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Education/Career

2007.3	B.Sc in School of Engineering Doshisha University (Prof. Yoshihiko Itoh and Tetsuo Ohta)
2009.3	M.Sc in Graduate School of Science Kyoto University (Prof. Kunio Miki)
2012.3	Ph.D (Science) in Graduate School of Science Kyoto University (Prof. Kunio Miki)
2012.4-2013.10	ERATO Project Researcher in Graduate School of Pharmaceutical Sciences ERATO Kanai Life-Science Catalysis Project The University of Tokyo (Prof. Motomu Kanai)
2013.11-present	ERATO Project Research Manager in Graduate School of Pharmaceutical Sciences ERATO Kanai Life-Science Catalysis Project The University of Tokyo (Prof. Motomu Kanai)

Background

structural biology and X-ray crystallography

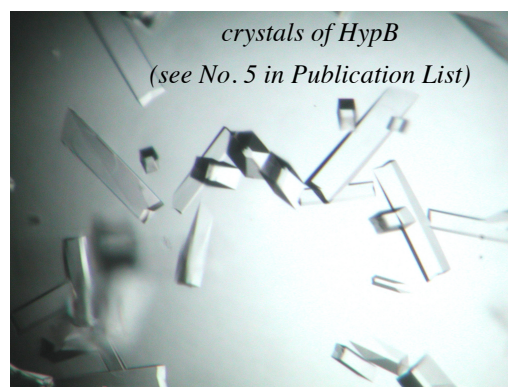
Skills

- ✓ protein expression and purification
- ✓ protein crystallization and structure determination
- ✓ *in silico* molecular design
- ✓ molecular synthesis (solid phase peptide synthesis, asymmetric synthesis)

- ✓ biological technique (western blotting, size exclusion chromatography)
- ✓ cell culture
- ✓ analytical technique (dynamic light scattering, atomic force microscope, circular dichroism)

Publication List

- 1) Daisuke Sasaki, Masahiro Fujihashi, Naomi Okuyama, Yukiko Kobayashi, Motoyoshi Noike, Tanetoshi Koyama, and Kunio Miki, “Crystal structure of heterodimeric hexaprenyl diphosphate synthase from *Micrococcus luteus* B-P 26 reveals that the small subunit is directly involved in the product chain length regulation” *J. Biol. Chem.* **286**, 3729-3740, 2011.
- 2) Daisuke Sasaki, Masahiro Fujihashi, Yuki Iwata, Motomichi Murakami, Tohru Yoshimura, Hisashi Hemmi, and Kunio Miki, “Structure and mutation analyses of archaeal geranylgeranyl reductase” *J. Mol. Biol.* **409**, 543-557, 2011.
- 3) Daisuke Sasaki, Satoshi Watanabe, Tamotsu Kanai, Haruyuki Atomi, Tadayuki Imanaka, and Kunio Miki, “Characterization and in vitro interaction study of a [NiFe] hydrogenase large subunit from the hyperthermophilic archaeon *Thermococcus kodakarensis* KOD1” *Biochem. Biophys. Res. Commun.* **417**, 192-196, 2012.
- 4) Satoshi Watanabe, Daisuke Sasaki, Taiga Tominaga, and Kunio Miki, “Structural basis of [NiFe] hydrogenase maturation by Hyp proteins” *Biol. Chem.* **393**(10), 1089-1100, 2012.
- 5) Daisuke Sasaki, Satoshi Watanabe, Rie Matsumi, Toshihisa Shoji, Ayako Yasukochi, Kenta Tagashira, Wakao Fukuda, Tamotsu Kanai, Haruyuki Atomi, Tadayuki Imanaka, and Kunio Miki, “Identification and structure of a novel archaeal HypB for [NiFe] hydrogenase maturation” *J. Mol. Biol.* **425**(10), 1627-1640, 2013.



- 6) Atsuhiko Taniguchi, Daisuke Sasaki, Azusa Shiohara, Takeshi Iwatsubo, Taisuke Tomita, Youhei Sohma, Motomu Kanai, “Attenuation of the aggregation and neurotoxicity of amyloid- β peptides by catalytic photooxygenation” *Angew. Chem. Int. Ed.* **53**(5), 382-1385, 2014.

- 7) Yohei Seki, Kana Tanabe, Daisuke Sasaki, Youhei Sohma, Kounosuke Oisaki, Motomu Kanai, “Serine-selective aerobic cleavage of peptides and a protein using water-soluble copper organoradical conjugate” *Angew. Chem. Int. Ed. Early View*.
- 8) Tadamasu Arai, Takushi Araya, Daisuke Sasaki, Atsuhiko Taniguchi, Takeshi Sato, Youhei Sohma, Motomu Kanai, “Rational design and identification of non-peptidic aggregation inhibitor of amyloid- β based on a pharmacophore motif obtained from cyclo[-Lys-Leu-Val-Phe-Phe-]” *Angew. Chem. Int. Ed. In press*.