

Curriculum Vitae

Shuichi Masuda, Ph.D.

Position: Professor

Laboratory: Laboratory of Food Hygiene

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Education

Ph.D.2006,	University of Shizuoka, Shizuoka, Japan Graduate School of Nutritional and Environmental Sciences
M.S. 1994,	University of Shizuoka, Shizuoka, Japan Graduate School of Nutritional and Environmental Sciences
B.S. 1991,	University of Shizuoka, Shizuoka, Japan School of Food and Nutritional Sciences

Experience

2017-Present	Professor, School of Food and Nutritional Sciences, University of Shizuoka, Shizuoka, Japan
2009-2017	Associate Professor, School of Food and Nutritional Sciences, University of Shizuoka, Shizuoka, Japan
2007-2009	Assistant Professor, School of Food and Nutritional Sciences, University of Shizuoka, Shizuoka, Japan
2001-2007	Research Assistant, School of Food and Nutritional Sciences, University of Shizuoka, Shizuoka, Japan
1999-2001	Senior Reseaher, Institute of Environmental Ecology Metocean Environmental Inc.
1997-1999	Researcher, Department of Water Supply Engineering National Institute of Public Health
1995-1997	Researcher, Institute of Environmental Chemistry, Shin-Nippon Meteorological & Oceanographical Consultant Co.,

◆ **Papers (2020- Present)**

- 1) Shimamura Y, Horiike H, Yui T, and **Masuda S.**: Altered toxicity of *Staphylococcus aureus* and its membrane vesicles following ethanol and glycidol exposure. *The Microbe* (Accepted: February 17, 2025)
- 2) Uehara Y, Shimamura Y, Takemura C, Suzuki S, and **Masuda S.**: Effects of cosmetic ingredients on growth and virulence factor expression in *Staphylococcus aureus*: a comparison between culture medium and in vitro skin model medium. *AIMS Microbiol.* **11(1)**: 22–39 (2025).
- 3) Shimamura Y, Yui T, Tano K, Nakanishi Y, Yamamoto Y, Matsui-Ito Y, Homma S, and **Masuda S.**: Isolation and characterization of lactic acid bacteria isolates that degrade Maillard reaction products from coffee. *Food Sci. Technol. Res.* **31(1)**: 47–58 (2025).
- 4) Oura Y, Shimamura Y, Kan T, and **Masuda S.**: Effect of polyphenols on inflammation induced by membrane vesicles from *Staphylococcus aureus*. *Cells* **13(5)**: 387 (2024).
- 5) Shimamura Y, Miyazaki M, Sawaki S, Inagaki R, Honda H, and **Masuda S.**: Formation of glycidol fatty acid esters and 3-monochloro-1,2-propanediol fatty acid esters in heated foods. *J. Food Meas. Charact.* **18(3)**: 2268–2279 (2024).
- 6) Shimamura Y, Oura Y, Tsuchiya M, Yamanashi Y, Ogasawara A, Oishi M, Komuro M, Sasaki K, and **Masuda S.**: Slightly acidic electrolyzed water inhibits inflammation induced by membrane vesicles of *Staphylococcus aureus*. *Front. Microbiol.* **14**: 1328055 (2024).
- 7) Shimamura Y, Wada Y, Tashiro M, Honda H, and **Masuda S.**: A comparison of the exposure system of glycidol-related chemicals on the formation of glycidol-hemoglobin adducts. *Food Sci. Nutr.* **12(1)**: 471–480 (2023).
- 8) Shimamura Y, Noaki R, Oura Y, Ichikawa K, Kan T, and **Masuda S.**: Regulation of staphylococcal enterotoxin-induced inflammation in spleen cells from diabetic mice by polyphenols. *Microorganisms*, **11(4)**: 1039 (2023).
- 9) Shimamura Y, Inagaki R, Oike M, Wada Y, Honda H, and **Masuda S.**: Potential role of lipase activity on the internal exposure assessment of glycidol released from its fatty acid esters. *Toxics*, **11(2)**: 175 (2023).
- 10) Shimamura Y, Yui T, Horiike H, and **Masuda S.**: Toxicity of combined exposure to acrylamide and *Staphylococcus aureus*. *Toxicol. Rep.*, **9**: 876–882 (2022).
- 11) Mukaide K, Shimamura Y, **Masuda S.**, Vongsak B, and Kumazawa S.: Antibacterial and antibiofilm activities of Thailand propolis against *Escherichia coli*. *Nat. Prod. Commun.*,

- 17(4): 1–5 (2022).
- 12) Deguchi Y, Toyoizumi T, Nagaoka H, and **Masuda S.**: Assessment of genotoxicity of 2-[2-(acetylamino)-4-[bis(2-hydroxyethyl)amino]-5-methoxyphenyl]-5-amino-7-bromo-4-chloro-2H-benzotriazole (PBTA-6) in zebrafish (*Danio rerio*) using the comet assay and micronucleus test. *Fundam. Toxicol. Sci.*, **9(6)**: 173-178 (2022).
 - 13) Noda K, Ando H, Tada K, Satake M, Nakauchi F, Tsutsuura S, Shimamura Y, **Masuda S.** and Murata M.: Acrylamide formation during pan-frying of mung bean sprouts. *Food Sci. Technol. Res.*, 28(4): 307–315 (2022).
 - 14) Yamanashi Y, Shimamura Y, Sasahara H, Komuro M, Sasaki K, Morimitsu Y, and **Masuda S.**: Effects of growth stage on the characterization of enterotoxin A-producing *Staphylococcus aureus*-derived membrane vesicles. *Microorganisms*, 10(3): 574 (2022).
 - 15) Shimamura Y, Okuda A, Ichikawa K, Inagaki R, Ito S, Honda H, and **Masuda S.**: Factors influencing the formation of chemical–hemoglobin adducts, *Toxics*, 10(1): 2 (2022).
 - 16) Shimamura Y, Inagaki R, Oike M, Dong B, Gong W, and **Masuda S.**: Glycidol fatty acid ester and 3-monochloropropane-1,2-diol fatty acid ester in commercially prepared foods. *Foods*, 10(12): 2905 (2021).
 - 17) Shimamura Y, Noaki R, Kurokawa A, Utsumi M, Hirai C, Kan T, and **Masuda S.**: Effect of (–)-epigallocatechin gallate on activation of JAK/STAT signaling pathway by staphylococcal enterotoxin A. *Toxins*, 13(9): 609 (2021).
 - 18) Kobayashi T, Toyoda T, Tajima Y, Kishimoto S, Tsunematsu Y, Sato M, Matsushita K, Yamada T, Shimamura Y, **Masuda S.** Ochiai M, Ogawa K, Watanabe K, Takamura-Enya T, Totsuka Y, Wakabayashi K, and Miyoshi N.: o-Anisidine dimer, 2-methoxy-N⁴-(2-methoxyphenyl) benzene-1,4-diamine, in rat urine associated with urinary bladder carcinogenesis. *Chem. Res. Toxicol.*, 34(3): 912-919 (2021).
 - 19) Shimamura Y, Sei S, Nomura S, and **Masuda S.**: Protective effects of dried mature *Citrus unshiu* peel (Chenpi) and hesperidin on aspirin-induced oxidative damage. *J. Clin. Biochem. Nutr.*, 68(2): 149-155 (2021).
 - 20) Shimamura Y, Inagaki R, Honda H, and **Masuda S.**: Does external exposure of glycidol-related chemicals influence the forming of the hemoglobin adduct, N-(2,3-dihydroxypropyl)valine, as a biomarker of internal exposure to Glycidol? *Toxics*, **8**: 119 (2020).
 - 21) Shimamura Y, Shibata M, Sato M, Nagai R, Yang P, Shiokawa K, Kikuchi H, and **Masuda S.**: Anti-hyperglycemic activity and inhibition of advanced glycation end products by

Lonicera japonica Thunb. in streptozotocin-induced diabetic rats. *Food Sci. Technol. Res.*, **26(6)**: 825-835 (2020).

- 22) Shimamura Y, Shinke M, Hiraishi M, Tsuchiya Y, Egawa M, Ohashi N, and **Masuda S.**: Influence of muscle fiber direction on migration of *Salmonella* Enteritidis, *Staphylococcus aureus*, and *Escherichia coli* into raw chicken breast. *J. Food Prot.*, **83(6)**: 928-934 (2020).
- 23) Shimamura Y, Utsumi M, Hirai C, Kurokawa A, Kan T, Ohashi N, and **Masuda S.**: Effect of (–)-epigallocatechin gallate to staphylococcal enterotoxin A on toxin activity. *Molecules*, **25(8)**: 1867 (2020).

◆ Chief Literary Works (2013- Present)

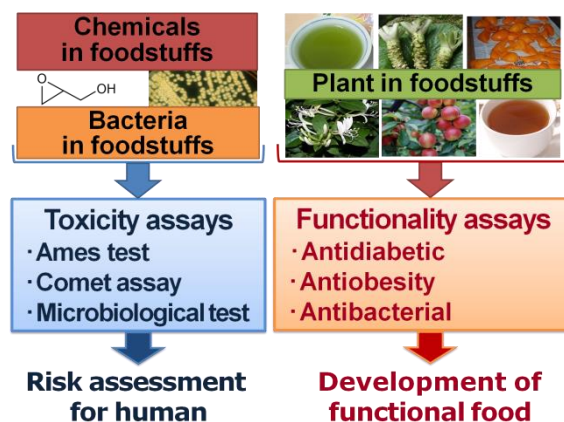
- 1) **Masuda S**, Shimamura Y: Chapter 26. Radioprotective Effects of Green Tea, Health Benefits of Green Tea. An Evidence-based Approach, CABI, 220-229 (2017).
- 2) **Masuda S**, Shimamura Y: 10. Radioprotective effects of green tea, Scientific evidence for the health benefits of green tea, Japan Tea Central Public Interest Incorporated Association, 162-172 (2015).
- 3) **Masuda S**, Shimamura Y, Shimoi K, and Kinae N: Radioactive Contamination and Radioprotective Activity of Green Tea, *Foods & Food Ingredients Journal of Japan*. 218(3): 224-233 (2013).

Research objectives

Our laboratory studies the genotoxicity and functionality of substances in foodstuffs using various evaluation systems in vitro and in vivo. In addition, we propose novel control methods to reduce food-poisoning.

◆ Present Research

- 1) Risk assessment of chemicals in foodstuff
- 2) Development of novel control methods to reduce food-poisoning
- 3) Biological functions of plant food and their application to food and beverages



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