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Curriculum Vitae

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Position: Assistant Professor

Laboratory: Laboratory of Food Hygiene

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Education

Ph.D. 2007,	Ochanomizu University, Tokyo, Japan
	Human Environmental Science, Humanities and Science
M.S. 2004,	Ochanomizu University, Tokyo, Japan
	Department of Lifescience, Humanities and Science
B.A. 2002,	Gakushuin Women's College, Tokyo, Japan
	Faculty of International Cultural Communications

Experience

2011-Present	Assistant Professor, School of Food and Nutritional Sciences, University of Shizuoka, Shizuoka, Japan
2008-2011	Postdoctoral Fellow, Institute of Environmental Science for Human Life, Ochanomizu University, Tokyo, Japan
2007-2008	Postdoctoral Fellow, Graduate School of Humanities and Sciences, Ochanomizu University, Tokyo, Japan

Publication

◆ ***Papers (2019- Present)***

1) **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*. 1-12 (2024).

2) **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 (2023).

3) **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*. (2023) First published: 30 October 2023

4) **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).
5) **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).
6) **Shimamura Y**, Yui T, Horiike H, and Masuda S.: Toxicity of combined exposure to acrylamide and *Staphylococcus aureus*. *Toxicol. Rep*., **9**: 876–882 (2022).
7) 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).
8) 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).
9) 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). [#]equal contribution
10) Kitayama S, Igoshi A, **Shimamura Y**, Noda K, and Murata M.: Formation scheme and some properties of a thiamine-derived pigment, pyrizepine, formed through the Maillard reaction. *Biosci. Biotechnol. Biochem*., **86(5)**: 672–680 (2022).
11) **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).
12) **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).
13) **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).
14) 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).

15) **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).

16) **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).

17) **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).

18) Noda K, Amano Y, **Shimamura Y**, and Murata M.: Distribution of pyrrolothiazolate, a pigment formed through the Maillard reaction between cysteine and glucose, in foods and beverages and some of its properties. *Food Sci. Technol. Res*., **26(6)**: 735-742 (2020).

19) **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).

20) **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).

21) Matsuzaki K, Iwai K, Yoshikawa Y, **Shimamura Y**, Miyoshi N, Hiramoto S, Asada, K, Fukutomi R, Su, H, and Ohashi N.: Wheat bran intake enhances the secretion of bacteria-binding IgA in a lumen of the intestinal tract by incrementing short chain fatty acid production through modulation of gut microbiota. *Nat. Prod. Commun*., **15(4)**: 1-11 (2020).

22) 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).

23) 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).

24) 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).

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

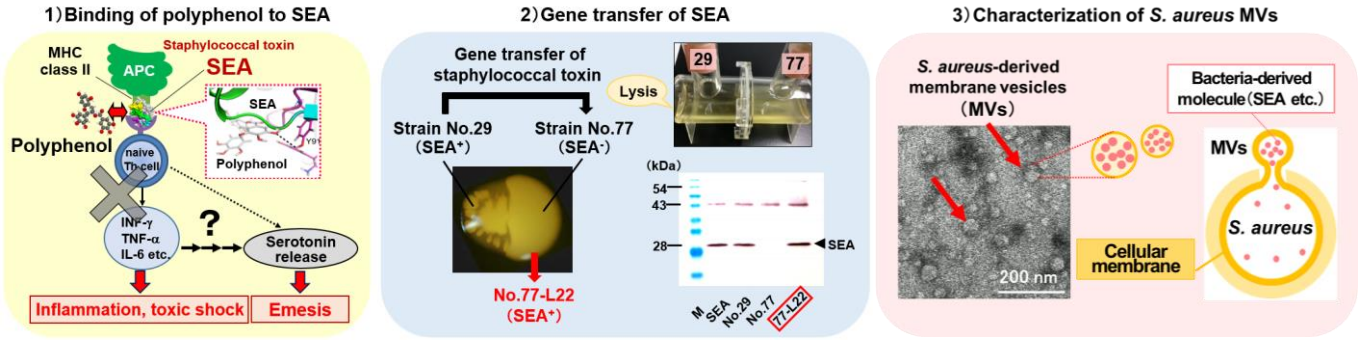
1) Masuda S, **Shimamura Y**: Chapter 26. Radioprotactive Effects of Green Tea, Health Benefits of Green Tea. An Evidence-based Approach, CABI, 220-229 (2017).
2) Masuda S, **Shimamura Y**: 10. Radioprotective effects of green tea, Scientific evidence for the health benefits of green tea, Japan Tea Central Public Interest Incorporated Association, 162-172 (2015).
3) Oguni I and **Shimamura Y**: 1.3. Anti-bacterial and anti-viral actions, ～Health bnefits of green tea～Navigation to functional and mechanistic aspects 2013, World green tea association, 6-8 (2013).
4) 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

The objective of research is to find the novel methods for controlling pathogenic factors and foodborne pathogenic bacteria by molecular-based analysis.

◆ ***Present Research***

1) Development of novel control methods to reduce food-poisoning
2) Molecular characterization of pathogenic factors of *Staphylococcus aureus* and gene transfer of staphylococcal toxin
3) Molecular characterization of *Staphylococcus aureus*-derived membrane vesicles



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