPA)*, 7(2): 22.
- Rini, Y. C., Susilowati, F., & Amal, A. S. S. 2020. Uji Aktivitas Antioksidan Ekstrak Etanol dan Ekstrak Air Biji Habbatussauda' (*Nigella sativa*). *Pharmaceutical Journal of Islamic Pharmacy*, 4(1).
- Rizqi, J., & Amestiasih, T. 2020. Pengaruh Kombinasi Madu dan Lidah Buaya (*Aloe vera*) Terhadap Proliferrasi pada Sel Line Fibroblast NIH3T3: Studi In Vitro. *Seminar Nasional UNRIYO*, 535–541.
- Rohanova, D., Boccaccini, A.R., Horkavcova, D., Bozdechova, P., Bezdictka, P., Castoralova, M. 2014. Is Non-buffered DMEM Solution A Suitable Medium Fot In Vitro Bioactivity Tests?. *Journal of Materials Chemistry B*, 2: 5068- 5076.
- Rollando. 2016. Aktivitas Sitotoksik Ekstrak Dan Fraksi Hasil Fermentasi Fungi Endofit Genus *Cephalosporium* sp. diisolasi dari Daun Meniran (*Phyllanthus niruri* Linn.). *Jurnal Wiyata*, 3(1): 5-11.
- Sa'adah, I. R., Supriyanta, & Subejo. 2013. Keragaman Warna Gabah dan Warna Beras Varietas Lokal Padi Beras Hitam (*Oryza sativa* L.) yang Dibudidayakan oleh Petani Kabupaten Sleman, Bantul, dan Magelang.

Vegetalika, 2(3):13–20.

- Saichudin. 2014. Stres Oksidatif Pemicu Utama Kematian Sel Purkinje Otak Kecil (Cerebellum). *Jurnal Sport Science*, 4(1) : 5-11.
- Salama, R., Sadaie, M., Hoare, M., Narita, M. 2014. Cellular Senescence and Its Effector Programs. *Genes Dev*, 28:99–114.
- Sandra, F., & Lahirin, R. 2017. Human Umbilical Cord Blood Serum Has Higher Potential in Inducing Proliferation of Fibroblast than Fetal Bovine Serum. *Molecular and Cellular Biomedical Sciences*, 1(2): 65.
- Sayekti, F.D.J., & Qurrohman, M.T. 2018. Aktivitas Antiangiogenesis Ekstrak Beras Hitam (*Oryza sativa* L. indica) pada Chorionallantoic Membrane (Cam) Sebagai Kandidat Antikanker. *Indonesian Journal of Applied Sciences*, 8(1): 7–9.
- Schöttker B, Brenner H, Jansen E, Gardiner J, Peasey A, Kubinova R. 2015. Evidence for The Free Radical/Oxidative Stress Theory Of Ageing from the CHANCES Consortium: A Meta-Analysis Of Individual Participant Data. *BMC Medicine*, 13:300
- Shin, J., Kwon, S., Choi, J., Na, J., Huh, C.2019. Molecular Mechanisms of Dermal Aging and Antiaging Approaches. *Int J Mol Sci*, 20(9).
- Sies, H. 2014. Role of Metabolic H₂O₂ Generation: Redox Signaling And Oxidative Stress. *J. Biol. Chem*, 289:8735–8741.
- Sinaga, F. A. 2016. Stress oksidatif dan Status Antioksidan pada Aktivitas Fisik Maksimal. *Jurnal Generasi Kampus*, 9(2): 176–189.
- Singh, M., McKenzie, K., & Ma, X. 2017. Effect of Dimethyl Sulfoxide On In Vitro Proliferation Of Skin Fibroblast Cells. *Journal of Biotech Research*, 8: 78-82.
- Socas-Rodríguez, B., Torres-Cornejo, M. V., Álvarez-Rivera, G., & Mendiola, J. A. 2021. Deep Eutectic Solvents For The Extraction Of Bioactive Compounds From Natural Sources And Agricultural By-Products. *Applied Sciences (Switzerland)*, 11(11).
- Sofian, L., Aryana, I. G. P. M., & Kisman, K. 2019. Appearance of Some Black Rice Genotype (*Oryza Sativa* L.) In Two Type of Agroecosystems in the

- Dried Land of Central Lombok District. *International Journal of Multicultural and Multireligious Understanding*, 6(5):742.
- Sompong, R., Siebenhandl-Ehn, S., Linsberger-Martin, G., & Berghofer, E. 2011. Physicochemical and Antioxidative Properties Of Red And Black Rice Varieties from Thailand, China and Sri Lanka. *Food Chemistry*, 124(1): 132–140.
- Sotler, R., Poljšak, B., Dahmane, R., Jukić, T., Pavan Jukić, D., Rotim, C., Trebše, P., & Starc, A. 2019. Prooxidant Activities of Antioxidants and Their Impact on Health. *Acta Clinica Croatica*, 58(4): 726–736.
- Suardi, D., & Ridwan, I. 2009. Beras Hitam, Pangan Berkhasiat yang Belum Populer. *Warta Penelitian Dan Pengembangan Pertanian*, 31(2): 9–10.
- Thuwajit C, Thuwajit P, Kaewkes S. 2004. Increased Cell Proliferation Of Mouse Fibroblast NIH-3T3 In Vitro Induced By Excretory/Secretory Product(S) From *Opisthorchis Viverrini*. *Parasitology*. 129(4):455-464.
- Vierkötter, A & Krutmann, J. 2012. Environmental Influences On Skin Aging And Ethnic-Specific Manifestations. *Dermato-endocrinology*, 4(3):227-231.
- Wang, C.H., Wu, S.B., Wu, Y.T., & Wei, Y.H. 2013. Oxidative Stress Response Elicited by Mitochondrial Dysfunction: Implication In The Pathophysiology Of Aging. *Experimental Biology and Medicine*, 238:450-60
- Wang, H. 2021. A Review Of The Effects Of Collagen Treatment In Clinical Studies. *Polymers*, 13(22).
- Wiranatha, I.G., & Aryasih, I.G.P. DA. 2014. Pengaruh Lama Kontak Hidrogen PeroksidA terhadap Keluhan Subyektif Pengrajin Lontar. *Jurnal Kesehatan Lingkungan*, 4(1):61–69.
- Yeni, G., Syamsu, K., Mardiyati, E., & Muchtar, H. 2017. Penentuan Teknologi Proses Pembuatan Gambir Murni dan Katekin Terstandar dari Gambir Asalan. *Jurnal Litbang Industri*, 7(1): 1-10.
- Yi, Q., Wong, A., & Chew, F. T. 2021. Defining Skin Aging And Its Risk Factors : A Systematic Review And Meta - Analysis. *Scientific Reports*, 11(22075):1–13.
- Yulianti, W., Ayuningtyas, G., Martini, R., & Resmeiliana, I. 2021. Pengaruh Metode Ekstraksi Dan Polaritas Pelarut Terhadap Kadar Fenolik Total Daun

- Kersen (*Muntingia calabura* L). Jurnal Sains Terapan, 10(2): 41–49.
- Vilema-Enríquez, G., Arroyo, A., Grijalva, M., Amador-Zafra, R. I., & Camacho, J. 2016. Molecular and Cellular Effects Of Hydrogen Peroxide On Human Lung Cancer Cells: Potential Therapeutic Implications. *Oxidative Medicine and Cellular Longevity*.
- Zalukhu, M. L., Phyma, A. R., & Pinzon, R. T. 2016. Proses Menua , Stres Oksidatif , dan Peran Antioksidan. 43(10): 733–736.
- Zahroh, F., & Agustini, R. 2021. Penentuan Kandungan Total Antosianin Yeast Beras Hitam (*Oryza sativa* L. Indica) Menggunakan Metode Ph Differensial. *Unesa Journal of Chemistry*, 10(2): 200–208.
- Zhang, Q. W., Lin, L. G., & Ye, W. C. 2018. Techniques for Extraction And Isolation Of Natural Products: A comprehensive review. *Chinese Medicine (United Kingdom)*, 13(1):1–26.
- Zouboulis, C. C., & Makrantonaki, E. 2011. Clinical Aspects And Molecular Diagnostics Of Skin Aging. *Clinics in dermatology*, 29(1): 3-14.