

DAFTAR PUSTAKA

- Abdellah, M., H. Ahene, Y. Benalia, B. Saad, and B. Abdelmalek. 2014. Screening for exopolysaccharide-producing strains of thermophilic lactic acid bacteria isolated from Algerian raw camel milk. *African Journal of Microbiology Research*, 8(22):2208-2214.
- Abdhul, K., M. Ganesh, S. Shanmughapriya, M. Kanagavel, K. Anbarasu, and K. Natarajaseenivasan. 2014. Antioxidant activity of exopolysaccharide from probiotic strain *Enterococcus faecium* (BDU7) from Ngari. *International Journal of Biological Macromolecules*, 70:450-454.
- Abriba, C., E. Henshaw, J. Lenox, M. Eja, I. Ikpoh, and B. Agbor. 2012. Microbial succession and odour reduction during the controlled fermentation of cassava tubers for the production of “foofoo”, a staple food consumed popularly in Nigeria. *Journal of Microbiology and Biotechnology Research*, 2(4):500–506.
- Adewusi, S. and J. Bradbury. 1993. Carotenoids in cassava: comparison of open-column and HPLC methods of analysis. *Journal of The Science of Food and Agriculture*, 62:375-383.
- Adeyemi O., D. Eruvbetine, T. Oguntona, M. Dipeolu, and J. Agunbiade. 2004. Improvement in the crude protein value of whole cassava root meal by rumen filtrate fermentation. In: Tukur H., W. Hassan, S. Maigandi, J. Ipinjolu, A. Danejo, K. Baba, et al., editors. Sustaining livestock production under changing economic fortunes. *Proceedings 29th Annual Conference. Nigerian Society of Animal Production (NSAP)*. Pp. 1-5.
- Adeyemi, O. and B. Sipe. 2004. In vitro improvement in the nutritional composition of whole cassava root-meal by rumen filtrate fermentation. *Indian Journal of Animal Science*, 74:321-323.
- Adebayo C and B. Aderiye. 2010. Antifungal activity of bacteriocins of lactic acid bacteria from some Nigerian fermented foods. *Research Journal of Microbiology* 5(11):1070–1082
- Agustini, N. 2017. Potency of endo-exopolysaccharide from *Porphyridium cruentum* (S.F.Gray) nägeli as antioxidant (DPPH) and biological toxicity (BSLT). *KnE Life Sciences*, 3:147.
- Alayande, A., M. Aung, and I. Kim. 2018. Correlation between quorum sensing signal molecules and *Pseudomonas aeruginosa*'s biofilm development and virulency. *Current Microbiology*, 7, 787–793.
- Altschul, S. and B. Erickson. 1986. Optimal sequence alignment using affine gap costs. *Bulletin of Mathematical Biology*, 48 (1986):603–616.
- Alves A. and T. Setter. 2000. Response of cassava to water deficit: leaf area growth and abscisic acid. *Crop Science*, 40:131-137.
- Aman, A., N. Siddiqui, and S. Qader. 2012. Characterization and potential applications of high molecular weight dextran produced by *Leuconostoc mesenteroides* AA1. *Carbohydrate Polymers*, 87:910–915.

- Amr, S. and B. Funke. 2015. *Clinical Genomics*. Chapter 16 – Targeted Hybrid Capture for Inherited Disease Panels. Academic Press, pp. 251-269.
- Anbudhasan, P., A. Surendraraj, S. Karkuzhali, P. Sathishkumaran, Natural anti oxidants and its benefits, *International Journal of Nutrition and Food Science*, 3.
- Andrew, M. and G. Jayaraman. 2020. Structural features of microbial exopolysaccharides in relation to their antioxidant activity. *Carbohydrate Research*, 487:107881.
- Antai, S. and P. Mbongo. 1994. Utilization of cassava peels as substrate for crude protein formation. *Plant Food for Human Nutrition*, 46:345-351.
- Anwar, M., S. Kralj, A. Piqué, H. Leemhuis, M. Van Der Maarel, M, and L. Dijkhuizen. 2010. Inulin and levan synthesis by probiotic *Lactobacillus gasseri* strains: Characterization of three novel fructansucrase enzymes and their fructan products. *Microbiology*, 156: 1264–1274.
- Arendt, E., A. Moroni, and E. Zannini. 2011. Medical nutrition therapy: use of sourdough lactic acid bacteria as a cell factory for delivering functional biomolecules and food ingredients in gluten free bread. *Microb Cell Factories Suppl*, 1:S15
- Awad, S., A. Hassan, and F. Halaweish. 2005. Application of exopolysaccharide producing cultures in reduced-fat Cheddar cheese: composition and proteolysis. *Journal of Dairy Science*, 88:4195–4203.
- Awwaly, K. and A. Manab. 2007. Seleksi Bakteri Asam Laktat Penghasil Eksopolisakarida. *Jurnal Ternak Tropika*, 6(2):79-87.
- Ayyash, M., C. Stathopoulos, B. Abu-Jdayil, G. Esposito, M. Baig, M. Turner, A. Baba, V. Apostolopoulos, A. Al-Nabulsi, and T. Osaili. 2020. Exopolysaccharide produced by potential probiotic *Enterococcus faecium* MS79: Characterization, bioactivities and rheological properties influenced by salt and pH. *LWT – Food Science and Technology*, 131: 109741.
- Axelsson, L. 2004. Lactic acid bacteria: classification and physiology. In: Salminen S, von Wright A, eds. *Lactic acid bacteria: microbiological and functional aspects*. Second edition. New York: Marcel Dekker, 1–66.
- Balzaretti, S., V. Taverniti, S. Guglielmetti, W. Fiore, M. Minuzzo, H. Ngo, *et al.* 2017. A novel rhamnose-rich hetero-exopolysaccharide isolated from *Lactobacillus paracasei* DG activates THP-1 human monocytic cells. *Applied and Environmental Microbiology*, 83(3) : 2702–2716.
- Baron, E. 1996. *Medical Microbiology*. 4th edition. Galveston. University of Texas Medical Branch.
- BeMiller, J. 2003. *Encyclopedia of Food Sciences and Nutrition* 2nd ed. Academic Press. USA, Pp. 1772-1773.
- Bengoa, A., M. Llamas, C. Iraporda, M. Dueñas, A. Abraham, and G. Garrote. 2018. Impact of growth temperature on exopolysaccharide production and probiotic properties of *Lactobacillus paracasei* strains isolated from kefir grains. *Food Microbiology*, 69, 212–218.
- Bhat, N. and B. Bajaj. 2018. Hypocholesterolemic and bioactive potential of exopolysaccharide from a probiotic *Enterococcus faecium* K1 isolated from *kalarei*. *Bioresource Technology*, 254:264-267.

- Bhavani, A. and J. Nisha. 2010. Dextran: the polysaccharide with versatile uses. *International Journal of Pharma and Bioscience*, 1:569–573
- Boels, I., K. Rvan, J. Hugenholtz, M. Kleerebezem, and V. Wmde. 2001. Sugar catabolism and its impact on the biosynthesis and engineering of exopolysaccharide production in lactic acid bacteria. *International Dairy Journal*, 11(9), 723–732.
- Brandt, M., K. Roth, and W. Hammes. 2003. Effect of an exopolysaccharide produced by *Lactobacillus sanfranciscensis* LTH1729 on dough and bread quality. In: *de Vyust L (ed) Sourdough from fundamentals to application*. Vrije Universiteit, Brussels, p. 80
- Buitrago, J., B. Ospina, J. Gil, and H. Aparicio. 2002. *Cassava root and leaf meals as the main ingredients in poultry feeding: some experiences in Columbia*. Centro Internacional de Agricultura Tropical (CIAT), Cassava Office for Asia. Pp. 523-541.
- Caggianiello, G., M. Kleerebezem, and G. Spano. 2016. Exopolysaccharides produced by lactic acid bacteria: From health-promoting benefits to stress tolerance mechanisms. *Applied Microbiology and Biotechnology*, 100(9):3877–3886.
- Cantarel, B., P. Coutinho, C. Rancurel, T. Bernard, V. Lombard, and B. Henrissat. 2009. The Carbohydrate-Active EnZymes database (CAZy): an expert resource for glycogenomics. *Nucleic Acids Research*, 37:D233–D238
- Cole, J., Q. Wang, E. Cardenas, J. Fish, and B. Chai. 2009. The Ribosomal Database Project: improved alignments and new tools for rRNA analysis. *Nucleic Acids Research*, 37: 141–145.
- Côté, G. L., and C. Skory. 2012. Cloning, expression, and characterization of an insoluble glucan-producing glucansucrase from *Leuconostoc mesenteroides* NRRL B-1118. *Applied Microbiology and Biotechnology*, 93:2387–2394.
- Cote, G., C. Skory, S. Unser, and J. Rich. 2012. The production of glucans via glucansucrases from *Lactobacillus satsumensis* isolated from a fermented beverage starter culture. *Applied Microbiology and Biotechnology*, 97:7265–7263
- Crossley, B., J. Bai, A. Glaser, R. Maes, E. Porter, M. Killian, T. Clement, and K. Toohey-Kurth. 2020. Guidelines for Sanger sequencing and molecular assay monitoring. *Journal of Veterinary Diagnostic Investigation*, 32(6):767-775.
- Gupta, P., and B. Diwan. 2017. Bacterial exopolysaccharide mediated heavy metal removal: A review on biosynthesis, mechanism and remediation strategies. *Biotechnology Reports*, 13(C), 58–71.
- Das, D. and A. Goyal. 2014. Characterization and biocompatibility of glucan: a safe food additive from probiotic *Lactobacillus plantarum* DM5. *Journal of the Science of Food and Agriculture*, 94:683–690.
- Das, D., R. Baruah, and A. Goyal. 2014. A food additive with prebiotic properties of an a-D-glucan from *Lactobacillus plantarum* DM5. *International Journal of Biological Macromolecules*, 69:20–26.
- DeSantis, T., P. Hugenholtz, N. Larsen, M. Rojas, and E. Brodie. 2006. Greengenes, a chimera-checked 16S rRNA gene database and workbench compatible with ARB. *Applied Environmental Microbiology*, 72: 5069–5072.

- Dixon, J. 1982. Cassava in Indonesia: its Economic Role and Use as Food. *Contemporary Southeast Asia*, 3(4): 361-373.
- Drancourt, M., C. Bollet, A. Carlouz, R. Martelin, J. Gayral, and D. Raoult. 2000. 16S ribosomal DNA sequence analysis of a large collection of environmental and clinical unidentifiable bacterial isolates. *Journal of Clinical Microbiology*, 38:3623–3630.
- Du, B., Y. Yang, Z. Bian, and B. Xu. 2017. Molecular weight and helix conformation determine intestinal anti-inflammatory effects of exopolysaccharide from *Schizophyllum commune*. *Carbohydrate Polymers*, 172, 68–77.
- Dwivedi, B. and S. Gadagkar. 2009. Phylogenetic inference under varying proportions of indel-induced alignment gaps. *BMC Evolutionary Biology*, 9:211.
- Eerlingen, R. and J. Delcour. 1995. Formation, analysis, structure and properties of type III enzyme resistant starch. *Journal of Cereal Science*, 22:129-138.
- Egena, S. 2006. Effect of different hydrocyanic acid consumption on nutrient digestibility in broilers fed cassava flour meal. In: *Proceedings of 11th Annual Conference of Animal Science of Nigeria (ASAN)*. September 18-21. Nigeria: I. A.R. & T. Ibadan; 2006. Pp. 153-155.
- Elmogahzy, Y. 2020. *Engineering Textiles (Second Edition) Integrating the Design and Manufacture of Textile Products*. Elsevier. Pp. 275-298.
- El-Sharkawy, M. 2003 Cassava biology and physiology. *Plant Molecular Biology*, 53:621-641.
- Eruvbetine, D., I. Tajudeen, A. Adeosun, and A. Olojede. 2003. Cassava (*Manihot esculenta*) leaf and tuber concentrate in diets for broiler chickens. *Bioresource Technology*, 86:277-281
- Fanning, S., L. Hall, M. Cronin, A. Zomer, J. Macsharry, and D. Goulding. 2012. Bifidobacterial surface-exopolysaccharide facilitates commensal-host interaction through immune modulation and pathogen protection. *Proceedings of the National Academy of Sciences of the United States of America*, 109(6):2108–2113.
- FAO, 1997. Feeding Pigs in the Tropics. FAO Animal Production and Health Paper 132. Rome. Retrieved from: <http://www.fao.org/docrep/003/w3647e/W3647E05.htm#ch5> (accessed 11.05.16.).
- FAO. 2010. FAOSTAT. (<http://faostat.fao.org/>)
- FAO, 2013. Save and Grow: Cassava. Food and Agriculture Organization for United Nations, Rome.
- Fathiya, N., E. Harnelly, Z. Thomy, and Iqbar. 2018. Molecular Identification of *Shorea jorensis* in Ketambe Research Station, Gunung Leuser National Park. *Jurnal Natural*, 18(2):56-64.
- Galle, S., C. Schwab, E. Arendt, and M. Ganzle. 2010. Exopolysaccharide forming *Weissella* strains as starter cultures for sorghum and wheat sourdoughs. *Journal of Agricultural and Food Chemistry*, 58:5834–5841
- Galle, S., C. Schwab, F. Dal Bello, A. Coffey, M. Ganzle, and E. Arendt. 2012. Influence of *in situ* synthesized exopolysaccharides on the quality of gluten-free sorghum sourdough bread. *International Journal of Food Microbiology*, 155:105–112

- Garai-Ibabe, G., M. Dueñas, A. Irastorza, E. Sierra-Filardi, M. Werning, P. López. 2010. Naturally occurring 2-substituted (1,3)- β -D-glucan producing *Lactobacillus suebicus* and *Pediococcus parvulus* strains with potential utility in the production of functional foods. *Bioresource Technology*, 101(23), 9254–9263.
- Garcia M and N. Dale. 1999. Cassava root meal for poultry. *Journal of Applied Poultry Research*, 8:132-137.
- Giles-Gomez, M., J. Garcia, V. Matus, I. Quintana, F. Bolivar, and A. Escalante. 2016. In vitro and in vivo probiotic assessment of *Leuconostoc mesenteroides* P45 isolated from *pulque*, a Mexican traditional alcoholic beverage. *SpringerPlus*, 5:708.
- Goggins, M. and D. Kelleher. 1994. Celiac disease and other nutrient related injuries to the gastrointestinal tract. *The American Journal of Gastroenterology*, 89:2–17
- Gomes, E., S. Souza, R. Grandi, and R. Silva. 2005. Production of thermostable glucoamylase by newly isolated *Aspergillus flavus* A1.1 and thermomyces *Lanuginosus* A13.37. *Brazilian Journal of Microbiology*, 36:75-82.
- Guclu, G., H. Kelebek, and S. Selli. 2021. *Olives and Olive Oil in Health and Disease Prevention (Second Edition)*. New York: Academic Press. Pp. 313-325.
- Guo, Y., D. Pan, H. Li, Y. Sun, X. Zeng, and B. Yan. 2015. Antioxidant and immunomodulatory activity of selenium exopolysaccharide produced by *Lactococcus lactis* subsp. *lactis*. *Food Chemistry*, 26(2), 248–259.
- Gupta, P. and B. Diwan. 2017. Bacterial Exopolysaccharide mediated heavy metal removal: A Review on biosynthesis, mechanism and remediation strategies. *Biotechnology Reports*, 13:58-71.
- Gutowski, M. and S. Kowalczyk. 2013. A study of free radical chemistry: their role and pathophysiological significance, *Acta Biochimica Polonica*, 60:1–16.
- Hager, A. and E. Arendt. 2013. Influence of hydroxypropyl methylcellulose (HPMC), xanthan gum and their combination on loaf specific volume, crumb hardness and crumb grain characteristics of gluten-free bread. *Food Hydrocolloids*, 32:195–203
- Hehre, E. 1941. Production from sucrose of a serologically reactive polysaccharide by a sterile bacterial extract. *Science*, 93:237–238
- Hillis, D. and J. Bull. 1993. An Empirical Test of Bootstrapping as a Method for Assessing Confidence in Phylogenetic Analysis. *Systematic Biology*, 42(2):182-192.
- Hu, G., S. Fu, H. Liu, and L. Lucia. 2015. Adsorption of cationized eucalyptus heteropolysaccharides onto chemical and mechanical pulp fibers. *Carbohydrate Polymers*, 123, 324–330.
- Hudson, J. and A. Ogunsua. 1974. Lipids of cassava tubers (*Manihot esculenta* Crantz). *Journal of the Science of Food and Agriculture*, 25(12):1503-1508.
- Indira, M., T. Venkateswarulu, K. Prabhakar, K. Peele, S. Krupanidhi. 2018. Isolation and characterization of bacteriocin producing *Enterococcus casseliflavus* and its antagonistic effect on *Pseudomonas aeruginosa*. *Karbala International Journal of Modern Science*, 4(4):361-368.

- Ito, K., S. Ito, T. Shimamura, S. Weyand, Y. Kawarasaki, T. Misaka, K. Abe, T. Kobayashi, A. Cameron, and S. Iwata. 2011. Crystal structure of glucansucrase from the dental caries pathogen *Streptococcus mutans*. *Journal of Molecular Biology*, 408:177–186
- Janda, M. and S. Abbott. 2011. 16S rRNA Gene Sequencing for Bacterial Identification in the Diagnostic Laboratory: Pluses, Perils, and Pitfalls. *Journal of Clinical Microbiology*, 45(9):2761-2764.
- Jaric, M., J. Segal, E. Silva-Herzog, L. Schneper, K. Mathee, and G. Narasimhan. 2013. Better primer design for metagenomics applications by increasing taxonomic distinguishability. *BMC Proceedings*, 7(Suppl 7):S4.
- Jeanes A. Dextran. 1965. *Whistler RL ed. Methods in Carbohydrate Chemistry Vol V*. New York: Academic Press. Pp. 118-127.
- Kareem, A. and J. Salman. 2019. Production of Dextran from Locally Lactobacillus Spp. Isolates. *Reports of Biochemistry & Molecular Biology*, 8(3): 279-286.
- Katina, K., N. Maina, R. Juvonen, L. Flander, L. Johansson, L. Virkki, M. Tenkanen, and A. Laitila. 2009. In situ production and analysis of *Weissella confusa* dextran in wheat sourdough. *Food Microbiology*, 26:734–743
- Khajarearn, S. and J. Khajarearn. 2007. Use of cassava products in poultry feeding: roots, tubers, plantains and bananas in animal feeding. <http://www.fao.org/DOCREP/003/T0554E/T0554E10.htm> [accessed 22.10.15]
- Khieu, B., T. Chhay, R. Ogle, and T. Preston. 2005. Research on the use of cassava leaves for livestock feeding in Cambodia. *Proceeding of the regional workshop on “The Use of Cassava Roots and Leaves for On- Farm Animal Feeding”*, Hue, Vietnam. Pp. 17-19.
- Khumaida, N., S. Ardie, M. Dianasari, and M. Syukur. 2015. Cassava (*Manihot esculenta* Crantz) Improvement through Gamma Irradiation. *Procedia Food Science*, 3(2015), 27-34.
- Kiatpongarp, W. and S. Tongta. 2007. Structural and physical properties of debranched tapioca starch. *Suranaree Journal of Science and Technology*, 14(2):195-204.
- Kodali, V., S. Das, and R. Sen. 2009. An exopolysaccharide from a probiotic: Biosynthesis dynamics, composition and emulsifying activity. *Food Research International*, 42(5–6):695–699.
- Kostinek M., I. Specht, V. Edward, C. Pinto, M. Egounlety, C. Sossa, S. Mbugua, C. Dortu, P. Thonart, L. Taljaard, M. Mengu, C. Franz, and W. Holzapfel. 2007. Characterisation and biochemical properties of predominant lactic acid bacteria from fermenting cassava for selection as starter cultures. *International Journal of Food Microbiology* **114(3)**:342–351.
- Kothari, D. and A. Goyal. 2013. Structural characterization of enzymatically synthesized dextran and oligosaccharides from *Leuconostoc mesenteroides* NRRL B-1426 dextransucrase. *Biochemistry (Mosc)*, 78:1483–1490
- Kothari, D., D. Deeplina, S. Patel, and A. Goyal. 2014. *Polysaccharides*. Springer International Publishing. Switzerland. Pp. 1-16.
- Kulla, P. 2019. “Aktivitas dan Karakterisasi Molekuler Bakteri Asam Laktat dalam Fermentasi Pangan ‘Ubi Karet Busuk’ dari Sumba, Nusa Tenggara Timur”. Fakultas Biologi. Universitas Gadjah Mada. Yogyakarta.

- Lacaze, G., M. Wick, and S. Cappelle. 2007. Emerging fermentation technologies: Development of novel sourdoughs. *Food Microbiology*, 24:155–160
- Lane, D., B. Pace, G. Olsen, D. Stahl, M. Sogin, and N. Pace. 1985. Rapid determination of 16S ribosomal RNA sequences for phylogenetic analyses. *Proceedings of the National Academy of Sciences of the United States of America*, 82:6955–6959.
- Larrea, M., M. Larrea, and C. Fernandez. 2014. *Encyclopedia of Toxicology*. 3rd Ed. Elsevier. Madrid. Pp. 960-969
- Leemhuis, H., T. Pijning, J. Dobruchowska, S. van Leeuwen, S. Kralj, B. Dijkstra, and L. Dijkhuizen. 2013. Three-dimensional structures, reactions, mechanism, a-glucan analysis and their implications in biotechnology and food applications. *Journal of Biotechnology*, 163:250–272
- Li, S., G. Chen, C. Zhang, M. Wu, S. Wu, and Q. Liu, 2014. Research progress of natural antioxidants in foods for the treatment of diseases. *Food Science and Human Wellness*, 3:110–116.
- Liu, Y., G. Zhao, M. Zhao, J. Ren, and B. Yang. 2012. Improvement of functional properties of peanut protein isolate by conjugation with dextran through Maillard reaction. *Food Chemistry*, 131:901–906
- Maina, N., L. Virrki, H. Pyonnonen, H. Maaheimo, and M. Tenkanen. 2011. Structural analysis of enzyme-resistant isomalto-oligosaccharides reveals the elongation of α -(1 \rightarrow 3) linked branches in *Weissella confusa* dextran. *Biomacromolecules*, 12:409–418
- Martins, S., W. Jongen, and M. van Boekel. 2001. A review of Maillard reaction in food and implications to kinetic modelling. *Trends in Food Science & Technology*, 11:364–373
- McKey, D., T. Cavagnaro, J. Cliff, R. Gleadow. 2010. Chemical ecology in coupled human and natural systems: people, manioc, multitrophic interactions and global change. *Chemoecology*, 20, 109-133.
- Montagnac J., C. Davis, and S. Tanumihardjo. 2009. Nutritional value of cassava for use as a staple food and recent advances for improvement. *Comprehensive Reviews in Food Science and Food Safety*, 8(3):181-194.
- Narvhus, J. and L. Axelsson. 2003. *Encyclopedia of Food Sciences and Nutrition* 2nd ed. : Lactic Acid Bacteria. Academic Press. Pp. 3465-3472.
- Naseri-Nosar, M., and Z. Ziora. 2018. Wound dressings from naturally-occurring polymers: A review on homopolysaccharide-based composites. *Carbohydrate Polymers*, 189, 379–398.
- Oboh, G. and A. Kindahunsi. 2005. Nutritional and Toxicological evaluation of *Saccharomyces cerevisiae* fermented cassava flour. *Journal of Food Composition and Analysis*, 18:731-738.
- Oleksy, M. and E. Klewicka. 2018. Exopolysaccharides produced by *Lactobacillus* sp.: Biosynthesis and applications. *Critical Reviews in Food Science and Nutrition*, 58(3):450–462.
- Olugbemi, T., S. Mutayoba, F. Lekule. 2010. Effect of Moringa (*Moringa oleifera*) inclusion in cassava based diets fed to broiler chickens. *International Journal of Poultry Science*, 9(4):363-367.

- Onwueme, I. 1978. *The tropical tuber crops*. New York: John Wiley and Sons Ltd. p. 274.
- Mende, S., M. Peter, K. Bartels, T. Dong, H. Rohm, and D. Jaros. 2013. Concentration dependent effects of dextran on the physical properties of acid milk gels. *Carbohydrate Polymers*, 98:1389–1396
- Monchois, V., R. Willemot, and P. Monsan. 1999. Glucansucrases: mechanism of action and structure- function relationships. *FEMS Microbiology Letters*, 23:131–151
- Naessens, M., A. Cerdobbel, W. Soetaert, and E. Vandamme. 2005. *Leuconostoc dextranucrase* and dextran: production, properties and applications. *Journal of Chemical Technology & Biotechnology*, 80:845–860
- Ngiki Y., J. Igwebuikwe, S. Moruppa. 2014. Utilisation of cassava products for poultry feeding: a review. *International Journal of Scientific & Technology Research*, 2(6):48-59.
- Olano-Martin, E., K. Mountzouris, G. Gibson, and R. Rastall. 2000. In vitro fermentability of dextran, oligodextran and maltodextrin by human gut bacteria. *British Journal of Nutrition*, 83:247–255
- Oliver, C., L. Melton, and R. Stanley. 2006. Creating protein with novel functionality via the Maillard reaction: a review. *Critical Reviews in Food Science and Nutrition*, 46:337–350
- Onyango, C., T. Bley, A. Jacob, T. Henle, and H. Rohm. 2006. Influence of incubation temperature and time on resistant starch type III formation from autoclaved and acid- hydrolysed cassava starch. *Carbohydrate Polymers*, 66:494-499.
- Pan, D., and X. Mei. 2010. Antioxidant activity of an exopolysaccharide purified from *Lactococcus lactis* subsp. *lactis* 12. *Carbohydrate Polymers*, 80(3), 908–914.
- Parashar, V., P. Jeffrey, and M. Neiditch. 2013. Conformational change-induced repeat domain expansion regulates rap phosphatase quorum-sensing signal receptors. *PLoS Biology*, 11(3): 1–15.
- Parlak, M., D. Ustek, and A. Tanrisevena. 2013. A novel method for covalent immobilization of dextranucrase. *Journal of Molecular Catalysis B: Enzymatic*, 89:52–60
- Pasteur, L. 1861. On the viscous fermentation and the butyrous fermentation. *Bulletin de la Société Chimique de France*, 11:30–31
- Patel, S., A. Majumder, and A. Goyal. 2012. Potentials of exopolysaccharides from lactic acid bacteria. *Indian Journal of Microbiology*, 52(1):3–12.
- Polak-Berecka, M., A. Waśko, H. Skrzypek, and A. Kreft. 2013. Production of exopolysaccharides by a probiotic strain of *Lactobacillus rhamnosus*: Biosynthesis and purification methods. *Acta Alimentaria*, 42(2):220–228.
- Promthong, S., U. Kanto, C. Tirawattanawanich, S. Tongyai, S. Isariyodom, K. Markvichitr, et al. 2005. Comparison of nutrient compositions and carbohydrate fractions of corn, cassava chip and cassava pellet ingredients: animals. In: *Proceedings of 43rd Kasetsart University Annual Conference*; 2005. Pp. 211-220. Thailand. *Proceedings of 44th Kasetsart University Annual Conference*, Thailand.

- Pruesse E., C. Quast, K. Knittel, B. Fuchs, and W. Ludwig. 2007. SILVA: a comprehensive online resource for quality checked and aligned ribosomal RNA sequence data compatible with ARB. *Nucleic Acids Research*, 35: 7188–7196.
- Rani, R., M. Anandharaj, and A. David. 2018. Characterization of a novel exopolysaccharide produced by *Lactobacillus gasserii* FR4 and demonstration of its *in vitro* biological properties. *International Journal of Biological Macromolecules*, 109, 772–783.
- Rahmeh, R., A. Akbar, T. Alonaizi, M. Kishk, A. Shajan, and B. Akbar. 2020. Characterization and application of antimicrobials produced by *Enterococcus faecium* S6 isolated from raw camel milk. *Journal of Dairy Science*, 13(12):11106-11115.
- Rao, T. and A. Goyal. 2013. A novel high dextran yielding *Weissella cibaria* JAG8 for cereal food application. *Int J Food Sci Nutr*, 64:346–354
- Ravindran, V. 1991. Preparation of cassava leaf products and their use as animal feeds. *Roots, Tubers, plantain and bananas in animal feeding, Rome, Italy: Food and Agriculture Organisation*, 95:111-125.
- Ravindran, G. and V. Ravindran. 1988. Changes in the nutritional composition of cassava (*Manihot esculenta* Crantz) leaves during maturity. *Food Chemistry*, 27:299-309.
- Saadat, Y., A. Khosroushahi, and B. Gargari. 2019. A comprehensive review of anticancer, immunomodulatory and health beneficial effects of the lactic acid bacteria exopolysaccharides. *Carbohydrate Polymers*, 217(2019):79-89.
- Sabatini, N. 2010. Chapter 24 – A Comparison of the Volatile Compounds, in Spanish-style, Greek-style, and Castelvetro-style Green Olives of the Nocellara del Belice Cultivar:: Alcohols, Aldehydes, Ketones, Esters, and Acids. *Olives and Olive Oil in Health and Disease Prevention*. Academic Press. Pp. 219-231.
- Salman, J. and M. Salim. 2016. Production and characterization of dextran from *Leuconostoc mesenteroides* ssp. *mesenteroides* isolated from Iraqi fish intestine. *European Journal of Biomedical And Pharmaceutical Sciences*, 3(8): 62-69.
- Sarbini, S., S. Kolida, S. Naeye, A. Einerhand, G. Gibson, and R. Rastall. 2013. The prebiotic effect of a-1,2 branched, low molecular weight dextran in the batch and continuous faecal fermentation system. *Journal of Functional Foods*, 5:1938–1946
- Sarwat, F., S. Qader., A. Aman, and N. Ahmed. 2008. Production and Characterization of a Unique Dextran from an Indigenous *Leuconostoc mesenteroides* CMG713. *International Journal of Biological Science*. 4(6):379-386.
- Sasikumar, K., V. Kozhummal, L. Devendra, and K. Nampoothiri. 2017. An exopolysaccharide (EPS) from a *Lactobacillus plantarum* BR2 with potential benefits for making functional foods. *Bioresource Technology*, 241, 1152–1156.
- Sayuti, K. dan R. Yenrina. 2015. *Antioksidan Alami dan Sintetik*. Padang. Andalas University Press. Hal. 77.
- Schmid, J., V. Sieber, and B. Rehm. 2015. Bacterial exopolysaccharides: Biosynthesis pathways and engineering strategies. *Frontiers in Microbiology*, 6, 496.

- Schwab, C., M. Mastrangelo, A. Corsetti, and M. Ganzle. 2008. Formation of oligosaccharides and polysaccharides by *Lactobacillus reuteri* LTH5448 and *Weissella cibaria* 10 M in sorghum sourdoughs. *Cereal Chemistry*, 85:679–684
- Shukla, R. and A. Goyal. 2013. Novel dextran from *Pediococcus pentosaceus* CRAG3 isolated from fermented cucumber with anti-cancer properties. *International Journal of Biological Macromolecules*, 62:352–357
- Shukla, S., Q. Shi, N. Maina, M. Juvonen, M. Tenkanen, and A. Goyal. 2014. *Weissella confusa* Cab3 dextransucrase: properties and in vitro synthesis of dextran and glucooligosaccharides. *Carbohydrate Polymers*, 101:554–564
- Siddiqui, N., A. Aman, and S. Qader. 2013. Mutational analysis and characterization of dextran synthesizing enzyme from wild and mutant strain of *Leuconostoc mesenteroides*. *Carbohydrate Polymers*, 91:209–216
- Siddiqui, N., A. Aman, A. Silipo, S. Qader, and A. Molinaro. 2014. Structural analysis and characterization of dextran produced by wild and mutant strains of *Leuconostoc mesenteroides*. *Carbohydrate Polymers*, 99:331–338
- Spanò, A., P. Laganà, G. Visalli, T. Maugeri, and C. Gugliandolo. 2016. *In vitro* antibiofilm activity of an exopolysaccharide from the marine thermophilic *Bacillus licheniformis* T14. *Current Microbiology*, 72(5), 518–528.
- Spotti, M., M. Martinez, A. Pilosof, M. Candioti, A. Rubiolo, and C. Carrara. 2014. Influence of Maillard conjugation on structural characteristics and rheological properties of whey protein/dextran systems. *Food Hydrocolloids*, 39:223–230
- Stackebrandt, E. and M. Teuber. 1988. Molecular taxonomy and phylogenetic position of lactic acid bacteria. *Biochimie*, 70:317–324.
- Stager, C. and J. Davis. 1992. Automated systems for identification of microorganisms. *Clinical Microbiology Review*, 5:302–327.
- Stiles, M. and W. Holzapfel. 1997. Lactic acid bacteria of foods and their current taxonomy. *International Journal of Food Microbiology*, 36(1):1–29.
- Stupak M., H. Vandeschuren, W. Gruissem, and P. Zhang. 2006. Biotechnological approaches to Cassava protein improvement. *Trends in Food Science & Technology*, 17:634–641.
- Suri, S. G. Ruan, J. Winter, and C. Schmidt. 2013. Biomaterials Science (Third Edition). Temmerman, R., G. Huys, and J. Swings. 2004. Identification of lactic acid bacteria: culture-dependent and culture-independent methods. *Trends in Food Science & Technology*, 15:348–359.
- Tang, Y., N. Ellis, M. Hopkins, D. Smith, D. Dodge, and D. Persing. 1998. Comparison of Phenotypic and Genotypic Techniques for Identification of Unusual Aerobic Pathogenic Gram-Negative Bacilli. *Journal of Clinical Microbiology*, 36(12):3674–3679.
- Tetchi, F., O. Solomen, K. Célah, and A. Georges. 2012. Effect of cassava variety and fermentation time on biochemical and microbiological characteristics of raw artisanal starter for attie'ké' production. *Innovative Romanian Food Biotechnology*, 10:40–47.
- Trabelsi, I., N. Ktari, S. Slima, M. Triki, S. Bardaa, H. Mnif. 2017. Evaluation of dermal wound healing activity and in vitro, antibacterial and antioxidant activities of a new exopolysaccharide produced by *Lactobacillus* sp. Ca6. *International Journal of Biological Macromolecules*, 103, 194–201.

- Ubalua, A. and O. Ezeronye. 2008. Growth responses and nutritional evaluation of cassava peel based diet on Tilapia (*Oreochromis niloticus*) Fish Fingerlings. *Journal of Food Technology*, 6(5):207-213.
- Vettori, M., S. Franchetti, and J. Contiero. 2012. Structural characterization of a new dextran with low degree of branching produced by *Leuconostoc mesenteroides* FT045B dextransucrase. *Carbohydrate Polymers*, 88:1440–1444
- Vos, P., G. Garrity, D. Jones, N. Krieg, W. Ludwig, F. Rainey, K. Schleifer, and W. Whitman. 2009. *Bergey's Manual of Systematic Bacteriology Second Edition*. New York. Springer.
- Vujicic-Zagar, A., T. Pijning, S. Kralj, C. Lopez, W. Eeuwema, L. Dijkhuizen, and B. Dijkstra. 2010. Crystal structure of a 117 kDa glucansucrase fragment provides insight into evolution and product specificity of GH70 enzymes. *Proceedings of the National Academy of Science U S A*, 107:21406–21411
- Wilson, K., R. Blichington, and R. Greene. 1990. Amplification of bacterial 16S ribosomal DNA with polymerase chain reaction. *Journal of Clinical Microbiology*, 28:1942–1946.
- Winarti, S. 2010. Makanan Fungsional. Yogyakarta
- Wolter, A., A. Hager, E. Zannini, M. Czerny, and E. Arendt. 2014. Influence of dextran producing *Weissella cibaria* on baking properties and sensory profile of gluten-free and wheat breads. *International Journal of Food Microbiology*, 172:83–91
- Qader SA, Iqbal L, Rizvi HA, Zuberi R. 2001. Production of dextran from sucrose by a newly isolated strain of *Leuconostoc mesenteroides* (PCSIR-3) with reference to *Leuconostoc mesenteroides* NRRL-B512F. *Biotechnology and Applied Biochemistry*. 2001; 34: 93–97.
- Xing, K., X. Chen, M. Kong, C. Liu, S. Dong, and H. Park. 2009. Effect of oleoyl-chitosan nanoparticles as a novel antibacterial dispersion system on viability, membrane permeability and cell morphology of *Escherichia coli* and *Staphylococcus aureus*. *Carbohydrate Polymers*, 76(1), 17–22.
- Yan, C., T. Liu, W. Ke, C. Hou, S. Cai, and Y. Huang. 2016. Baicalein inhibits *Staphylococcus aureus* biofilm formation and the quorum sensing system *in vitro*. *PLoS One*, 11(4), e0153468
- Zafar, S., N. Siddiqui, F. Shahid, S. Qader, and A. Aman. 2018. Bioprospecting of indigenous resources for the exploration of exopolysaccharide producing lactic acid bacteria. *Journal of Genetic Engineering and Biotechnology*. 16(2018): 17-22.
- Zannini, E., Waters, D. M., Coffey, A., and Arendt, E. K. 2016. Production, properties, and industrial food application of lactic acid bacteria-derived exopolysaccharides. *Applied Microbiology and Biotechnology*, 100(3):1121–1135.
- Zeidan, A. A., V. Poulsen, T. Janzen, P. Buldo, D. Pmf, G. Øregaard, et al. 2017. Polysaccharide production by lactic acid bacteria: From genes to industrial applications. *FEMS Microbiology Reviews*, 41(Supp_1), S168.
- Zhang, J., N. Wu, X. Yang, X. He, and L. Wang. 2012. Improvement of emulsifying properties of Maillard reaction products from b-conglycinin and dextran using controlled enzymatic hydrolysis. *Food Hydrocolloids*, 28:301–312

- Zhou, A., Thomson, E., 2009. The development of biofuels in Asia. *Applied Energy*, 86, S11-S20.
- Zhu, D., S. Damodaran, and J. Lucey. 2010. Physicochemical and emulsifying properties of whey protein isolate (WPI)-dextran conjugates produced in aqueous solution. *Journal of Agricultural and Food Chemistry*, 58:2988–2994