

Taka Sawazaki

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Education/career

March 2017 **B. Sc.** in School of Materials and Chemical Technology
Tokyo Institute of Technology (Assoc. Prof. Kuwata Shigeki)

March 2019 **M. Sc.** in Department of Pharmaceutical Sciences
The University of Tokyo (Prof. Kanai Motomu)

March 2022 **Ph. D. Course** in Department of Pharmaceutical Sciences
The University of Tokyo (Prof. Kanai Motomu)

April 2021 **Assistant Professor**, The School of Pharmaceutical Sciences
Wakayama Medical University (Prof. Sohma Youhei)

Fellowship & Grant

2020-2021 Research Fellow of the Japan Society for the Promotion of Sciences (DC2)
[fellowship]

2021-2023 JSPS Grant-in-Aid for Research Activity Start-up [research grant]

2023-2025 JSPS Grant-in-Aid for Young Scientists [research grant]

2025-2027 JSPS Grant-in-Aid for Young Scientists [research grant]

Award

June 2019 Poster Presentation Award (The 14th Annual Meeting of Japanese Society for
Chemical Biology, Nagoya)

October 2019 Poster Presentation Award (The 56th Japanese Peptide Symposium, Tokyo)

Publication List

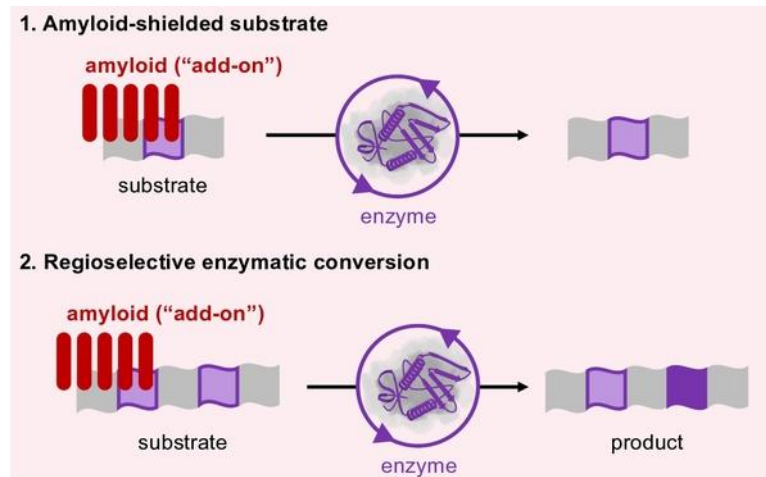
13) Kai Yamamoto, **Taka Sawazaki***, Youhei Sohma*

TBA

12) **Taka Sawazaki***, Fuma Murai, Kai Yamamoto, Daisuke Sasaki, Youhei Sohma*

"Amyloid-reoriented enzyme catalysis"

Nat. Commun. 16, 3164 (2025).



11) **Taka Sawazaki***, Daisuke Sasaki, Youhei Sohma*

"Catalysis driven by an amyloid-substrate complex"

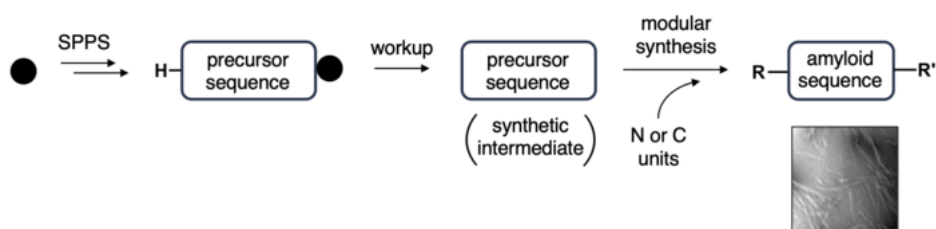
Proc. Natl. Acad. Sci. U.S.A., 121, e2314704121 (2024).



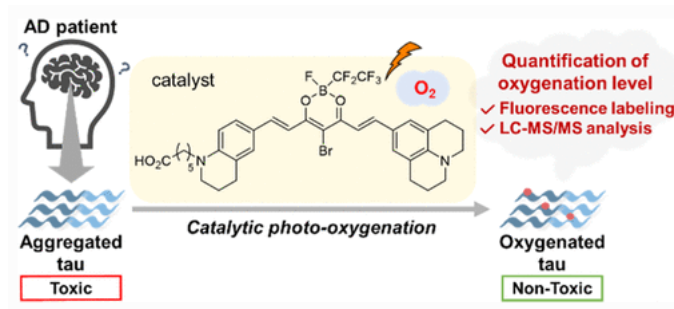
10) **Taka Sawazaki***, Youhei Sohma*

"Modular synthetic strategy for N/C-terminal protected amyloidogenic peptides"

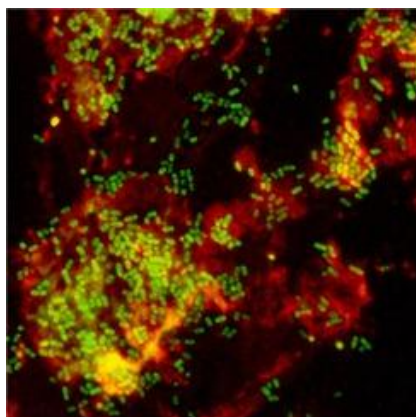
J. Peptide Sci. (Special issue: PeptideTalents), 2024, 30, e3546.



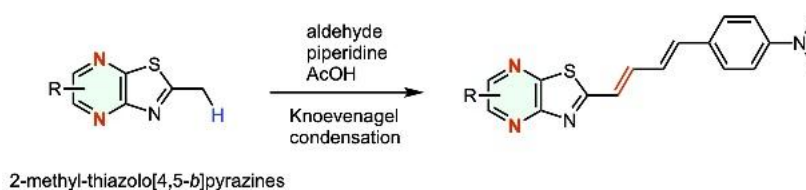
9) Hiroki Umeda, **Taka Sawazaki**, Masahiro Furuta, Takanobu Suzuki, Shigehiro A. Kawashima, Harunobu Mitsunuma, Yukiko Hori, Taisuke Tomita, Youhei Sohma, Motomu Kanai
 "Quantitative assays for catalytic photo-oxygenation of Alzheimer disease-related tau proteins"
ACS Chemical Neuroscience, **2023**, *14*, 2710-2716.



8) Joaquim Torra, **Taka Sawazaki**, Patricia Bondia, Santi Nonell, Motomu Kanai, Youhei Sohma, Cristina Flors
 "Activatable Iodinated BODIPYs for Selective Imaging and Photodynamic Disruption of Amyloid Structures in Pathogenic Bacterial Biofilms"
Sens. Actuators B Chem., **2022**, 132475.



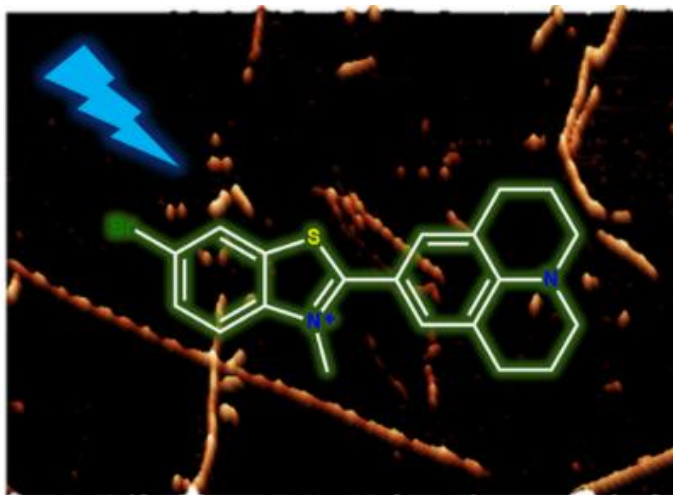
7) **Taka Sawazaki**, Youhei Sohma, Motomu Kanai
 "Knoevenagel condensation between 2-methyl-thiazolo[4,5-b]pyrazines and aldehydes."
Chem. Pharm. Bull., **2022**, *70*, 82–84.



6) Patricia Bondia, Joaquim Torra, Caterina M. Tone, **Taka Sawazaki**, Adrián del Valle, Begoña Sot, Santi Nonell, Motomu Kanai, Youhei Sohma, Cristina Flors

"A nanoscale view of amyloid photodynamic damage"

J. Am. Chem. Soc. **2020**, *142*, 922-930

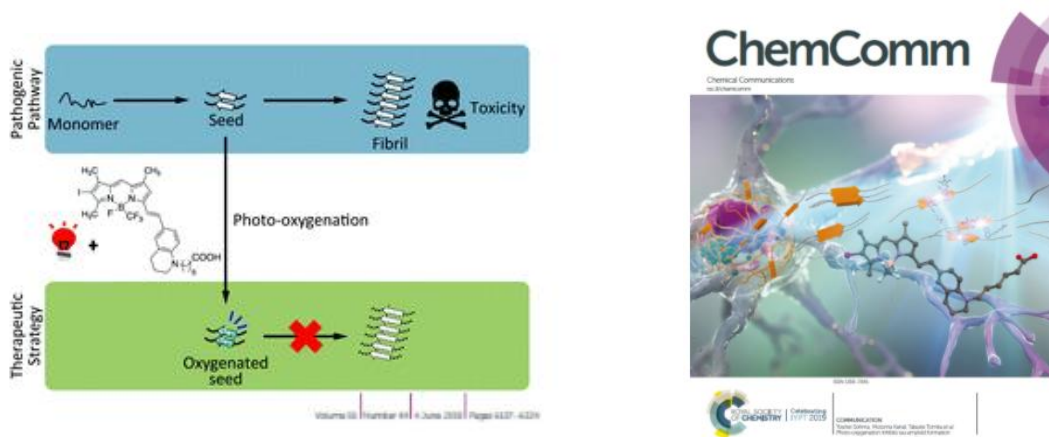


5). Takanobu Suzuki[#], Yukiko Hori[#], **Taka Sawazaki**[#], Yusuke Shimizu, Yu Nemoto, Atsuhiko Taniguchi, Shuta Ozawa, Youhei Sohma*, Motomu Kanai*, Taisuke Tomita* (#contributed equally)

"Photo-oxygenation inhibits tau amyloid formation"

Chem. Commun., **2019**, *55*, 6165-6168.

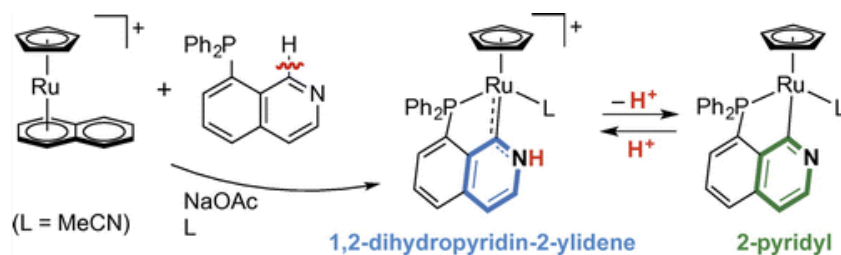
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4) Naoto Tashima, **Taka Sawazaki**, Yoshihito Kayaki, Shigeki Kuwata

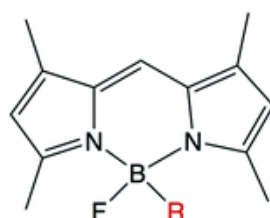
"A P-C Chelate, Protic 1,2-Dihydropyridin-2-ylidene Ruthenium Complex Synthesis, Structure, and Reversible Deprotonation"

Chem. Lett., **2019**, *48*, 787-790.



3) Atsuhiko Taniguchi, **Taka Sawazaki**, Yusuke Shimizu, Youhei Sohma, Motomu Kanai, "Photophysical properties and application in live cell imaging of B,B-fluoro-perfluoroalkyl BODIPYs"

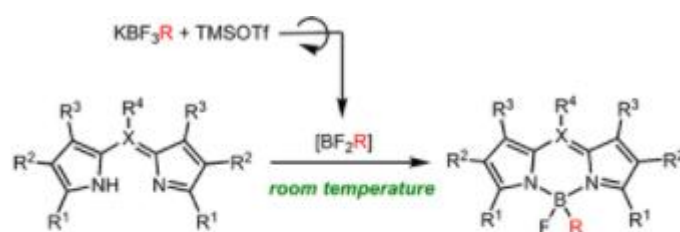
MedChemCommun, **2019**, *10*, 1121-1125.



- 1: R = F
- 2: R = CF₃
- 3: R = C₂F₅

2) **Taka Sawazaki**, Yusuke Shimizu, Kounosuke Oisaki, Youhei Sohma, Motomu Kanai, "Convergent and Functional-Group-Tolerant Synthesis of B-Organo BODIPYs"

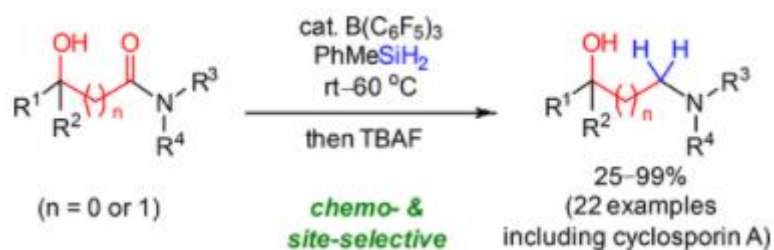
Org. Lett., **2018**, *20*, 7767-7770.



- Convergent synthesis
- High functional group tolerance on R moiety
- Broad substrate scope of dipyrromethene ligand

1) Jizhi Ni[#], Tsubasa Oguro[#], **Taka Sawazaki**, Youhei Sohma, Motomu Kanai (#contributed equally) "Hydroxy Group Directed Catalytic Hydrosilylation of Amides"

Org. Lett., **2018**, *20*, 7371-7374.



Presentation in International Conference

3) Taka Sawazaki, Fuma Murai, Kai Yamamoto, Daisuke Sasaki, Youhei Sohma,

"Selective chemical transformation via amyloid-substrate complex"

12th Singapore International Chemistry Conference, Singapore, December, 2024

2) Taka Sawazaki, Daisuke Sasaki, Youhei Sohma,

"Catalysis driven by Amyloid-Substrate Complex (CASL)"

Future Drug Discovery Empowered by Chemical Biology, Nara, February, 2023

1) Taka Sawazaki, Takanobu Suzuki, Yusuke Shimizu, Yu Nemoto, Atsuhiko Taniguchi, Shuta

Ozawa, Yukiko Hori, Taisuke Tomita, Youhei Sohma, Motomu Kanai,

"Development of BODIPY-based photo-oxygenation catalyst that inhibits tau amyloid formation"

27th International Society of Heterocyclic Chemistry Congress, Kyoto, September, 2019