

Curriculum Vitae

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Education

- **Ph.D in Agriculture** **2021 March**
University of Miyazaki, Miyazaki, Japan
Interdisciplinary Graduate School of Agriculture and Engineering
- **M.A in Agriculture** **2018 March**
University of Miyazaki, Miyazaki, Japan
National Course of Agriculture, Graduate School of Agriculture
- **B.A in Agriculture** **2016 March**
University of Miyazaki, Miyazaki, Japan
Department of Marine Biology and Environmental Sciences, Faculty of Agriculture

Research fellowships

- JSPS's Overseas Research Fellowships **2021 Jun-2023 Jun**
- JSPS's Research Fellowships for Young Scientists (DC2) **2019 Apr-2021 Mar**

Professional Experience

- Senior Fellow in Department of Immunology, School of Medicine,
University of Washington **2021 June-2024 Mar**
- Assistant Technical Staff in Department of Neuroscience,
Faculty of Medicine, University of Miyazaki, Japan **2014 Apr-2017 Mar**

Publications

1. **Yo Okamura**, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Evolutional perspective and functional characteristics of interleukin-17 in teleosts., *Fish and Shellfish Immunology*, 132 108496, 2023.
2. **Yo Okamura**, Masato Kinoshita, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Deficiency of interleukin-17 receptor A1 induces microbiota disruption in the intestine of Japanese medaka, *Oryzias*

latipes., Comparative Biochemistry and Physiology Part-D: Genomics and Proteomics, 40 100885, 2021.

3. **Yo Okamura**, Hiroshi Miyanishi, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Identification and expression of phospholipase A2 genes related to transcriptional control in the interleukin-17A/F1 pathway in the intestines of Japanese medaka *Oryzias latipes.*, Fish and Shellfish Immunology Reports, 2 100028, 2021.
4. Nanaki Harada, **Yo Okamura**, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Identification of two interleukin 17 receptor C (IL-17RC) genes and their binding activities to three IL-17A/F ligands in the Japanese medaka, *Oryzias latipes.*, Developmental and Comparative Immunology (DCI), 124 1041179, 2021.
5. Yoshie Takahashi*, **Yo Okamura***, Nanaki Harada, Mika Watanabe, Hiroshi Miyanishi, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Interleukin-22 Deficiency Contributes to Dextran Sulfate Sodium-Induced Inflammation in Japanese Medaka, *Oryzias latipes.*, Frontiers in immunology, 12 688036, 2021. (*; Equal first-author contribution to a published work)
6. **Yo Okamura**, Hiroshi Miyanishi, Masato Kinoshita, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., A defective interleukin-17 receptor A1 causes weight loss and intestinal metabolism-related gene downregulation in Japanese medaka, *Oryzias latipes.*, Scientific Reports, 11(1) 12099, 2021.
7. Natsuki Morimoto, **Yo Okamura**, Shun Maekawa, Han-Ching Wang, Takashi Aoki, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Characterization and expression analysis of tandemly-replicated asc genes in the Japanese medaka, *Oryzias latipes.*, Developmental and Comparative Immunology (DCI), 115 103894, 2021.
8. Natsuki Morimoto, **Yo Okamura**, Shun Maekawa, Han-Ching Wang, Takashi Aoki, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., ASC-deficiency impairs host defense against *Aeromonas hydrophila* infection in Japanese medaka, *Oryzias latipes.*, Fish and Shellfish Immunology, 105 427-437, 2020.
9. Yoshie Takahashi*, **Yo Okamura***, Natsuki Morimoto, Koshin Mihara, Shun Maekawa, Han-Ching Wang, Takashi Aoki, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima., Interleukin-17A/F1 from Japanese pufferfish (*Takifugu rubripes*) stimulates the immune response in head kidney and intestinal cells., Fish and Shellfish Immunology., 103 143-149, 2020. (*; Equal first-author contribution to a published work)
10. **Yo Okamura**, Natsuki Morimoto, Daisuke Ikeda, Nanami Mizusawa, Shugo Watabe, Hiroshi Miyanishi, Yuichi Saeki, Haruko Takeyama, Takashi Aoki, Masato Kinoshita, Tomoya Kono, Masahiro Sakai, Jun-

ichi Hikima., Interleukin-17A/F1 Deficiency Reduces Antimicrobial Gene Expression and Contributes to Microbiome Alterations in Intestines of Japanese medaka (*Oryzias latipes*)., *Frontiers in immunology*, 11 425, 2020.

11. **Yo Okamura**, Natsuki Morimoto, Shuzo Sawada, Tomoya Kono, Jun-ichi Hikima, Masahiro Sakai, Molecular characterization and expression of two interleukin-17 receptor A genes on different chromosomes in Japanese medaka, *Oryzias latipes*, *Comparative Biochemistry and Physiology Part - B: Biochemistry and Molecular Biology*, 240 110386, 2020.
12. Gehad E. Elshopakey, Engy F. Risha, Osama A. Abdalla, **Yo Okamura**, Seiyu Harada, Shinsuke Kishida, Yoshinori Matsuura, Raja Sudhakaran, Toshiaki Itami., Efficacy of dietary fermented vegetable product on immune response, up-regulation of immune-related genes and protection of kuruma shrimp (*Marsupenaeus japonicus*) against *Vibrio parahaemolyticus*., *Aquaculture*, 497 431-439, 2018.
13. **Yo Okamura**, Mari Inada, Gehad E Elshopakey, Toshiaki Itami., Characterization of xanthine dehydrogenase and aldehyde oxidase of *Marsupenaeus japonicus* and their response to microbial pathogen., *Molecular Biology Reports*, 45(4) 419-432, 2018.
14. **Yo Okamura**, Tohru Mekata, Gehad E Elshopakey, Toshiaki Itami., Molecular characterization and gene expression analysis of hypoxia-inducible factor and its inhibitory factors in kuruma shrimp *Marsupenaeus japonicus*., *Fish and Shellfish Immunology*, 79 168-174, 2018.
15. Gehad E Elshopakey, Engy F Risha, Osama A.M Abdalla, **Yo Okamura**, Vuduc Hanh, Masahisa Ibuki, Raja Sudhakaran, Toshiaki Itami., Enhancement of immune response and resistance against *Vibrio parahaemolyticus* in kuruma shrimp (*Marsupenaeus japonicus*) by dietary supplementation of β -1,4-mannobiose., *Fish and Shellfish Immunology*, 74 26-34, 2018.

COMMERCIAL BOOK

1. Kaoru Hamano, Jun Sato, Takuji Okumura, **Yo Okamura**, Jun-ichi Hikima, *Aquaculture Technology Course of Kuruma shrimp: Seedlings-SPF Kuruma shrimp seedling preparation manual*, *Monthly aquaculture business*, Midorisyobou, 54, 50-54, 2017.

PRESENTATIONS

● International conference

Oral presentations ◦: presenter

1. ◦**Yo Okamura**, Natsuki Morimoto, Masato Kinoshita, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima, "Establishment of interleukin 17 receptor A (RA) deficient medaka (*Oryzias latipes*) using CRISPR-Cas9 system", Joint Conference of the 12th International Marine Biotechnology Conference and the 12th Asia Pacific Marine Biotechnology Conference, Shimizu, Shizuoka, Japan, September 9–13, 2019.

2. [○]**Yo Okamura**, Natsuki Morimoto, Masato Kinoshita, Takashi Aoki, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima, "Metagenome analysis of intestinal flora in the IL-17A/F1-knockout medaka", 3rd International Conference of Fish & Shellfish Immunology, Las Palmas, Gran Canaria, Spain, June 16-21, 2019.
3. [○]**Yo Okamura**, Toru Mekata, Vu Duc Hanh, Gehad E.A.E Elshopakey, Toshiaki Itami, "Characterization of Hypoxia Inducible Factor Gene and Related Genes in Kuruma Shrimp, *Marsupenaeus japonicus*", The 10th IMT-GT UNINET Conference 2016 (BTJ-P003), Prince of Songkla University, Hat Yai, Thailand, December 1, 2016.

Poster presentations [○]: presenter

1. [○]Natsuki Morimoto, **Yo Okamura**, Shun Maekawa, Hang-Chin Wang, Takashi Aoki, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima, "Immune responses to bacterial infection in an ASC-mutated Japanese medaka (*Oryzias latipes*) established by CRISPR-Cas9 system", Joint Conference of the 12th International Marine Biotechnology Conference and the 12th Asia Pacific Marine Biotechnology Conference, Shimizu, Shizuoka, Japan, September 9–13, 2019.
2. [○]Masahiro Sakai, **Yo Okamura**, Natsuki Morimoto, Tomoya Kono, Jun-ichi Hikima, "IL-17A/F1 deficiency down-regulates immune-related gene expression and changes to intestinal flora in Japanese medaka (*Oryzias latipes*)", 7th Annual Meeting of the International Cytokine & Interferon Society, October 20-23, 2019.
3. **Yo Okamura**, Natsuki Morimoto, Haruko Takeyama, Takashi Aoki, Tomoya Kono, Jun-ichi Hikima, [○]Masahiro Sakai, "IL-17A/F1 modulates production of antimicrobial peptides in the intestine of Japanese medaka, *Oryzias latipes*", 8th International Symposium on Aquatic Animal Health, Charlottetown, PEI, Canada, September 2-6, 2018.
4. **Yo Okamura**, Mari Inada, [○]Toshiaki Itami, "Ros generating genes of kuruma shrimp *Marsupenaeus japonicus*: Xanthine dehydrogenase and Aldehydeoxidase, and their gene expression analyses, Aquaculture America 2018, Las Vegas, Nevada, America, February 19-22, 2018.

● National conference in Japan

Oral presentations

1. [○]**Yo Okamura**, Masato Kinoshita, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima, "Transcriptome analysis of interleukin-17 receptor A mutant medaka in intestine", The 2020 spring meeting of the Japanese Society of Fisheries Science, Tokyo University of Marine Science and Technology, Tokyo, March 26-30, 2020.
2. [○]**Yo Okamura**, Masato Kinoshita, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima, "The establishment of interleukin-17 receptor A mutant medaka", The 2019 spring meeting of the Japanese Society of Fisheries Science, Tokyo University of Marine Science and Technology, Tokyo, March 26-29, 2019.
3. [○]**Yo Okamura**, Natsuki Morimoto, Nayu Kawashima, Goshi Kato, Tomoya Kono, Masahiro Sakai, Jun-ichi Hikima, "Characterization of interleukin-17 receptor A gene and its expression analysis in intestine of Japanese medaka, *Oryzias latipes*", The 2018 autumn meeting of the Japanese Society of Fisheries Science, Hiroshima University, Hiroshima, September 15-18, 2018.
4. [○]**Yo Okamura**, Tohru Mekata, Mari Inada, Narantsog Choijookhuu, Yoshitaka Hishikawa, Jun-ichi Hikima, Masahiro Sakai, Toshiaki Itami, "Identification of HIF pathway-related genes in *Marsupenaeus japonicus* and elucidation of the pathway activation mechanism by hypoxic exposure", The 20th Annual Meeting of the Japanese Society for Marine Biotechnology, University of Miyazaki, Miyazaki, May 26-27, 2018.

5. [○]**Yo Okamura**, Tohru Mekata, Mari Inada, Toshiaki Itami, "Expression dynamics of HIF-related genes during hypoxic stress or VHL (Von Hippel-Lindau) knockdown of *Marsupenaeus japonicus*", The 2017 autumn meeting of the Japanese Society of Fish Pathology, University of Miyazaki, Miyazaki, September 12-13, 2017.

Poster presentations

1. [○]**Yo Okamura**, Tohru Mekata, Mari Inada, Narantsog Choijookhuu, Yoshitaka Hishikawa, Toshiaki Itami, "Identification of HIF (hypoxia-inducible factor) pathway-related genes in *Marsupenaeus japonicus* and proof of localization in the intestinal tract", The 2018 spring meeting of the Japanese Society of Fish Pathology, Tokyo University of Marine Science and Technology, Tokyo, March 3-4, 2018.
2. Akito Tsuchiya, [○]**Yo Okamura**, Yoshie Takahashi, Toshiaki Itami, "Identification and expression kinetics of cell cycle checkpoint-related genes in *Marsupenaeus japonicus*", The 2018 spring meeting of the Japanese Society of Fish Pathology, Tokyo University of Marine Science and Technology, Tokyo, March 3-4, 2018.
3. [○]**Yo Okamura**, Mari Inada, Toshiaki Itami, "Identification of xanthine dehydrogenase and aldehyde oxidase genes and its gene expression dynamics during microbial infection in *Marsupenaeus japonicus*", The 2017 autumn meeting of the Japanese Society of Fish Pathology, University of Miyazaki, Miyazaki, September 12-13, 2017.
4. Takumu Sueyoshi, **Yo Okamura**, Kiyoshi Okihara, Kiyosuke Harada, [○]Toshiaki Itami, "Preventive effect against microbial infection of Kuruma shrimp by oral administration of fermented vegetable products (FVP)", The 2017 autumn meeting of the Japanese Society of Fish Pathology, University of Miyazaki, Miyazaki, September 12-13, 2017.
5. [○]**Yo Okamura**, Tohru Mekata, Mari Inada, Toshiaki Itami, "Dynamics of HIF (hypoxia-inducing factor) gene and related genes against hypoxia in *Marsupenaeus japonicus*", The 2017 spring meeting of the Japanese Society of Fish Pathology, Nihon University, Kanagawa, March 11-12, 2017.

REFERENCES

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