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2014年3月	東京大学薬学部卒業
2016年3月	東京大学大学院薬学系研究科修士課程修了
2016年9月	東京大学大学院薬学系研究科博士課程進学
2017年4月	日本学術振興会特別研究員 DC1
2019年9月	東京大学大学院薬学系研究科博士課程修了
2019年10月	東京大学大学院工学系研究科・特任助教、現在に至る

学術論文リスト

1. **Mitsuhashi, T.**,[†] Barra, L.,[†] Powers, Z.,[†] Kojasoy, V.,[†] Cheng, A., Yang, F., Taniguchi, Y., Kikuchi, T., Fujita, M., Tantillo, D. J., Porco, J. A. Jr., Abe, I. “Exploiting the potential of meroterpenoid cyclases to expand the chemical space of fungal meroterpenoids.” *Angew. Chem. Int. Ed.* 59, in press (2020)
†co-first author
2. Morita, I.,[†] Mori, T.,[†] **Mitsuhashi, T.**,[†] Hoshino, S.,[†] Taniguchi, Y., Kikuchi, T., Nagae, K., Nasu, N., Fujita, M., Ohwada, T., Abe, I. “Exploiting a C-N bond forming cytochrome P450 monooxygenase for C-S bond.” *Angew. Chem. Int. Ed.* 59, 3988-3993 (2020)
†co-first author
3. Chen, Q., Li, J., Liu, Z., **Mitsuhashi, T.**, Zhang, Y., Liu, H., Ma, Y., He, J., Shinada, T., Sato, T., Wang, Y., Liu, H., Abe, I., Zhang, P., Wang, G. “Molecular basis for sesterterpene (C25) diversity produced by plant terpene synthases.” *Plant Commun.*, 1, Article number: 100051 (2020)
4. **Mitsuhashi, T.**, Abe, I. “Sesterterpenoids.” *Progress in the Chemistry of Organic Natural Products*, Vol. 111, Springer, pp. 1-79 (2020)
5. **Mitsuhashi, T.**, Makoto, F. “Structure determination by crystalline sponge method.” *Comprehensive Natural Products III: Chemistry and Biology*, Vol. 1, Elsevier, in press (2020)
6. Powers, Z., Scharf, A., Yang, F., Cheng, A., **Mitsuhashi, T.**, Barra, L., Taniguchi, Y., Kikuchi, T., Fujita, M., Abe, I., Porco, J. A. Jr. “Biomimetic synthesis of meroterpenoids by dearomatization-driven polycyclization.” *Angew. Chem. Int. Ed.* 58, 16141-16146 (2019)
7. Hoshino, S., **Mitsuhashi, T.**, Kikuchi, T., Wong, C. P., Morita, H., Awakawa, T., Fujita, M., Abe, I. “Structural elucidation of tenebrathin: cytotoxic C5-substituted γ -pyrone with

- nitroaryl side chain from *Streptoalloteichus tenebrarius*." **Org. Lett.** 21, 6519-6522 (2019)
8. Sato, H., **Mitsuhashi, T.**, Yamazaki, M., Abe, I., Uchiyama, M. "Inherent atomic mobility changes in carbocation intermediates during the sesterterpene cyclization cascade." **Beilstein J. Org. Chem.** 15, 1890-1897 (2019)
 9. Nakashima, Y.,[†] **Mitsuhashi, T.**,[†] Matsuda, Y.,[†] Senda, M., Sato, H., Yamazaki, M., Uchiyama, M., Senda, T., Abe, I. "Structural and computational bases for dramatic skeletal rearrangement in anditomin biosynthesis." **J. Am. Chem. Soc.** 140, 9743-9750 (2018) [†]co-first author
 10. **Mitsuhashi, T.**, Kikuchi, T., Hoshino, S., Ozeki, M., Awakawa, T., Shi, S.-P., Fujita, M., Abe, I. "The crystalline sponge method enabled the investigation of a prenyltransferase-terpene synthase chimeric enzyme, whose product exhibits broadened NMR signals." **Org. Lett.** 20, 5606-5609 (2018)
 11. Sato, H., **Mitsuhashi, T.**, Abe, I., Uchiyama, M. "Computational studies on biosynthetic carbocation rearrangements leading to quiannulatene: initial conformation regulates biosynthetic route, stereochemistry, and type of skeleton." **Angew. Chem. Int. Ed.** 57, 14752-14757 (2018)
 12. **Mitsuhashi, T.**, Abe, I. "Chimeric terpene synthases possessing both terpene cyclization and prenyltransfer activities." **ChemBioChem**, 19, 1106-1114 (2018)
 13. **Mitsuhashi, T.**,[†] Rinkel, J.,[†] Okada, M., Abe, I., Dickschat, J. S. "Mechanistic characterization of two chimeric sesterterpene synthases from *Penicillium*." **Chem. Eur. J.** 23, 10053-10057 (2017) [†]co-first author
 14. **Mitsuhashi, T.**, Okada, M., Abe, I. "Identification of chimeric $\alpha\beta\gamma$ diterpene synthases possessing both type II terpene cyclase and prenyltransferase activities." **ChemBioChem**, 18, 2104-2109 (2017)
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 16. Matsuda, Y.,[†] **Mitsuhashi, T.**,[†] Lee, S.,[†] Hoshino, M., Mori, T., Okada, M., Zhang, H., Hayashi, F., Fujita, M., Abe, I. "Astellifadiene, a unique tetracyclic fungal sesterterpene: structure determination by an NMR-coupled crystalline sponge method and elucidation of its biosynthesis." **Angew. Chem. Int. Ed.** 55, 5785-5788 (2016) [†]co-first author
 17. Qin, B., Matsuda, Y., Mori, T., Okada, M., Quan, Z., **Mitsuhashi, T.**, Wakimoto, T., Abe, I. "An unusual chimeric diterpene synthase from *Emericella varicolor* and its functional conversion to a sesterterpene synthase by domain swapping." **Angew. Chem. Int. Ed.** 55, 1658-1661 (2016)

18. Matsuda, Y., Quan, Z., Mitsubishi, T., Li, C., Abe, I. "Cytochrome P450 for citreohydrinol synthesis: oxidative derivatization of andrastin scaffold." ***Org. Lett.*** 18, 296-299 (2016)
19. Matsuda, Y.,[†] Mitsubishi, T.,[†] Quan, Z., Abe, I. "Molecular basis for stellatic acid biosynthesis: a genome mining approach for discovery of sesterterpene synthases." ***Org. Lett.*** 17, 4644-4647 (2015) [†]co-first author