Mina Yamane

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CURRENT POSITION

4/2025-*present* **Project Assistant Professor** (KANAI LAB)
Graduate School of Pharmaceutical Sciences
The University of Tokyo, Tokyo, JAPAN

EDUCATION & TRAINING

1/2025-3/2025 **Visiting Student** at Prof. Alison Wendlandt Lab [§]
Department of Chemistry
Massachusetts Institute of Technology (MIT), MA, USA

4/2022-3/2025 **Ph.D.** in Pharmaceutical Sciences
– ***Minor degree*** *in Information Science*
Advisor: Prof. Motomu Kanai
Graduate School of Pharmaceutical Sciences
The University of Tokyo, Tokyo, JAPAN

4/2020-3/2022 **M.S.** in Pharmaceutical Sciences
Advisor: Prof. Motomu Kanai
Graduate School of Pharmaceutical Sciences
The University of Tokyo, Tokyo, JAPAN

4/2016-3/2020 **B.S.** in Applied Chemistry
Advisors: Prof. Noritaka Chida and Associate Prof. Takaaki Sato
Faculty of Science and Technology
Keio University, Yokohama, JAPAN

AWARDS & HONORS

- *1st Place BRC Research Poster Award*, The 5th Bowei Research Conference (2025)
- Sadako O. Hirai Ban Award for Young Researchers, Graduate School of Pharmaceutical Sciences, The University of Tokyo (2024)
- *Best Student Presentation*, 144th Annual Meeting of the Pharmaceutical Society of Japan (2024)

- *Best Oral Presentation*, Summer Retreat Seminar, IMEG and International Research Core for Stem Cell-based Developmental Medicine, Kumamoto University (2023)
- The 13th Otsu Conference Fellow, MSD Life Science Foundation (2022)

PUBLICATIONS

9. **Yamane, M.**; Kobori, H.; Kanai, M. *Science of Synthesis*: Catalytic Late-Stage Functionalization and Diversification of Carbohydrates, *in press*.

8. Han, W.[#]; Hwang, T.[#]; Lian, C.; Kolb, S.; **Yamane, M.**; Palani, V.; Wendlandt, A. E. "Migrating Group Strategy for Remote Functionalization of Seven-Membered Rings" *J. Am. Chem. Soc*. **2025**, *147*, 35, 32077–32084. # Equal contribution

7. **Yamane, M.**; Umeda, H.; Toyobe, M.; Iwai, A.; Ishihara, K.; Kudo, G.; Mitsunuma, H.; Hori, Y.; Tomita, T.; Mizuguchi, M.; Okada, M.; Ueda, M.; Ando, Y.; Kawashima, S. A.; Sohma, Y.; Kaji, H.; Hirokawa, T.; Yamanaka, K.; Kanai, M. "Catalytic Photooxygenation Demonstrates Therapeutic Efficacy in Transthyretin Amyloidosis" *J. Am. Chem. Soc*. **2025**, *147*, 32, 28860–28874 (Preprint ver. in *ChemRxiv* doi: 10.26434/chemrxiv-2024-pghmz).
   * Highlighted by Department News Release, UT Press Release, Chem-Station, and more.

6. Shennan, B. D. A.; Fukuta, T.; **Yamane, M.**; Koyama, T.; Mitsunuma, H.; Kanai, M. "Catalytic Phosphorylation of Tyrosine via a Radical Arbuzov Reaction" *J. Am. Chem. Soc*. **2025**, *147*, 6349–6354.

   * Highlighted by Department News Release, UT Press Release, and 日本経済新聞.

5. Atsumi, W.; Kawabata, K.; **Yamane, M.**; Oi, M.; Mitsunuma, H.; Sohma, Y.; Hori, Y.; Tomita, T.; Kanai, M. "Rose Bengal Promoted Catalytic Amyloid-β Oxygenation via Sonoactivation" *Synlett* **2024**, *35*, 8, 920–924. (Special issue dedicated to Keith Fagnou)

4. Matsukawa, R.; **Yamane, M.**; Kanai, M. "Histidine Photooxygenation Chemistry: Mechanistic Evidence and Elucidation" *Chem. Rec*. **2023**, *23*, 11, e202300198. (Invited to a special collection for Keiji Maruoka's 70th birthday)

3. **Yamane, M.**[#]; Kanzaki, Y.[#]; Mitsunuma, H.; Kanai, M. "Titanium(IV) Chloride-Catalyzed Photoalkylation via C(sp^3)-H Bond Activation of Alkanes" *Org. Lett.* **2022**, *24*, 7, 1486–1490.
   # Equal contribution (This article was selected as: ***Most Read Articles, TOP 20 on a monthly basis***)

2. Fujita, T.; **Yamane, M.**; Sameera, W. M. C.; Mitsunuma, H.; Kanai, M. "Siloxy Esters as Traceless

Activators of Carboxylic Acids: Boron-Catalyzed Chemoselective Asymmetric Aldol Reaction" *Angew. Chem. Int. Ed.* **2021**, *60*, 46, 24598–24604. (This article was selected as: ***Hot Paper***)

1. Katahara, S.; Sugiyama, Y.; **Yamane, M.**; Komiya, Y.; Sato, T.; Chida, N. "Five-Step Total Synthesis of (±)-Aspidospermidine by a Lactam Strategy via an Azomethine Ylide" *Org. Lett.* **2021**, *23*, 8, 3058–3063. (This article was selected as: ***Most Read Articles, TOP 20 on a monthly basis***)

PATENTS

■ International patent application filed: PCT/JP2025/012120 (related to publication 7)

FELLOWSHIPS

04/2023 Research Fellow, Japan Society for the Promotion of Science (JSPS), DC2
– Selected for additional scholarship for outstanding research performance

10/2021 International Graduate Program of Innovation for Intelligent World (IIW)[Ψ]

04/2020 Japan Student Services Organization (JASSO) Scholarship, Category I
– 2022 Repayment Exemption for Outstanding Achievement

CONFERENCES

First-author Presentations: 12 (*including 3 international*)
Co-author Contributions: > 10

OTHER RELATED LINKS

[§] Wendlandt lab alumni (URL: https://wendlandtlab.com/people)

[Ψ] スーパーデータサイエンスアワード 2024 年度秋学期

REFERENCES

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