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Curriculum Vitae

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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.,

Publication

◆ Papers (2017- Present)

- 1) 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*, Published: 06 March 2022.
- 2) 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).
- 3) 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).
- 4) 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).
- 5) 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-*N*⁴-(2-methoxyphenyl) benzene-1,4-diamine, in rat urine associated with urinary bladder carcinogenesis. *Chem. Res. Toxicol.*, 34(3): 912-919 (2021).
- 6) 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).
- 7) 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).
- 8) 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).
- 9) 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).
- 10) 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).
- 11) Inagaki R, Uchino K, Shimamura Y, and **Masuda S.**: Investigation of DNA damage of glycidol and glycidol fatty acid esters using Fpg-modified comet assay. *Fundam. Toxicol. Sci.*, **6(1)**: 9-14 (2019).
 - 12) Inagaki R, Ito F, Shimamura Y, and **Masuda S.**: Effect of chloride on the formation of 3-monochloro-1, 2-propanediol fatty acid diesters and glycidol fatty acid esters in fish, meats and acylglycerols during heating. *Food. Addit. Contam. A*, **36(2)**: 236-243 (2019).
 - 13) Su H, Sato A, Onoda E, Fujita H, Sakabe S, Akachi S, Oishi S., Abe F, Kanda T, Shimamura Y, **Masuda S.** and Ohashi N.: Molecular detection and characterization of p44/msp2 multigene family of *Anaplasma phagocytophilum* from haemaphysalis longicornis in Mie prefecture, Japan. *Jpn. J. Infect. Dis.*, **72(3)**: 199-202 (2019).
 - 14) Gaowa, Wulantuya, Yin X, Guo S, Ding C, Cao M, Kawabata H, Sato K, Ando S, Fujita H, Kawamori F, Su H, Shimada M, Shimamura Y, **Masuda S**, Ohashi N. Spotted Fever Group *Rickettsia* in Inner Mongolia, China, 2015-2016. *Emerg. Infect. Dis. Emerg. Infect. Dis.*, **24(11)**: 2105-2107 (2018).
 - 15) Shimamura Y, Utsumi M, Hirai C, Nakano S, Ito S, Tsuji A, Ishii T, Hosoya T, Kan T, Ohashi N, and **Masuda S.**: Binding of catechins to staphylococcal enterotoxin A. *Molecules*, **23(5)**: 1125 (2018).
 - 16) Kawamori F, Shimazu Y, Sato H, Monma N, Ikegaya A, Yamamoto S, Fujita H, Morita H, Tamaki Y, Takamoto N, Su H, Shimada M, Shimamura Y, **Masuda S**, Ando S, Ohashi N.: Evaluation of diagnostic assay for Rickettsioses using duplex real-time PCR in multiple laboratories in Japan. *Jpn. J. Infect. Dis*, **71(4)**: 267-273 (2018).
 - 17) Kyoya T, Iwamoto R, Shimanura Y, Terada M, and **Masuda S.**: Assessment of bladder DNA damage due to 2-acetylaminofluorene, diuron, and terephthalic acid by the rat comet assay. *Fundam. Toxicol. Sci.*, **5(1)**: 63-69 (2018).
 - 18) Kyoya T, Iwamoto R, Shimanura Y, Terada M, and **Masuda S.**: The effect of different methods and image analyzers on the results of the in vivo comet assay. *Genes Environ.*, **40(1)**: 4 (2018).
 - 19) Gaowa, Wulantuya, Yin X, Cao M, Guo S, Ding C, Yuhua L, Jianchang L, Kawabata H, Ando S, Su H, Shimada M, Takamoto N, Shimamura Y, **Masuda S**, and Ohashi N.: Human Infection with *Anaplasma phagocytophilum* in Inner Mongolia, China. *Jpn. J. Infect. Dis.*, **71(2)**: 2105-2107 (2018).

- 20) Masumura K, and **Masuda S.**: Research on environmental mutagenesis from young scientists—the open symposium of the Japanese environmental mutagen society (JEMS) in 2017. *Genes Environ.*, **39**: 26 (2017).
- 21) Shimamura Y, Hirai C, Sugiyama Y, Shibata M, Ozaki J, Murata M, Ohashi N, and **Masuda S.**: Inhibitory effects of food additives derived from polyphenols on staphylococcal enterotoxin A production and biofilm formation by *Staphylococcus aureus*. *Biosci. Biotechnol. Biochem.*, **81(12)**: 2346-2352 (2017).
- 22) Shimamura Y, Hirai C, Sugiyama Y, Utsumi M, Yanagida A, Murata M, Ohashi N, and **Masuda S.**: Interaction between various apple procyanidin and staphylococcal enterotoxin A and their inhibitory effects on toxin activity. *Toxins*, **9(8)**: 243 (2017).
- 23) **Masuda S.**, Masuda H, Shimamura Y, Sugiyama C, and Takabayashi F.: Improvement effects of wasabi (*Wasabia japonica*) leaves and allyl isothiocyanate on stomach lesions of mongolian gerbils infected with *Helicobacter pylori*. *Nat. Prod. Commun.*, **12(4)**: 595-598 (2017).
- 24) Uehara Y, Ishizuka K, Shimamura Y, Yasuda Y, Shimoi K, and **Masuda S.**: Adsorptive property of food materials and chemicals to cesium and strontium. *Nat. Prod. Commun.*, **12(2)**: 263-265 (2017).
- 25) Shimamura Y, Iio M, Urahira T, **Masuda S.**: Inhibitory effects of Japanese horseradish (*Wasabia japonica*) on the formation and genotoxicity of a potent carcinogen, acrylamide. *J. Sci. Food Agric.*, **97(8)**: 2419-2425 (2017).

◆ **Chief Literary Works (2013- Present)**

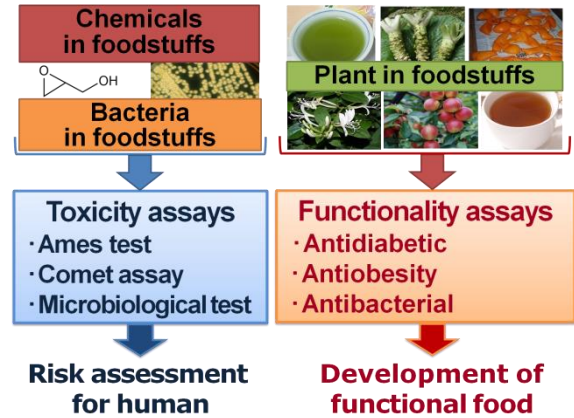
- 1) **Masuda S.**, Shimamura Y: Chapter 26. Radioprotective Effects of Green Tea, Health Benefits of Green Tea. An Evidence-based Approach, CABI, 220-229 (2017).
- 2) **Masuda S.**, Shimamura Y: 10. Radioprotective effects of green tea, Scientific evidence for the health benefits of green tea, Japan 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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