

CV – Professor Toshiki ENOMOTO



Name: Toshiki ENOMOTO, Ph.D.
Date of Birth: May 14th 1958
Nationality: Japanese
Present Position: Professor of Department of Food Science (Food Chemistry Laboratory), Faculty of Bioresources and Environmental Sciences, Ishikawa Prefectural University

Office Address

1-308 Suematsu, Nonoichi, Ishikawa 921-8836, Japan
Tel and Fax: +81-76-227-7452
E-mail: enomoto@ishikawa-pu.ac.jp

Educational Background:

1983 Received BS. From Dept of Animal Science, Obihiro University of Agriculture and Veterinary Medicine
1985 Received MS. From Graduate School of Agricultural Science, Osaka Prefecture University
1988 Received PhD. From Graduate School of Agricultural Science, Osaka Prefecture University

Research Field:

Food Chemistry and Food Function

Research Themes in 2019

1. Identification of oligosaccharides in honey
2. The volatile compounds of Kaga boucyu (roasted stem tea)
3. Chemical composition and microflora of Asian fermented fish products
4. Anti-influenza virus activity of agricultural, forestry and fishery products
5. Chemical composition and microflora of kefir
6. Elucidation of detoxification mechanism of tetrodotoxin from puffer fish ovaries picked in rice bran

Professional Career:

1988 Assistant Professor, Division of Life and Health Sciences,

	Joetsu University of Education
1993	Associate Professor, Department of Food Science, Ishikawa Agricultural College
1994-1995	Visiting Scientist Supported by Ministry of Education, Culture, Sports, Science and Technology-Japan, School of Biological Sciences, University of Nebraska-Lincoln, U.S.A
2003	Professor, Department of Food Science, Ishikawa Agricultural College
2005-present	Professor, Department of Food Science, Ishikawa Prefectural University
2013-2017	Director of the scientific cooperation center for industry academia and government (Additional post)
2017-2019	Dean of Students (Additional post)
2018-present	Advisor of the President (Additional post)
2019-present	Director of Scientific Cooperation Center for Industry, Academia and Government (Additional post)
2019-present	Visiting Professor of Dalian Polytechnic University of China (Additional post)
2020-present	Chairperson of Department of Food Science (Additional post)

Academic Distinctions:

1984-present	Member of Japan Society For Bioscience, Biotechnology, and Agrochemistry
1984-present	Member of Japan Society of Nutrition and Food Science
2000-present	Member of The Japanese Society For Food Science and Technology
2004-present	Secretary Member of Japan Society of Nutrition and Food Science, Chubu Branch
2004-present	Secretary Member of The Japanese Society For Food Science and Technology, Chubu Branch
2005-present	Secretary Member of Japan Society For Bioscience, Biotechnology, and Agrochemistry, Chubu Branch
2005-present	Executive board member of The Japanese Society for Complementary and Alternative Medicine
2011-present	Secretary Member of Japan Society For Bioscience, Biotechnology, and Agrochemistry

2013-present Member of American Chemical Society

Award:

- 2003 Incentive Award of The Japanese Society For Food Science and Technology
- 2005 Plaque of Commendation (Ishikawa Food Association)
- 2011 Certificate of Appreciation (American Chemical Society)
- 2016 The Excellent Paper Award Published in Bioscience, Biotechnology, & Biochemistry

Major Publications in English:

Books

1. Nakano Y., Matsumoto T., Inui H., Harano K., Miyatake K., Enomoto T., Hayashi M., Nakatsuka T. and Watanabe F. 2001. "Growth of photosynthetic algae, *Euglena gracilis*, under high CO₂ conditions and its photosynthetic characteristics" in Photosynthetic Microorganisms in Environmental Biotechnology (All the 310 pages). Kojima H. and Lee Y.K. ed., Springer-Verleg, Hong-Kong Ltd.
2. Taniguchi H., Enomoto T. and Michihata T. 2009. "Physiological function of a Japanese traditional fish sauce, Ishiru." in Biocatalysis and Agricultural Biotechnology (All the 409 pages). Hou, T. and Shaw, J.F. ed., CRC Press, Boca Raton London New York, 199-206.

Peer Reviewed Manuscripts

1. Miyatake K. , Enomoto T. and Kitaoka S., 1984. Detection and subcellular distribution of pyrophosphate:D-fructose 6-phosphate 1-phosphotransferase in *Euglena gracilis.*, Agricultural and Biological Chemistry, 48: 2857-2858.
2. Miyatake K., Enomoto T., Masuda R. and Kitaoka S., 1985. Inhibition of *Euglena gracilis* fructose 1, 6-bisphosphatase by fructose 2, 6-bisphosphate., Agricultural and Biological Chemistry, 49: 2279-2281.
3. Miyatake K. , Enomoto T., Masuda R. and Kitaoka S., 1985. Fructose 2, 6-bisphosphate activates pyrophosphate: D-fructose 6-phosphate 1-phosphotransferase from *Euglena gracilis.*, Agricultural and Biological Chemistry, 50: 2417-2418.
4. Miyatake K., Enomoto T., Kawano K., Nakano Y. and Kitaoka S., 1986. Effect of diets on the concentration of fructose 2, 6-bisphosphate in rat liver., Agricultural and Biological Chemistry, 50: 3177-3178.
5. Enomoto T., Miyatake K. and Kitaoka S., 1988. Purification and immunological properties of fructose 2, 6-bisphosphate-sensitive: D-fructose 6-phosphate 1-

- phosphotransferase from protist *Euglena gracilis*, Comparative Biochemistry and Physiology, 90B:897-902
6. Enomoto T., Miyatake K. and Kitaoka S., 1989. Occurrence and characterization of fructose 6-phosphate, 2-kinase and fructose 2, 6-bisphosphatase in *Euglena gracilis*, Comparative Biochemistry and Physiology, 92B:477-480.
 7. Enomoto T., Ohyama H., Inui H., Miyatake K., Nakano Y. and Kitaoka S., 1990. Roles of pyrophosphate:D-fructose 6-phosphate 1-phosphotransferase and fructose 2, 6-bisphosphate in the regulation of glycolysis during acclimation of aerobic *Euglena gracilis* to anaerobiosis., Plant Science, 67: 161-167.
 8. Enomoto T., Ohyama H., Inui H., Miyatake K., Nakano Y. and Kitaoka S., 1991. Regulation mechanism of the pyrophosphate:D-fructose 6-phosphate 1-phosphotransferase activity by fructose 2, 6-bisphosphate in *Euglena gracilis*, Plant Science, 73: 11-18.
 9. Enomoto T., Kodama M. and Ohyama H., 1992. Purification and characterization of pyrophosphate:D-fructose 6-phosphate 1-phosphotransferase from rice seedlings., Bioscience Biotechnology and Biochemistry, 56: 251-255.
 10. Enomoto T., Kodama M. and Ohyama H., 1994. Purification and characterization of pyrophosphate:D-fructose 6-phosphate 1-phosphotransferase from rice seedlings., Bioscience Biotechnology and Biochemistry, 56: 251-255.
 11. Fukuoka N. and Enomoto T., 1996. Role of the pentose phosphate pathway in the development of brown pith in the root of Japanese radish (*Raphanus sativus* L.), Sand Dune Research, 58: 19-23.
 12. Enomoto T., Sulli C. and Schwartzbach S.D., 1997. A soluble chloroplast protease processed the *Euglena* polyprotein precursor to the light harvesting chlorophyll a/b binding protein of photosystem II., Plant and Cell Physiology, 38: 743-746.
 13. Adachi T., Takenoshita M., Katsura H., Yasuda K., Tuda K., Seino Y., Enomoto T., Yamaji R., Miyatake K., Inui H. and Nakano Y., 1999. Disordered expression of the sucrase-isomaltase complex in the small intestine in Otsuka Long-Evans Tokushima fatty rats, a model of non-insulin-dependent diabetes mellitus with insulin resistance., Biochimica et Biophysica Acta, 1426: 126-132.
 14. Enomoto T., Nakao C. and Ohyama H., 2000. Regulation of glycolysis during acclimation of scallops (*Patinopecten yessoensis* Jay) to anaerobiosis., Comparative Biochemistry and Physiology, 127B: 45-52
 15. Kuda T., Enomoto T., Yano T. and Fujii T., 2000. Cecal environment and TBARS level in mice fed corn oil, beef tallow and menhaden fish oil., Journal of Nutritional Science and Vitaminology, 46: 65-70.

16. Watanabe F., Katsura H., Takenaka S., Enomoto T., Miyamoto M., Nakatsuka T. and Nakano Y., 2001. Characterization of vitamin B12 compounds from edible shellfish, clam, oyster and mussel, *International Journal of Food Science and Nutrition*, 52: 263-268.
17. Fukuoka N. and Enomoto T., 2001. The occurrence of internal browning induced by high soil temperature treatment and its physiological function in *Raphanus* root., *Plant Science*, 161: 117-124.
18. Fukuoka N. and Enomoto T., 2002. Enzyme activity changes in relation to internal browning in *Raphanus* roots sown early and late., *The Journal of Horticultural Science and Biotechnology*, 77: 456-460.
19. Michihata T., Yano T. and Enomoto T., 2002. Volatile compounds of headspace gas in Japanese fish sauce ISHIRU., *Bioscience Biotechnology and Biochemistry*, 66: 2251-2255.
20. Ebara S., Adachi S., Takenaka S., Enomoto T., Watanabe F., Yamaji R., Inui H. and Nakano Y., 2003. Hypoxia-induced megaloblastosis in vitamin B12-deficient rats., *British Journal of Nutrition*, 89: 441-444.
21. Takenaka S., Enomoto T., Tsuyama S. and Watanabe F., 2003. TLC-analysis of corrinoid compounds in fish sauce., *Journal of Chromatography and Related Technologies*, 26: 2703-2707.
22. Watanabe F., Michihata T., Takenaka S., Kittaka-Katsura H., Enomoto T., Miyamoto E., Adachi S. 2004. Purification and characterization of corrinoid compounds from a Japanese fish sauce., *Journal of Chromatography and Related Technologies*, 27: 2113-2119.
23. Sugimoto K., Suzuki J., Nakagawa K., Hayashi S., Enomoto T., Fujita T., Yamaji R., Inui H. and Nakano Y. 2005., Eucalyptus leaf extract inhibits internal fructose absorption, and suppresses adiposity due to dietary sucrose in rats., *British Journal of Nutrition*, 93: 957-963.
24. Adachi S., Miyamoto E., Watanabe F., Enomoto T., Kuda T., Hayashi M. and Nakano Y., 2005. Purification and characterization of a corrinoid compounds from a Japanese salted and fermented salmon kidney "Mefun"., *Journal of Chromatography and Related Technologies*, 28: 2561-2569.
25. Lee N.Y., Cheng J.T., Enomoto T. and Nakano Y., 2006. One peptide derived from hen ovotransferrin as pro-drug to inhibit angiotensin converting enzyme., *Journal of Food and Drug Analysis*, 14: 31-35.
26. Lee N.Y., Cheng J.T., Enomoto T. and Nakamura I., 2006. The antihypertensive activity of angiotensin- converting enzyme inhibitory peptide containing in bovine

- lactoferrin., Chinese Journal of Physiology, 49: 67-73.
27. Lee N.Y., Cheng J.T., Enomoto T. and Nakamura I., 2006. Antihypertensive effect of angiotensin- converting enzyme inhibitory peptide from hen ovotransferrin., Journal of Chinese Chemical Society, 53: 495-501.
 28. Lee N.Y., Cheng J.T., Enomoto T. and Nakamura I., 2006. Essential of proline and valine residues in the angiotensin converting enzyme inhibitory peptide derived from lactoferrin., Journal of Chinese Chemical Society, 53: 515-518.
 29. Watanabe F., Tanioka Y., Enomoto T., Kuda T. and Nakano Y., 2006. TLC analysis of corrinoid compounds in the halophilic lactic acid bacterium *Tetragenococcus halophilus.*, Journal of Chromatography and Related Technologies, 29: 2153-2158.
 30. Fukuoka N. and Enomoto T., 2007. Intervarietal differences of the occurrence of internal browning and the role of ascorbic acid in *Raphanus* roots., Journal of the Japanese Society for Horticultural Science, 76: 144-148.
 31. Nishioka M., Tanioka Y., Miyamoto E., Enomoto T. and Watanabe F., 2007. TLC analysis of a corrinoid compound from dark muscle of the yellowfin tuna (*Thunnus albacares*)., Journal of Chromatography and Related Technologies, 30: 2145-2252.
 32. Fukuoka N. and Enomoto T., 2007. Effect of sulfur application on enzyme activities in relation to the ascorbate-glutathione cycle and the occurrence of internal browning in *Raphanus* roots., Journal of the Japanese Society for Horticultural Science, 76: 305-309.
 33. Kuda, T., Enomoto, T. and Yano, T., 2009. Effects of two storage β -1,3-glucans, laminaran from *Eicenia bicyclis* and paramylon from *Euglena gracilis*, on cecal environment and plasma lipid levels in rats., Journal of Functional Food, 1: 399-404.
 34. Hayashi, H., Takegawa, M., Matsuzawa, K., Yoshizawa, M., Barla, F., Yukino, T., Mieda, T., Inui, H., Nakano, Y. and Enomoto, T., 2009. Effect of administration of adlay leaves on 2,4,6-trinitro-1-chlorobenzene-induced chronic dermatitis in mice., Food Science and Technology Research, 15: 525-530.
 35. Hayashi, H., Ohta, Y., Arai, T., Shimano, Y., Takano, F., Strong, J.M., Enomoto, T., Uebara, K., Ohta, T. and Suzuki, N., 2009. Acute oral toxicity test of hot water extract of *Coix lacryma-jobi* L. var *mayuen* stapf in rats., Japanese Journal of Complementary and Alternative Medicine, 6: 105-110.
 36. Hayashi H., Arai T., Strong J.M., Tokuda H., Shimano Y., Ohta Y., Enomoto T., Uebaba K., Ohta T. and Suzuki N., 2009. 28-day repeated dose oral toxicity test of *coix lacryma-jobi* L. var. *ma-yuen* Stapf in Rats., Japanese Journal of Complementary and Alternative Medicine, 6: 131-135.

37. Miyamoto, E., Yabuta, Y., Kwak, C.S., Enomoto, T. and Watanabe, F., 2009. Characterization of Vitamin B12 from Korean purple laver (*Porphyra* sp.) products., *Journal of Agricultural and Food Chemistry*, 57:2793-2796.
38. Fukuoka, N., Ikeshita, Y. and Enomoto, T., 2010. Relationship between the occurrence of internal browning and size of xylem parenchymatous cells in roots of Japanese radish., *Journal of the Japanese Society for Horticultural Science*, 79: 27-33
39. Barla, F., Horinishi, A., Harada, N., Yamaji, R., Enomoto, T., Suzuki, N., Maenaka, H., Nakano, Y. and Inui, H., 2010. Potential use of *Bischofia Javanica* as an active ingredient of functional foods and cosmeceutical products possessing hyaluronidase, collagenase, tyrosinase and urease inhibitory effects., *Japanese Journal of Complementary and Alternative Medicine*, 7: 129-133.
40. Yabuta, Y., Fujimura, H., Chung, S.K., Enomoto, T. and Watanabe, F., 2011. Antioxidant Activity of the Phycoerythrobilin-compound Formed from a Dried Korean Purple Laver (*Porphyra* sp.) during in Vitro Digestion., *Food Science and Technology Research*, 16: 347-352.
41. Kawamura-Konishi Y., Watanabe N., Saito M., Nakajima N., Sakaki T., Katayama T. and Enomoto T., 2012. Isolation of a new phlorotannin a potent inhibitor of carbohydrate-hydrolyzing enzymes from the brown alga *saragassum patens*. *Journal of Agricultural and Food Chemistry*, 60: 5565-5570.
42. Sasaki T., Koudou M., Michihata T., Nakamura S., Aburatani M., Tokuda K., Koyanagi T. and Enomoto T., 2013. Purification and antihypertensive activity of a novel angiotensin-I converting enzyme inhibitory peptide from squid fish sauce, *Ishiru*. *Japanese Journal of Complementary and Alternative Medicine*, 10, 45-49.
43. Sasaki T., Michihata T., Katsuyama Y., Take H., Nakamura S., Aburatani M., Tokuda K., Koyanagi T., Taniguchi H. and Enomoto T., 2013. Effective removal of heavy metal in fish sauce by tannin treatment. *Journal of Agricultural and Food Chemistry*, 61: 1184-1188.
44. Yamaguchi K., He S., Li Z., Murata K., Hitomi N., Mozumi N., Ariga R. and Enomoto T., 2013. Preparation of polyclonal antibody specific to major royal jelly protein 1 (MRJP1) and its utilization in quantification of MRJP1 in fresh royal jelly by indirect ELISA. *Bioscience, Biotechnology, and Biochemistry*, 77: 1310-1312.
45. Koyanagi T., Nakagawa A., Kiyohara M., Matsui H., Yamamoto K., Barla F., Take H., Katsuyama Y., Tsujii A., Shijimaya M., Nakamura S., Minami H., Enomoto T., Katayama T. and Kumagai H., 2013. Pyrosequencing analysis of microbiota in Kaburazushi, a traditional medieval sushi in Japan. *Bioscience, Biotechnology and*

- Biochemistry, 77: 2125-2130.
46. Roth C.M., Shiomoto M., Koyanagi T., Sasaki T., Michihata T., Sarun C., Sopheareth M. and Enomoto T. 2014. Microbial and chemical properties of Cambodian traditional fermented fish products. *Journal of the Science of Food and Agriculture*, 94: 1124-1131.
 47. Fukuoka N and Enomoto T. 2014. Relationship between the concentration of pectin-like substances and the severity of internal browning in radish (*Raphanus sativus* L.) roots induced by high soil temperature. *Journal of Horticultural Science & Biotechnology*, 89: 625-630.
 48. Sasaki T., Araki R., Michihata T., Kozawa M., Tokuda K., Koyanagi T. and Enomoto T., 2014. Removal of cadmium from fish sauce using chelate resin. *Food Chemistry*, 173 : 375-381.
 49. Koyanagi T., Nakagawa A., Kiyohara M., Matsui H., Tsuji A., Barla F., Take H., Katsuyama Y., Tokuda K., Nakamura S., Minami H., Enomoto T., Katayama T. and Kumagai H. 2016. Tracing microbiota changes in yamahaimoto, the traditional Japanese sake starter. *Bioscience Biotechnology and Biochemistry*, 80: 399-406.
 50. Barla F., Koyanagi T., Tokuda N., Matsui H., Katayama T., Kumagai H., Michihata T., Sasaki T., Tsuji A. and Enomoto T. 2016. The γ -aminobutyric acid-producing ability under low pH conditions of lactic acid bacteria isolated from traditional fermented foods of Ishikawa Prefecture, Japan, with a strong ability to produce ACE-inhibitory peptides. *Biotechnology Reports*, 10: 105-110.
 51. Chuprom J., Bovornreungroj P., Ahmad M., Kantachote D. and Enomoto T. 2016. Statistical optimization for the improved production of an extracellular alkaline nuclease by halotolerant *Allobacillus halotolerans* MSP69: Scale-up approach and its potential as flavor enhancer of fish sauce. *Biocatalysis and Agricultural Biotechnology*, 8. 236-247.
 52. Sasaki T., Koshi E., Take H., Michihata T. and Enomoto T. 2017. Characterization of odorants in roasted stem tea using gas chromatography-mass spectrometry and gas chromatography-olfactometry analysis. *Food Chemistry*, 220: 177-183.
 53. Itoh N., Toda H., Koyanagi T. and Enomoto T. 2017. Characterization of two cryptic plasmids from *Kocuria palustris* IPUFS-1 and construction of novel *Escherichia coli*-*Kocuria* shuttle vector for biocatalysis, *Journal of Bioscience and Bioengineering*, 124: 255-262..
 54. Dueramae S., Bovornreangroj P., Enomoto T. and Kantachote D. 2017. Purification and characterization of an extracellular lipolytic enzyme from the fermented fish originated halotolerant bacterium, *Virgibacillus alimentarius* LBU20907. *Chemical*

Papers, 71: 1975-1984.

55. Dueramae S., Bovornreangroj P., Enomoto T. and Kantachote D. 2017. Enhancement of halophilic lipase production by *Virgibacillus alimentarius* LBU20907 using a statistical approach and scale-up in a fermenter. *Walailak Journal of Science and Technology*, 14: 921-939.
56. Nagai E., Iwai M., Koketsu R., Sogabe R., Morimoto Y., Suzuki, Ohta Y., Okuno Y., Ohshima A., Enomoto T. and Isegawa Y. 2018. Inhibition of influenza virus replication by adlay tea. *Journal of the Science of Food and Agriculture*, 98: 1899-1905.
57. Tsuji A., Kozawa M., Tokuda K., Enomoto T., Koyanagi (2018) Robust domination of *Lactobacillus sakei* in microbiota during traditional Japanese sake starter Yamahai-moto fermentation and the accompanying changes in metabolites. *Current Microbiology*, 75: 1498-1505.
58. Mahmoud A.H., Ehab R., Gamba R.R., Nagai E., Suzuki T., Koyanagi T. and Enomoto T., 2019. The biological activity of fermented milk produced by *Lactobacillus casei* ATCC393 during cold storage. *International Dairy Journal*, 191: 1-8.
59. Gamba R.R., Yamamoto S., Sasaki T., Michihata T., Abdel-Hamid M., Koyanagi T. and Enomoto T. 2019. Microbiological and functional characterization of kefir grown in different sugar solutions. *Food Science and Technology Research*, 25: 303-312.
60. Kobayashi R., Enomoto M., Higa M., Okuno I., Kizaki F., Taniguchi A. and Enomoto T. 2019. Usefulness of barley flour for retention of palatability and antioxidant capacity and inhibition of acrylamide formation in flour products cooked at high temperatures. *International Journal of Gastronomy and Food Science*, 17: 100163.
61. Nagai E., Iwai M., Koketsu R., Okuno Y., Suzuki Y., Morimoto R., Sumitani H., Ohshima A., Enomoto T. and Esegawa Y.. 2019, Anti-influenza virus activity of adlay tea components. *Plant Foods for Human Nutrition*, 74: 538-543.
62. Mahmoud A.H., Romeih E., Huang Z., Enomoto T., Li Huang, and Ling L. 2020. Bioactive Properties of probiotic set-yogurt supplemented with *Siraitia grosvenorii* fruit extract. *Food Chemistry*, 303 : 125400.
63. Honda Y., Saito Y., Mishima T., Katsumi N., Matsumoto K., Enomoto T. and Miwa S. 2020. Characterization of physicochemical and digestive properties of starches from various "dainagon" adzuki beans (*Vigna angularis*) cultivated in Japan. *International Journal of Biological Macromolecules*, 148: 1021-1028.
64. Gamba R.R., Yamamoto S., Abdel-Hamid M., Sasaki T., Michihata T., Koyanagi T. and Enomoto T. 2020. Chemical, microbiological, and functional characterization of

- kefir produced from cow's milk and soy milk. *International Journal of Microbiology*, <https://doi.org/10.1155/2020/7019286>.
65. Sasaki T, Ando S., Miyazawa T., Yamauchi D., Take H., Yamazaki Y. and Enomoto T. 2020. Characterisation of 'Ruby Roman' table grapes (*vitis labruscana bailey*) by sensory evaluation and analysis of aroma and taste compounds. 2020. *Food Science of Technology Research*, 26: 423-434.
 66. Dueramae S., Varichanan P. and Enomoto T. 2020. Rapid screening of cultural parameters for extracellular halophilic glutaminase production from *tetragenococcus muriaticus* FF5302 using the placket-burman experimental design., *Walalak Journal of Science & Technology*, in press.
 67. Taha S., El-Sherbiny I., Enomoto T., Salem A., Nagai E., Askar A., Abady G. and Abdel-Hamid M. 2020. Improving the functional activities of curcumin using milk proteins as nanocarriers. *Foods*, <https://doi.org/10.3390/foods9080986>.
 68. Abdel-Hamid M., Huang Z., Suzuki T., Enomoto T., Hamed A.M., Li L. and Romeih E. 2020. Development of a multifunction set yogurt using *Rubus suavissimus* S. Lee (Chinese sweet tea) extract. 2020. *Foods*, <https://doi.org/10.3390/foods9091163>.

Major Publications in Japanese:

Books

1. Enomoto T. 2000. "Change of quality and taste in food" in *Basic Food Science* (All the 259 pages), Takano M. and Yokoyama M. ed., Nippo Press, Tokyo, 70-91.
2. Enomoto T. 2001. "Change of nutrition, quality and taste by retort treatment" in *Guidebook for Retort-packed Food* (All the 209 pages), Takano M. and Yokoyama M. ed., Japan Food Journal, Tokyo, 134-155.
3. Enomoto T. 2002. "Chemical accident and its counterplan in food" in *Safety Counterplan for Packing Food* (all the 233 pages), Yokoyama M. and Kurita M. ed., Nippo Press, Tokyo, 120-138.
4. Enomoto T. 2006. "Development and safety of functional food for the aged" in *New Food Development for the aged* (All the 236 pages), Aiba T., Nishide T. and Yokoyama M. ed., Saiwaishobo, Tokyo, 56-69.
5. Enomoto T. 2016. "Nutrition and physiological function of Kinjiso (*Gynura bicolor*) and six-rowed barley (*Hordeum vulgare* f. *hexastichon*)" in *Non-disease precaution need to be known -Use of supplements based on evidence for preventive medicine-* (All the 335 pages), Tadano T. ed., Ucyudo-Yagisyoten, Tokyo, 70-86.

Review

1. Miyatake K. and Enomoto T., 1989. Regulation mechanism of carbohydrate metabolism in *Euglena.*, Nippon Nogeikagaku Kaishi, 11:1503-1505.
2. Enomoto T., 1993. Umami of scallops -Change of the taste components during acclimation of aerobic scallops to anaerobiosis-, Kagaku to Seibutsu, 32: 765-766.
3. Michihata T., Yano T. and Enomoto T., 2002. Fish sauce, ISHIRU in Noto Peninsula of Japan., New Food Industry, 44: 1-8.
4. Enomoto T. 2003. Nutrition of agricultural and marine products in Hokuriku District and its utilization for processing foods., Nippon Shokuhin Kagaku Kogaku Kaishi, 50:379-385.
5. Hayashi M. and Enomoto T., 2004. The possibility of *Euglena* in the future as a feed, food, and new materials., Iden, 58:71-76.
6. Enomoto T., Koyanagi T., Michihata T., Sasaki T. and Tsuji A. 2015, Component and microbial properties of traditional fermented foods in Ishikawa prefecture., Foods & Food Ingredients Journal of Japan, 220: 44-51.
7. Sasaki T., Michihata T. and Enomoto T. 2015. Flavor of Boucha: traditional roasted tea in Kanazawa, Journal of Japan Association on Odor Environment, 46:133-140.

Peer Reviewed Manuscripts (Title, Figure, Table and Summary in English)

1. Ohyama H., Kubo M. and Enomoto T., 1991. Determination of taurine in foods using an adsorption-distribution HPLC., Journal of Japan Society of Nutrition and Food Science, 44: 305-308.
2. Nakano Y., Miyatake K., Yamaji R., Nishizawa A., Shigeoka S., Hosotani K., Inui H., Watanabe F., Enomoto T. and Takenaka S., 1995. A protist, *Euglena gracilis* Z, functions as a sole nutrient source in a closed ecosystem., Celss Journal, 8: 7-12.
3. Enomoto T., Takizawa Y. and Ohyama H., 1996. Changes in Umami-related metabolites during acclimation of aerobic scallop (*Patinopecten yessoensis* Jay) to anaerobiosis., Journal of Japan Society of Nutrition and Food Science, 49: 349-353.
4. Ohyama H., Enomoto T. and Mitsunaga S., 1997. Variety of Kiwi Fruit Proteases and their collagenolytic activity., Journal of Japan Society of Nutrition and Food Science, 50: 57-62.
5. Michihata T., Sado Y., Morita Y. and Enomoto T., 1997. Extraction of Lipid from the residue of "IKA-ISHIRU" (Squid Fish Sauce) using supercritical carbon dioxide., Nippon Shokuhin Kagaku Kogaku Kaishi, 44: 795-800.
6. Michihata T., Sado Y., Yano T. and Enomoto T., 2000. Free amino acids, oligopeptides,

- organic acids and nucleotides of ISHIRU (Fish Sauce)., Nippon Shokuhin Kagaku Kogaku Kaishi, 47: 241-248.
7. Michihata T., Sado Y., Yano T. and Enomoto T., 2000. Preparation of ISHIRU (Fish Sauce) by a quick ripening process and changes in the composition of amino acids, oligopeptides and organic acids during processing., Nippon Shokuhin Kagaku Kogaku Kaishi, 47: 369-377.
 8. Michihata T., Kato D., Yano T. and Enomoto T., 2006. Contents of polyamines in ISHIRU (Fish Sauce)., Nippon Shokuhin Kagaku Kogaku Kaishi, 53: 337-343.
 9. Nishi M., Enomoto T. and Sakai R., 2012. Effect of okara reacted to subcritical water on antitumor and antipromoter activity., Japanese Journal of Complementary and Alternative Medicine, 9: 129-135.
 10. Nishi M., Kurita Y., Matsui H., Kumagai H., Take H., Michihata T., Sasaki T., Kawasima M., Fujihara E., Kuda T., Koyanagi T. and Enomoto T. 2014. Effect of fermented of okara on cecum microflora in rat. Japanese Journal of Complementary and Alternative Medicine, 11; 89-94.
 11. Hashizume N., Kobayashi R., Iwata E., Tsuchida K. and Enomoto T. 2016. Basic properties and palatability traits of saccharified cereal solutions., Nihon Chori Kagakukaishi, 49; 117-127.
 12. Hashizume N., Kobayashi R., Iwata E., Tsuchida K. and Enomoto T. 2017. Effects of the addition of saccharified cereal solution on the quality and taste properties of breads, Nihon Kaseigakkaishi, 68: 402-412.
 13. Nagai E., Okuda M., Pan L., Suzuki N., Kyo H., Takino M., Takizawa Y., Isegawa Y. and Enomoto T. 2017. Anti-influenza virus activity of coix-seed reactive derivatives., Japanese Journal of Complementary and Alternative Medicine, 14: 61-66.
 14. Kyo H., Suzuki N., Enomoto T., Urata T., Sutoh K., Usumi K. and Uebaba K. 2018. Influence of the special processing rice on the factors of lifestyle related disease., Japanese Journal of Complementary and Alternative Medicine, 15: 103-108.
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