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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4月	東京大学大学院薬学系研究科博士課程進学
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2019年6月	日本学術振興会海外特別研究員 Princeton University, Department of Chemistry and Molecular Biology Prof. Mohammad Seyedsayamdost
2022年4月	東京大学大学院農学系研究科・特任助教、現在に至る

学術論文リスト

1. Kozakai, R., Ono, T., **Hoshino, S.**, Takahashi, H., Katsuyama, Y., Sugai, Y., Ozaki, T., Teramoto, K., Teramoto, K., Tanaka, K., Abe, I., Asamizu, S., Onaka, H. "Acyltransferase that catalyses the condensation of polyketide and peptide moieties of goadvionin hybrid lipopeptides." *Nature Chemistry* 12, 869–877 (2020)
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 (2019)
[†]co-first author
3. **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)
4. He, F., Mori, T., Morita, I., Nakamura, H., Alblova, M., **Hoshino, S.**, Awakawa, T., Abe, I. "Molecular basis for the P450-catalyzed C–N bond formation in indolactam biosynthesis." *Nature Chem. Biol.* 15, 1206-1213 (2019)
5. **Hoshino, S.**, Onaka, H., Abe, I. "Activation of silent biosynthetic pathway and discovery of novel secondary metabolites in actinomycetes by co-culture with mycolic acid-containing bacteria" *J. Ind. Microbiol. Biotechnol.* 46, 363-374 (2019)
6. **Hoshino, S.**, Awakawa, T., Zhang, H., Hayashi, F., Abe, I. "Beijinchromes A-D, novel aromatic compounds isolated from *Nocardia beijingensis* NBRC 16342" *Chem. Pharm. Bull.* 67, 775-777 (2019)

7. Araki, Y., Awakawa, T., Matsuzaki, M., Cho, R., Matsuda, Y., **Hoshino, S.**, Shinohara, Y., Yamamoto, M., Kido, Y., Inaoka, D. K., Nagamune, K., Ito, K., Abe, I., Kita, K. "Complete biosynthetic pathways of ascofuranone and ascochlorin in *Acremonium egyptiacum*: branched pathways encoded at two separate loci" **Proc. Natl. Acad. Sci. USA** 116, 8269-8274 (2019)
8. Woo, S.-Y., **Hoshino, S.**, Wong, C. P., Win, N. N., Awouafack, M. D., Prema, P., Ngwe, H., Zhang, H., Hayashi, F., Abe, I., Morita, H. "Lignans with melanogenesis effects from *Premna serratifolia* wood" **Fitoterapia** 133, 35-42 (2019)
9. Woo, S.-Y., Wong, C. P., Win, N. N., **Hoshino, S.**, Prema, Ngwe, H., Abe, I., Morita, H. "A new tetrahydrofuran lignan from *Premna integrifolia* wood" **Nat. Prod. Commun.** 14, 113-116 (2019)
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. **Hoshino, S.**, Ozeki, M., Awakawa, T., Morita, H., Onaka, H., Abe, I. "Catenulobactins A and B, heterocyclic peptides with Fe(III)-chelating activity isolated from rare-actinomycetes *Catenuloplanes* sp. RD067331 combined-cultured with mycolic acid-containing bacterium" **J. Nat. Prod.** 81, 2106-2110 (2018)
12. Awakawa, T., Fujioka, T., Zhang, L., **Hoshino, S.**, Hu, Z., Hashimoto, J., Kozono, I., Ikeda, H., Shin-ya, K., Liu, W., Abe, I. "Reprogramming of the antimycin NRPS-PKS assembly lines inspired by gene evolution" **Nature Commun.** 9, Article number: 3534 (2018)
13. Nakashima, Y., Mori, T., Nakamura, H., Awakawa, T., **Hoshino, S.**, Senda, M., Senda, T., Abe, I. "Structure function and engineering of multifunctional non-heme iron dependent oxygenases in fungal meroterpenoid biosynthesis" **Nature Commun.** 9, Article number: 104 (2018)
14. He, F., Nakamura, H., **Hoshino, S.**, Chin, J. S. F., Yang, L., Zhang, H.-P., Hayashi, F., Abe, I. "Hinduchelins A–D, noncytotoxic catechol derivatives from *Streptoalloteichus hindustanus*" **J. Nat. Prod.** 81, 1493–1496 (2018)
15. **Hoshino, S.**, Wong, C. P., Ozeki, M., Zhang, H., Hayashi, F., Awakawa, T., Asamizu, S., Onaka, H., Abe, I. "Umezawamides, new bioactive polycyclic tetramate macrolactams isolated from a combined-culture of *Umezawaea* sp. and mycolic acid-containing bacterium" **J. Antibiot.** 71, 653-657 (2018)
16. **Hoshino, S.**, Ozeki, M., Wong, C. P., Zhang, H., Hayashi, F., Awakawa, T., Morita, H., Onaka, H., Abe, I. "Mirilactams C-E, novel polycyclic macrolactams isolated from combined-culture of *Actinosynnema mirum* NBRC 14064 and mycolic acid-containing bacterium" **Chem. Pharm. Bull.** 66, 660-667 (2018) **Highlighted paper**

17. Woo, S.-Y., Win, N. N., Wong, C. P., Ito, T., **Hoshino, S.**, Ngwe, H., Aye, A. A., Han, N., Zhang, H., Hayashi, F., Abe, I., Morita, H. “Two new pyrrolo-2-aminoimidazoles, Clathriroles A and B, from marine sponge, *Clathria prolifera* collected in Myanmar” **J. Nat. Med.** 72, 803-807 (2018)
18. Mori, T., Iwabuchi, T., **Hoshino, S.**, Wang, H., Matsuda, Y., Abe, I. “Molecular basis for the unusual ring reconstruction in fungal meroterpenoid biogenesis” **Nature Chem. Biol.** 13, 1066-1073 (2017)
19. **Hoshino, S.**, Okada, M., Awakawa, T., Asamizu, S., Onaka, H., Abe, I. “Mycolic acid-containing bacterium stimulates tandem cyclization of polyene macrolactam in a lake sediment-derived rare actinomycete” **Org. Lett.** 19, 4992-4995 (2017)
20. Mori, T., Zhang, L., Awakawa, T., **Hoshino, S.**, Okada, M., Morita, H., Abe, I. “Manipulation of prenylation reactions by structure-based engineering of bacterial indolactam prenyltransferases” **Nature Commun.** 7, Article number: 10849 (2016)
21. Okada, M., Matsuda, Y., Mitsuhashi, T., **Hoshino, S.**, Mori, T., Nakagawa, K., Quan, Z., Qin, B., Zhang, H., Hayashi, F., Kawaide, H., Abe, I. “Genome-based discovery of an unprecedented cyclization mode in fungal sesterterpenoids biosynthesis” **J. Am. Chem. Soc.** 138, 10011-10018 (2016) **JACS Spotlights**
22. Zhang, L., **Hoshino, S.**, Awakawa, T., Wakimoto, T., Abe, I. “Structural diversification of lnyngbyatoxin A by host-dependent heterologous expression of the tleABC biosynthetic gene cluster” **ChemBioChem**, 17, 1407-1411 (2016)
23. **Hoshino, S.**, Okada, M., Onaka, H., Abe, I. “Effective production of aromatic polyketides in *Streptomyces* bacteria using combined-culture method” **Nat. Prod. Commun.** 11, 979-981 (2016)
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25. **Hoshino, S.**, Wakimoto, T., Onaka, H., Abe, I. “Chojalactones A-C, cytotoxic butanolides isolated from *Streptomyces* sp. cultivated with mycolic acid containing bacterium” **Org. Lett.** 17, 1501-1504 (2015)
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27. **Hoshino, S.**, Wakimoto, T., Zhang, H., Hayashi, F., Okada, M., Abe, I. “Dietziamides, novel tetramic acid dimers from *Dietzia timorensis* MZ-3 with antioxidative activity” **Bioorg. Med. Chem. Lett.** 25, 3953-3955 (2015)
28. **Hoshino, S.**, Zhang, L., Awakawa, T., Wakimoto, T., Onaka, H., Abe, I. “Arcyriaflavin E, a new cytotoxic indolocarbazole alkaloid isolated by combined-culture of mycolic acid-

containing bacteria and *Streptomyces cinnamoneus* NBRC 13823” **J. Antibiot.** 68, 342-344 (2015)

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