

Curriculum Vitae

Personal Information

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Educations

2012–2015: Ph.D., “Applications of aminoacylation ribozymes that recognize the 3'-end of tRNA via two consecutive base pairs”, Department of Chemistry, Graduate School of Science, The University of Tokyo, Japan
2010–2012 Master of engineering, “In vitro selection of human small non-coding RNA binding to the metabolites”, Department of Chemistry & Biotechnology, Graduate School of Engineering, The University of Tokyo, Japan
2006–2010 Bachelor of engineering, “Functional analysis of the archaeal tRNA modification enzyme, TiaS” Department of Chemistry & Biotechnology, School of Engineering, The University of Tokyo, Japan

Awards

2015–present Long-Term Fellowship of Human Frontier Science Program (HFSP)
2015 Research Incentive Award from Graduate School of Science, The University of Tokyo

- 2012–2015: Research Fellow of the Japan Society of the Promotion of Science (JSPS)
- 2014 Sidney Altman Endowment Travel Award (The 25th tRNA conference)
- 2013 Best presenter award (The 15th annual meeting of the RNA Society of Japan)
- 2013 Travel Grant for Attending the 63rd Lindau Nobel Laureate Meeting from JSPS

Publications

1. Terasaka N., Futai K., Katoh T. & Suga H. A human micro RNA precursor binding to folic acid discovered by small RNA transcriptomic SELEX. *RNA*, **22**, 1918–1928 (2016)
2. Futai K., Terasaka N., Katoh T. & Suga H. tRid, an enabling method to isolate previously inaccessible small RNA fractions. *Methods*, **106**, 105–111 (2016)
3. Terasaka N., Iwane Y., Geiermann AS., Goto Y. & Suga H. Recent developments of engineered translational machineries for the incorporation of non-canonical amino acids into polypeptides. *Int. J. Mol. Sci.*, **16**, 6513–6531 (2015)
4. Terasaka N., Hayashi G., Katoh H. & Suga H. An engineered ribosome-tRNAs pair functions orthogonally to the wild-type under an artificially programmed genetic code. *Nat. Chem. Biol.*, **10**, 555–557. (2014)
“Selected as Greatest hits in *Nature Chemical biology* over the past decade.”
5. Terasaka N. & Suga H. Flexizymes-facilitated genetic code reprogramming leading to the discovery of drug-like peptides. *Chem. Lett.*, **43**, 11–19 (2014).
6. Osawa T., Inanaga H., Kimura S., Terasaka N., Suzuki T. & Numata T. Crystallization and preliminary X-ray diffraction analysis of an archaeal tRNA-modification enzyme, TiaS, complexed with tRNA^{Ile2} and ATP. *Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun.* **67**, 1414–1416 (2011).
7. Osawa T., Kimura S., Terasaka N., Inanaga H., Suzuki T. & Numata T. Structural basis of tRNA agmatinylation essential for AUA codon decoding. *Nat. Struct. Mol. Biol.*, **18**, 1275–1280 (2011).
8. Terasaka N., Kimura S., Osawa T., Numata T. & Suzuki T. Biogenesis of 2-agmatinylycytidine catalyzed by the dual protein and RNA kinase TiaS. *Nat. Struct. Mol. Biol.*, **18**, 1268–1274 (2011).
9. Suga H., Hayashi G. & Terasaka N. The RNA origin of transfer RNA aminoacylation and beyond. *Phil. Trans. R. Soc. B*, **366**, 2959–2964 (2011).

International Conference Presentations

1. Ishida S., Terasaka N., Katoh T. & Suga H. Ribozymes with tRNA recognition and aminoacylation properties. 26th tRNA conference, Jeju, KOREA, 2016.09.04–08 (Oral)

2. Terasaka N. & Hilvert D. Microfluidic cell sorter-aided directed evolution of box C/D snoRNP to site-specifically introduce N6-methyladenosine. 16th HFSP meeting, Biopolis, SINGAPORE, 2016.07.10–13 (Poster)
3. Terasaka N. & Hilvert D. Microfluidic compartmentalized directed evolution of box C/D snoRNP to methylate RNA bases. RNA 2016, Kyoto, JAPAN, 2016.06.28–07.02 (Poster)
4. Terasaka N., Ishida S., Katoh T. & Suga H. Ribozymes that catalyze tRNA aminoacylation. Pacifichem 2015, Hawaii, United States, 2015.12.15–20 (Oral)
5. Ishida S., Terasaka N., Katoh T. & Suga H., A T-box eibozyme with tRNA aminoacylation activity. 10th International Symposium on Aminoacyl-tRNA Synthetases, Barcelona, SPAIN, 2015. 10. 18–22 (Oral)
6. Terasaka N., Hayashi G., Katoh H. & Suga H. An orthogonal ribosome-tRNA pair via engineering of the peptidyl transferase center. The 3rd Japan-Swiss Chemical Biology Symposium, Bern, SWITZERLAND, 2014. 10. 02–03 (Poster)
7. Terasaka N., Hayashi G., Katoh H. & Suga H., An orthogonal ribosome-tRNAs pair by the engineering of peptidyl transferase center. 25th tRNA conference, Kyllini, GREECE, 2014. 9. 21–25 (Oral)
8. Terasaka N., Hayashi G., Katoh H. & Suga H., Mutant ribosome•tRNA pair towards orthogonal genetic code. 9th International Symposium on Aminoacyl-tRNA Synthetases, Hakone, JAPAN, 2013 10. 6–11 (Oral)
9. Terasaka N., Futai K., Katoh T. & Suga H. Discovery of human small non-coding RNAs binding to small molecules by SELEX-NT. RiboClub Annual Meeting 2013, Quebec, CANADA, 2013. 9. 23–25 (Poster)
10. Terasaka N. & Suga H. The translational activity of a CCA-mutated tRNA-ribosome mutant pair. Annual Symposium on Academic English for Chemistry, Tokyo, JAPAN, 2013. 2. 28, 2013 (Oral)
11. Terasaka N., Hayashi G., Katoh H. & Suga H. Translational activity of CCA-mutated tRNA-ribosome mutant pair. XXIV tRNA conference, Olmue, CHILE, 2012. 12. 2–6 (Poster)