Reiya Yamashita, Ph. D.

(December 4, 2025)

Current Position:

Assistant Professor

Laboratory of Molecular Pharmacotherapeutics, Faculty of Pharmacy,

Institute of Medical, Pharmaceutical and Health Sciences,

Date and Place of Birth:

April 14, 1997, Takayama-city, Gifu-Pref. Japan

Present Address:

Faculty of Pharmacy,

Institute of Medical, Pharmaceutical and Health Sciences,

Kanazawa University

Kakuma-machi, Kanazawa 920-1192, Japan

[TEL] +81-76-264-6302 [FAX] +81-76-264-6302

[E-mail] r-yamashita@p.kanazawa-u.ac.jp

Education:

Kanazawa University, B.S. 2020 Pharmaceutical Sciences

Kanazawa University, M.S. 2022 Pharmaceutical Sciences

Kanazawa University, Ph. D. 2025 Pharmaceutical Sciences

Society/Membership:

(1) Japanese Pharmacological Society (JPS)

(2) American Society for Pharmacology and Experimental Therapeutics (ASPET)

(3) The Japanese Society for the Study of Xenobiotics (JSSX)

(4) The Japanese Society for Neurochemistry

Major Research Interests:

(1) Understanding the pharmacokinetics of food-derived compounds and their effects on the brain

(2) Target identification of food-derived compounds using omics approaches and their application to drug discovery

Skills:

- Molecular Biology: qPCR, Western blotting, immunohistochemistry, ELISA
- Animal Experiments: Stereotaxic injection, behavioral tests
- Biochemical Analysis: LC–MS/MS
- Simulation: PBPK modeling

Grants:

2022 Informatics and AI for interdisciplinary research in information and medical sciences

Awards and Honors:

The 96th Annual Meeting of the Japanese Pharmacological Society
Annual Meeting Excellent Presentation Award

Publications:

(1) Nishioka K, Ishimoto T, Katsube M, Yamada S, Araragi Y, **Yamashita R**, Kato Y. Characteristics of ergothioneine distribution across skeletal muscles and adipose tissues. *BBRC* **776**: 152210, 2025.
(2) Ishimoto T, Hayashi F, Yamamoto Y, Kiriyama K, **Yamashita R**, Matsumura N, Nishiuchi T, Masuo Y, Fujita M, Sutoh K, Kato Y. Trideoxycytidine diphosphate promotes neural stem cell proliferation and neurogenesis in mice. *J Nutr* **155**(2): 643-654, 2025.
(3) Hanayama M, Ishimoto T, Moritomo A, **Yamashita R**, Kawai J, Mori K, Kato Y. Protective effects of pleurotus species on uvb-induced skin disorders at clinically relevant plasma concentrations of the antioxidant ergothioneine in hairless mice. *Biol Pharm Bull* **48**(5): 672-681, 2025.
(4) Okumura H, Araragi Y, Nishioka K, **Yamashita R**, Suzuki T, Watanabe H, Kato Y, Murayama N. Estimation and validation of an effective ergothioneine dose for improved sleep quality using physiologically based pharmacokinetic model. *Food Sci Nutr* **13**(6): e70382, 2025.
(5) Ishimoto T, **Yamashita R**, Matsumoto R, Matsumoto S, Matsuo Y, Nakao S, Masuo Y, Suzuki M, Kato Y. TrkB phosphorylation in serum extracellular vesicles correlates with cognitive function enhanced by ergothioneine in humans. *npj Sci Food* **8**(1): 11, 2024.
(6) Alshammari AH, Masuo Y, Yoshino S, **Yamashita R**, Ishimoto T, Fujita K, Kato Y. Adeno-associated virus-mediated knockdown demonstrates the major role of hepatic bcrp in the overall disposition of the active metabolite of the tyrosine kinase inhibitor regorafenib in mice. *Drug Metabol Pharmacokinet* **49**: 100483, 2023.