Curriculum Vitae

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Miyuki YAMAGUCHI

Current Address

52-1 Yada, Suruga-ku, Shizuoka-shi, Shizuoka 422-8526, Japan

e-mail: yamaguchim (at) u-shizuoka-ken.ac.jp

Position

Research Assistant Professor, Laboratory of Organic Chemistry,

School of Pharmaceutical Sciences, University of Shizuoka

Education

3/2008 Ph. D., Graduate School of Science, Tokyo University of Science

3/2005 M. S., Graduate School of Science, Tokyo University of Science

3/2003 B. S., Faculty of Science, Tokyo University of Science

Research Positions

6/2012-present Research Assistant Professor, School of Pharmaceutical Sciences, University of Shizuoka

3/2011-5/2012 Project Assistant Professor, Graduate School of Science, University of Tokyo

9/2008-3/2011 Project Researcher, Graduate School of Science, University of Tokyo

4/2008-8/2008 Researcher, The HFRE division, ERATO, JST

Society Membership

The Chemical Society of Japan

The Pharmaceutical Society of Japan

The Society of Synthetic Organic Chemistry, Japan

Research Interests

Development of new catalytic reactions

Fellowships and Grants

9/2025-3/2030 Research Grant from Takeda Science Foundation

4/2024-3/2027 JSPS Grant-in-aid for Scientific Research (C)

4/2021-3/2024 JSPS Grant-in-aid for Scientific Research (C)

4/2020-3/2021 Research Grant from the Research Foundation for Pharmaceutical Sciences

8/2018-7/2019 Research Grant from Hamamatsu Foundation for Science and Technology Promotion

4/2017-3/2020 JSPS Grant-in-aid for Scientific Research (C)
4/2015-3/2017 JSPS Grant-in-aid for Young Scientist (B)
4/2015-3/2016 Research Grant from the Uehara Memorial Foundation
4/2014-3/2016 Research Grant from Asahi Kasei Pharma
4/2012-3/2014 JSPS Grant-in-aid for Young Scientist (B)
4/2006-3/2008 Hayashi Fellow (Predoctral) of Hayashi Memorial Foundation for Female Natural Scientists

Awards

3/2025 The Pharmaceutical Society of Japan Incentive Award for Women Scientists 2025
7/2018 Young Investigator Award in Tokai Area, Synthetic Organic Chemistry, Japan
2/2014 Asahi Kasei Pharma Award in Synthetic Organic Chemistry, Japan

Publications

(1) Yamaguchi, M.
Synthesis of Multisubstituted Heterocyclic and Aromatic Compounds Using Catalyst-Controlled Site-Selective Reactions.
Chem. Pharm. Bull. **2026**, *74*, 132-144.

(2) Yamaguchi, M.; Jimbo, H.; Konishi, H.; Kondo, M.; Manabe, K.
Diastereoselective Synthesis of Pyrroloindolines by Palladium–Dihydroxyterphenylphosphine-Catalyzed C3-Dearomative Arylation/Cyclization of Substituted Tryptamines.
Chem. Pharm. Bull. **2025**, *73*, 687-691.

(3) Yamaguchi, M.; Nakai, K.; Morioka, K.; Sato, A.; Fujiwara, S.; Konishi, H.; Manabe, K.
Ligand-Controlled C2- or C3-Selectivity Switching in the Palladium-Catalyzed C–H Arylation of Nonsubstituted 1*H*-Pyrrole.
Org. Lett. **2025**, *27*, 141–146.

(4) Konishi, H.; Aoki, Y.; Yamaguchi, M.; Manabe, K.
Selective Syntheses of Unsymmetrical Diaryl Sulfides Enabled by a Sulfur Dioxide Surrogate as a Divalent Sulfur Source and an Activating Agent.
ACS Catal. **2024**, *14*, 15348–15355.

(5) Yamaguchi, M.; Hagiwara, R; Muto, H; Gayama, K; Konishi, H; Manabe, K
Pyrroloindoline/Pyridoindoline Synthesis via C3-Dearomative Arylation/ Cyclization of Tryptamine/Homotryptamine Derivatives Using Palladium–Dihydroxyterphenylphosphine Catalyst.
Org. Lett. **2023**, *25*, 4913–4917.

(6) Kinoshita, K.; Yamaguchi, M.; Sasou, H.; Konishi, H.; Manabe, K.
Palladium-Catalyzed C−H Arylation of [1,1'-Biphenyl]-2-ols with Chloroarenes.
Chem. Pharm. Bull. **2023**, *71*, 175–182.

(7) Yamaguchi, M.; Fujiwara, S.; Mori, Y.; Konishi, H.; Manabe, K.

Synthesis of Multisubstituted Pyrroles by Ligand-Controlled Site-Selective Arylation and Their Transformation into Multiarylated Pyrrolines and Pyrrolidines.
Tetrahedron, **2022**, *123*, 132962.

(8) Konishi, H.; Fujita, R.; Yamaguchi, M.; Manabe, K.
Synthesis of Symmetrical Sulfides Enabled by a Sulfur Dioxide Surrogate Acting as a Divalent Sulfur Source.
Org. Lett., **2022**, *24*, 3663-3667.

(9) Yamaguchi, M.; Manabe, K.
Synthesis of Multisubstituted Benzofurans/Indoles Using Multichlorinated Phenols/Anilines via Palladium-Catalyzed Site-Selective Sonogashira Coupling.
Heterocycles, **2022**, *104*, 3-26.

(10) Konishi, H.; Kumon, M.; Yamaguchi, M.; Manabe, K.
Palladium-Catalyzed External-CO-Free Reductive Carbonylation of Aryl Sulfonates.
Tetrahedron, **2020**, *76*, 131639.

(11) Yamaguchi, M.; Hagiwara, R.; Gayama, K.; Suzuki, K.; Sato, Y.; Konishi, H.; Manabe, K.
Direct C3-Selective Arylation of N-Unsubstituted Indoles with Aryl Chlorides, Triflates, and Nonaflates Using Palladium-Dihydroxyterphenylphosphine Catalyst.
J. Org. Chem., **2020**, *58*, 10902-10912.

(12) Yamaguchi, M.; Ogihara, K.; Konishi, H.; Manabe, K. Synthesis of 2,3-Disubstituted Indoles from Alkynylanilines and 2-Chlorophenols Using Palladium–Dihydroxyterphenylphosphine Catalyst.
Tetrahedron Lett., **2020**, *61*, 151896.

(13) Yamaguchi, M.; Fujiwara, S.; Manabe, K.
Synthesis of 2,2,5-Trisubstituted 2*H*-Pyrroles and 2,3,5-Trisubstituted 1*H*-Pyrroles by Ligand-Controlled Site-Selective Dearomative C2-Arylation and Direct C3-Arylation
Org. Lett., **2019**, *21*, 6972-6977.

(14) Yamaguchi, M.; Ozawa, H.; Katsumata, H.; Akiyama, T.; Manabe, K.
One-Pot Synthesis of 2,3-Disubstituted Benzofurans from 2-Chlorophenols Using Palladium–Dihydroxyterphenylphosphine Catalyst.
Tetrahedron Lett., **2018**, *59,* 3175-3178.

(15) Yamaguchi, M.; Suzuki, K.; Sato, Y.; Manabe, K.
Palladium-Catalyzed Direct C3-Selective Arylation of *N*-Unsubstituted Indoles with Aryl Chlorides and Triflates.
Org. Lett., **2017**, *19*, 5388-5391.

(16) Yamaguchi, M.; Manabe, K.
Three-Step Synthesis of 2,5,7-Trisubstituted Indoles from *N*-Acetyl-2,4,6-trichloroaniline Using Pd-Catalyzed Site-Selective Cross-Coupling.
Org. Biomol. Chem., **2017**, *15*, 6645-6655.

(17) Yamaguchi, M.; Akiyama, T.; Sasou, H.; Katsumata, H.; Manabe, K.
One-Pot Synthesis of Substituted Benzo[b]furans and Indoles from Dichlorophenols/Dichloroanilines Using a Palladium-Dihydroxyterphenylphosphine Catalyst.
J. Org. Chem., **2016**, *81*, 5450-5463.

(18) Yamaguchi, M.; Higuchi, M.; Tazawa, K.; Manabe:, K.
Three-Step Synthesis of Fluoranthenes through Pd-Catalyzed Inter and Intramolecular C-H Arylation.
J. Org. Chem., **2016**, *81*, 3967-3974.

(19) Yamaguchi, M.; Manabe, K.
Ligand-Controlled Site-Selective Cross-Coupling.
Site-Selective Catalysis (Kawabata, T. Ed.): Springer International Publishing: Switzerland, **2016**, pp1-25

(20) Yamaguchi, M.; Suzuki, K.; Manabe, K. Scalable Synthesis of Dihydroxyterphenylphosphine Ligands.
Tetrahedron, **2015**, *71*, 2743-2747.

(21) Konishi, H.; Muto, T.; Ueda, T.; Yamada, Y.; Yamaguchi, M.; Manabe, K.
Imidazole Derivatives as Accelerators for Ruthenium-Catalyzed Hydroesterification and Hydrocarbamoylation of Alkenes: Extensive Ligand Screening and Mechanistic Study.
ChemCatChem, **2015**, *7*, 836-845.

(22) Manabe, K.; Yamaguchi, M.
Catalyst-Controlled Site-Selectivity Switching in Pd-Catalyzed Cross-Coupling of Dihaloarenes.
Catalysts, **2014**, *4*, 307-320.

(23) Yamaguchi, M.; Manabe, K.
One-pot Synthesis of 2,4-Disubstituted Indoles from *N*-Tosyl-2,3-dichloroaniline Using Palladium-Dihydroxyterphenylphosphine Catalyst.
Org. Lett, **2014**, *16*, 2386-2389.

(24) Yamaguchi, M.; Kimura, T.; Shinohara, N.; Manabe, K.
Repetitive Two-Step Method for *o,o,p*- and *o,p*-Oligophenylene Synthesis through Pd-Catalyzed Cross-Coupling of Hydroxyterphenylboronic Acid
Molecules **2013**, *18*, 15207-15219.

(25) Yamaguchi, M.; Katsumata, H.; Manabe, K.
One-Pot Synthesis of Substituted Benzo[*b*]furans from Mono- and Dichlorophenols Using Palladium Catalysts Bearing Dihydroxyterphenylphosphine
J. Org. Chem. **2013**, *78*, 9270−9281.

(26) Kobayashi, S.; Kiyohara, H.; Yamaguchi, M.
Catalytic Silicon Mediated Carbon-Carbon Bond-Forming Reactions of Unactivated Amides.
J. Am. Chem. Soc, **2011**, *133*, 708-711.

(27) Yamaguchi, M.; Morita, N.; Schneider, U.; Kobayashi, S.

Catalytic Use of a Soluble Organoindium(III) Species for Allylation and Crotylation of Ketones with Boronates.
Adv. Synth. Catal. **2010,** *352*, 1461-1465.

(28) Chakrabarti, A.; Konishi, H.; Yamaguchi, M.; Schneider, U.; Kobayashi, S.
Indium(I)-Catalyzed Asymmetric Allylation, Crotylation, and alpha-Chloroallylation of Hydrazones with Rare Constitutional and High Configurational Selectivities.
Angew. Chem. Int. Ed. **2010,** *49*, 1838-1841.

(29) Kobayashi, S.; Yamaguchi, M.; Agostinho, M.; Schneider, U.
Catalytic Use of Strontium Hexamethyldisilazide in the Asymmetric Michael Addition of Malonate to Chalcone Derivatives.
Chem. Lett. **2009,** *38*, 296-297.

(30) Yamaguchi, M.; Ueki, M.
Study on Interactions of Oligo(tyrosine sulfate)s with Synthetic Heparin-Binding Peptides by Affinity Chromatography and MALDI-TOF-MS.
Adv. Exp. Med. Biol. **2009,** *611*, 529-530.

(31) Ueki, M.; Yamaguchi, M.
Analysis of Sulfo- and Phospho-Peptides as Tetrabutylammonium Salts by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry.
Res. Commun. Biochem. Cell Mol. Biol. **2008,** *12*, 37-49.

(32) Yamaguchi, M.; Ohmori, T.; Sakata, Y.; Ueki, M.
Oligo(tyrosine sulfate)s as Heparin Pentasaccharide Mimic: Evaluation by Surface Noncovalent Affinity Mass Spectrometry.
Bioorg. Med. Chem. **2008,** *16*, 3342-3351.

(33) Yamaguchi, M.; Kikuchi, F.; Ueki, M.
Direct Detection and Comparison of Non-Covalent Complex Formation of Oligo(tyrosine sulfate)s with Synthetic Heparin-Binding Peptides by MALDI–TOF–MS.
Peptide Science 2007, Proceedings of the 44th Japanese Peptide Symposium (S. Aimoto ed.), **2008**, pp213-216.

(34) Ueki, M.; Yamaguchi, M.
A Study on Interactions of Oligo(tyrosine sulfate)s with a Heparin-Binding Peptide by MALDI-TOF-MS.
Peptide Science 2006, Proceedings of the 43rd Japanese Peptide Symposium/4th Peptide Engineering Meeting (H. Ishida and H. Mihara eds.), **2006**, pp188-189.

(35) Ueki, M.; Yamaguchi, M.
Enhanced Detection of Sulfo-peptides as Onium Salts in Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry.
Rapid Commun. Mass Spectrom. **2006,** *20*, 1615-1620.

(36) Ueki, M.; Yamaguchi, M.

Detection of Sulfated Peptides as Their Onium Salts in the Positive Mode by MALDI-TOF Mass Spectrometry.
Peptide Science 2005, Proceedings of the 42nd Japanese Peptide Symposium (T. Wakamiya ed.), **2006**, pp177-180.

(37) Ueki, M.; Yamaguchi, M.
Analysis of Acidic Carbohydrates as Their Quaternary Ammonium or Phosphonium Salts by Matrix-Assisted Laser Desorption/Ionization Mass Spectrometry.
Carbohydr. Res. **2005,** *340*, 1722-1731.

(38) Ueki, M.; Yamaguchi, M.; Fujiwara, S.
Analysis of Sulfo- and Phospho-Peptides as Quaternary Ammonium Salts by MALDI-TOF MS.
Peptide Science 2004, Proceedings of the 1st Asian Pacific Ocean International Peptide Symposium/41st Japanese Peptide Symposium (Y. Shimohigashi ed.), **2005**, pp.187-190.

(39) Ueki, M.; Takekawa, A.; Yamaguchi, M.
Solid Phase Synthesis, Characterization, and Physical Properties of Oligo(tyrosine sulfate)s.
Peptide Science 2003, Proceedings of the 40th Japanese Peptide Symposium (M. Ueki ed.), **2004**, pp.151-154.