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Curriculum Vitae

Taichi Chisuga, Ph. D., Research Assistant Professor

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Affiliation: Laboratory of Food Bioinformatics, Department of Food and Nutritional Science, University of Shizuoka, Shizuoka, 422-8526, Japan

-- Education --

2018.09 - 2022.09: **Ph. D.**, Department of Chemistry, School of Scinece, **Tokyo Institute of Technology**

2015.04 - 2017.03: **M. Sc.**, Department of Chemistry and Materials Science, Graduate School of Science and Engineering, **Tokyo Institute of Technology**

2011.04 - 2015.03: **B. Sc.**, Department of Chemistry, School of Scinece, **Tokyo Institute of Technology**

-- Employment --

2023.04 - present: **University of Shizuoka**, Department of Food and Nutritional Science, Assistant Professor

2022.10 - 2023.03: **Tokyo Institute of Technology**, Department of Chemistry, School of Science, Postdoctoral Fellow.

2017.04 - 2018.08: **Sekisui Chemical Co. Ltd.**, R&D Center, Researcher

-- Fellowships --

2020.04 - 2022.03: JSPS Research Fellowship for Young Scientists

-- Research Interest --

・Precise structural and functional analysis of biosynthetic enzymes.

・Modification of biosynthetic enzymes based on data science and production of materials utilizing these modified enzymes.

-- Publication List --

1. Fumitaka Kudo, Takuji Chikuma, Mizuki Nambu, Taichi Chisuga, Simpei Sumimoto, Arihiro Iwasaki, Kiyotake Suenaga, Akimasa Miyanaga and Tadashi Eguchi. Unique Initiation and Termination Mechanisms Involved in the Biosynthesis of a Hybrid Polyketide-Nonribosomal Peptide Lyngbyapeptin B Produced by the Marine Cyanobacterium *Moorena bouillonii*, *ACS. Chem. Biol*, (2023). -------.
2. Akimasa Miyanaga, Koichi Kawada, Taichi Chisuga, Fumitaka Kudo and Tadashi Eguchi. Structural Basis of Transient Interactions of Acyltransferase VinK with the Loading Acyl Carrier Protein of the Vicenistatin Modular Polyketide Synthase, *Biochemistry*, **62**(1), 17-21 (2022).
3. Taichi Chisuga, Akimasa Miyanaga and Tadashi Eguchi. Protein-Protein Recognition Involved in the Intermodular Transacylation Reaction in Modular Polyketide Synthase in the Biosynthesis of Vicenistatin, *ChemBioChem*, **23**(14), e202200200 (2022).
4. Taichi Chisuga, Akira Nagai, Akimasa Miyanaga*, Ena Goto, Kosuke Kishikawa, Fumitaka Kudo and Tadashi Eguchi. Structural Insight into the Reaction Mechanism of Ketosynthase-Like Decarboxylase in a Loading Module of Modular Polyketide Synthases, *ACS. Chem. Biol,* **7**(1), 198-206 (2022).
5. Akimasa Miyanaga, Shohei Kurihara, Taichi Chisuga, Fumitaka Kudo and Tadashi Eguchi. Structural Characterization of Complex of Adenylation Domain and Carrier Protein by Using Pantetheine Cross-Linking Probe, *ACS. Chem. Biol.*, **15**(7),1808-1812 (2020).
6. Daisuke Kawasaki, Taichi Chisuga, Akimasa Miyanaga, Fumitaka Kudo and Tadashi Eguchi. Functional and Structural Analysis of Split-Dehydratase Domain in the Biosynthesis of Macrolactam Polyketide Cremimycin, *Biochemistry*, **58**(48), 4799-4803 (2019).
7. Daisuke Kawasaki, Taichi Chisuga, Akimasa Miyanaga, Fumitaka Kudo and Tadashi Eguchi. Structural Analysis of Glycine Oxidase Homologue CmiS2 Reveals Unique Substrate Recognition Mechanism for Formation of a β-Amino Acid Starter Unit in Cremimycin Biosynthesis, *Biochemistry*, **58**(24), 2706-2709 (2019).
8. Taichi Chisuga, Akimasa Miyanaga, Fumitaka Kudo and Tadashi Eguchi. Structural analysis of the dual-function thioesterase SAV606 unravels the mechanism of Michael addition of glycine to an α,β-unsaturated thioester, *J. Biol. Chem.*, **292**(26), 10926-10937 (2017).