Curriculum Vitae

Hideyuki KONISHI, Ph.D.

Personal Information

Date of Birth:	October 17, 1979
Place of Birth:	Takamatsu, Japan
Gender:	Male
Nationality:	Japanese
Current Address:	Laboratory of Organic Chemistry School of Pharmaceutical Sciences University of Shizuoka 52-1 Yada, Suruga-ku, Shizuoka 422-8526, Japan
Phone:	+81-54-264-5108
Fax:	+81-54-264-5586
E-mail:	konishi@u-shizuoka-ken.ac.jp
Language:	English and Japanese

Education/Career

10/2020–	**Associate Professor** in School of Pharmaceutical Sciences, University of Shizuoka (Prof. Kei Manabe)
04/2017–09/2020	**Assistant Professor** （講師） in School of Pharmaceutical Sciences, University of Shizuoka (Prof. Kei Manabe)
08/2009–03/2017	**Research Assistant Professor** （助教）in School of Pharmaceutical Sciences, University of Shizuoka (Prof. Kei Manabe)
06/2008–07/2009	**Postdoctoral Fellow** in Department of Chemistry, The University of Chicago (Prof. Viresh H. Rawal) Research Projects: Asymmetric Amination of Dicarbonyl Compounds Using Squaramides-Based Hydrogen Bond Donor Catalysts
04/2008–05/2008	**Postdoctoral Fellow** in Graduate School of Sciences, The University of Tokyo (Prof. Shū Kobayashi) Research Projects: Indium(I)-Catalyzed Asymmetric Allylation, Crotylation, and α-Chloroallylation of Hydrazones
04/2006–03/2008	**Research Fellow** of the Japan Society for the Promotion of Sciences (DC2)
04/2005–03/2008	**Ph.D. (Pharmaceutical Sciences)** in Graduate School of Pharmaceutical Sciences, The University of Tokyo (Prof. Shū Kobayashi) Thesis: “Development of Catalytic C–C Bond Forming Reactions Using Hydrazones and Ammonia as Nitrogen Sources”

Fellowships and Grants

04/2006–03/2008	JSPS Research Fellowship for Young Scientists (DC2)
03/2010	Research Grant from Fuji Film Award in Synthetic Organic Chemistry
04/2011–03/2015	JSPS Grant-in-Aid for Young Scientist (B)
04/2012–03/2017	AMED Platform for Drug Discovery, Informatics, and Structural Life Science [project member]
03/2013	Research Grant from The Uehara Memorial Foundation
04/2015–03/2018	JSPS Grant-in-Aid for Young Scientist (B)
04/2015–03/2020	JSPS Grant-in-Aid for Scientific Research (B) [project member]
04/2016–03/2019	JSPS Grant-in-Aid for Challenging Exploratory Research [project member]
09/2016	Research Grant from Amano Institute of Technology
11/2016	Research Grant from Takeda Science Foundation
04/2017–03/2022	AMED Platform for Drug Discovery, Informatics, and Structural Life Science [project member]
04/2018–03/2021	JSPS Grant-in-Aid for Scientific Research (C)
04/2020–03/2025	JSPS Grant-in-Aid for Scientific Research (B) [project member]
04/2021–03/2024	JSPS Grant-in-Aid for Scientific Research (C)
04/2024–03/2027	JSPS Grant-in-Aid for Scientific Research (C)

Honors and Awards

02/2010	Fuji Film Award in Synthetic Organic Chemistry, Japan
08/2013	IUPAC Poster Prize at the 17th International IUPAC Conference on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS-17)
07/2016	Young Investigator Award of Tokai Division, The Society of Synthetic Organic Chemistry, Japan
03/2017	The Pharmaceutical Society of Japan Award for Young Scientists

Research Interests

Development of novel gaseous molecule surrogates for “external-gas-free” reactions
Development of practical and efficient synthetic methods for construction of pharmaceutically and synthetically important compounds
Elucidation of reaction mechanism based on observation of reaction intermediates

Professional Affiliations

The Pharmaceutical Society of Japan
The Chemical Society of Japan
The Society of Synthetic Organic Chemistry, Japan
The Japanese Society for Process Chemistry

Social Activities outside Universities

Committee member of "The Symposium on Organic Chemistry -the Next Generation-" (2015–2023)
Co-organizer of "The 15th Symposium on Organic Chemistry -the Next Generation-" (May 26–27, 2017)
Committee member of "*Farumashia* Topics" (2017–2019)
Organizer of "The 19th Symposium on Organic Chemistry -the Next Generation-" (May 28–29, 2021)
Symposium committee member of "Division of Organic Chemistry, The Pharmaceutical Society of Japan" (2021–2022)
Reviewer for scientific papers submitted to the following journals: "*Bioorg. Med. Chem. Lett.*", "*Bull. Chem. Soc. Jpn.*", "*Chem. Commun.*", "*Chem. Lett.*", "*Chem. Pharm. Bull.*", "*Chem. Sci.*", "*Org. Biomol. Chem.*", "*Inorganica Chimica Acta*," "*RSC Advances*," "*Synthesis*", and "*Tetrahedron Lett.*"

Publication List (as of March 1, 2024)

1. Miyuki Yamaguchi, Ryoya Hagiwara, Hana Muto, Kanami Gayama, **Hideyuki Konishi**, Kei Manabe
   Pyrroloindoline/Pyridoindoline Synthesis via C3-Dearomative Arylation/Cyclization of Tryptamine/Homotryptamine Derivatives Using Palladium–Dihydroxyterphenylphosphine Catalyst
   Org. Lett. **2023**, *25*, 4913–4917.

2. Keisuke Kinoshita, Miyuki Yamaguchi, Hirohisa Sasou, **Hideyuki Konishi**, Kei Manabe
   Palladium-Catalyzed C–H Arylation of [1,1′-Biphenyl]-2-ols with Chloroarenes
   Chem.Pharm. Bull. **2023**, *71*, 175–182.
   Selected as "Highlighted Paper Selected by Editor-in-Chief"

3. **Hideyuki Konishi**
   Development of Catalytic Synthetic Organic Reactions Utilizing Gaseous Molecule Surrogates
   J. Synth. Org. Chem. Jpn. **2022**, *80*, 911–921 (Review).

4. Miyuki Yamaguchi, Sakiko Fujiwara, Yukiko Mori, **Hideyuki Konishi**, Kei Manabe
   Synthesis of Multisubstituted Pyrroles by Ligand-Controlled Siteselective Arylation and Their Transformation into Multiarylated Pyrrolines and Pyrrolidines
   Tetrahedron **2022**, *123*, 132962.

5. **Hideyuki Konishi**, Ririka Fujita, Miyuki Yamaguchi, Kei Manabe
   Synthesis of Symmetrical Sulfides Enabled by a Sulfur Dioxide Surrogate Acting as a Divalent Sulfur Source
   Org. Lett. **2022**, *24*, 3663–3667.

6. **Hideyuki Konishi**, Minoru Kumon, Miyuki Yamaguchi, Kei Manabe
   Palladium-Catalyzed External-CO-Free Reductive Carbonylation of Aryl Sulfonates
   Tetrahedron **2020**, *76*, 131639.

7. Miyuki Yamaguchi, Ryoya Hagiwara, Kanami Gayama, Kohei Suzuki, Yusuke Sato, **Hideyuki Konishi**, Kei Manabe
   Direct C3-Selective Arylation of *N*-Unsubstituted Indoles with Aryl Chlorides, Triflates, and Nonaflates

Using Palladium-Dihydroxyterphenylphosphine Catalyst
J. Org. Chem. **2020**, *85*, 10902–10912.

8. **Hideyuki Konishi**, Kei Manabe
Discussion Addendum for: Pd-Catalyzed External-CO-Free Carbonylation: Preparation of 2,4,6-Trichlorophenyl 3,4-Dihydronaphthalene-2-Carboxylate Recent Progress on Catalytic Heck Carbonylations Using Carbon Monoxide Surrogates
Org. Synth. **2020**, *97*, 125–138.

9. Miyuki Yamaguchi, Kota Ogihara, **Hideyuki Konishi**, Kei Manabe
Synthesis of 2,3-Disubstituted Indoles from Alkynylanilines and 2-Chlorophenols Using Palladium–Dihydroxyterphenylphosphine Catalyst
Tetrahedron Lett. **2020**, *61*, 151896.

10. **Hideyuki Konishi**, Kei Manabe
Recent Progress on Catalytic Heck Carbonylations Using Carbon Monoxide Surrogates
Tetrahedron Lett. **2019**, *60*, 151147 (Digest Paper).

11. Hiromichi Tanaka, **Hideyuki Konishi**, Kei Manabe
Palladium-Catalyzed One-Step Synthesis of Symmetrical Diaryl Sulfones from Aryl Halides and a Sulfur Dioxide Surrogate
Chem. Lett. **2019**, *48*, 760–763.

12. **Hideyuki Konishi**, Suguru Futamata, Xi Wang, Kei Manabe
Rapid Formation of Fluoren-9-ones via Palladium-Catalyzed External Carbon Monoxide-Free Carbonylation
Adv. Synth. Catal. **2018**, *360*, 1805–1809.

13. **Hideyuki Konishi**, Tomoyuki Sekino, Kei Manabe
Palladium-Catalyzed External-CO-Free Carbonylation of Aryl Bromides Using 2,4,6-Trichlorophenyl Formate
Chem. Pharm. Bull. **2018**, *66*, 562–567.
Selected as "Highlighted Paper Selected by Editor-in-Chief"

14. Kota Sekiguchi, Erina Ogawa, Kohta Kurohane, **Hideyuki Konishi**, Narumi Mochizuki, Kei Manabe, Yasuyuki Imai
Adjuvant Effect of Short Chain Triacylglycerol Tributyrin on a Mouse Contact Hypersensitivity Model
Toxicol. Lett. **2018**, *284*, 56–62.

15. **Hideyuki Konishi**
Creation of Novel Toxic Gas Surrogates and the Development of Safe and Facile Catalytic Reactions.
Chem. Pharm. Bull. **2018**, *66*, 1–19 (Invited Review).
Selected as "Editor's picks"

16. **Hideyuki Konishi**, Mika Matsubara, Keisuke Mori, Takaki Tokiwa, Sundaram Arulmozhiraja, Yuta Yamamoto, Yoshinobu Ishikawa, Hiroshi Hashimoto, Yasuteru Shigeta, Hiroaki Tokiwa, Kei Manabe
Mechanistic Insight into Weak Base-Catalyzed Generation of Carbon Monoxide from Phenyl Formate

and Its Application to Catalytic Carbonylation at Room Temperature without Use of External Carbon Monoxide Gas
Adv. Synth. Catal. **2017**, *359*, 3592–3601.

17. **Hideyuki Konishi**, Masataka Fukuda, Tsuyoshi Ueda, Kei Manabe
Palladium-catalyzed External-CO-Free Reductive Carbonylation of Bromoarenes
Org. Synth. **2017**, *94*, 66–76.

18. **Hideyuki Konishi**, Hiromichi Tanaka, Kei Manabe
Pd-Catalyzed Selective Synthesis of Cyclic Sulfonamides and Sulfinamides Using $K_2S_2O_5$ as a Sulfur Dioxide Surrogate
Org. Lett. **2017**, *19*, 1578–1581.

19. **Hideyuki Konishi**, Fumika Hoshino, Kei Manabe
Practical Synthesis of Axially Chiral Dicarboxylates via Pd-Catalyzed External-CO-Free Carbonylation
Chem. Pharm. Bull. **2016**, *64*, 1438–1441.

20. **Hideyuki Konishi**, Kei Manabe
Practical Synthetic Methods Utilizing Formic Acid Derivatives as Carbon Monoxide Sources
J. Synth. Org. Chem. Jpn. **2015**, *73*, 911–922 (Review).

21. **Hideyuki Konishi**, Takashi Muto, Tsuyoshi Ueda, Yayoi Yamada, Miyuki Yamaguchi, Kei Manabe
Imidazole Derivatives as Accelerators for Ruthenium-Catalyzed Hydroesterification and Hydrocarbamoylation of Alkenes: Extensive Ligand Screening and Mechanistic Study
ChemCatChem **2015**, *7*, 836–845.

22. **Hideyuki Konishi**, Hiroki Nagase, Kei Manabe
Concise Synthesis of Cyclic Carbonyl Compounds from Haloarenes Using Phenyl Formate as the Carbonyl Source
Chem. Commun. **2015**, *51*, 1854–1857.

23. **Hideyuki Konishi**, Kei Manabe
Development of Practical Carbonylation Reactions Using Novel Carbon Monoxide Surrogates
Wako Organic Square **2014**, *49*, 2–4 (Review).

24. **Hideyuki Konishi**, Kei Manabe
Formic Acid Derivatives as Practical Carbon Monoxide Surrogates for Metal-Catalyzed Carbonylation Reactions
Synlett **2014**, *25*, 1971–1986 (Invited Account).

25. **Hideyuki Konishi**, Kei Manabe
Chemical Synthetic Methods without Toxic Gaseous Carbon Monoxide
Farumashia **2014**, *50*, 310–314.

26. **Hideyuki Konishi**, Tsuyoshi Ueda, Kei Manabe
Pd-Catalyzed External-CO-Free Carbonylation: Preparation of 2,4,6-Trichlorophenyl 3,4-Dihydronaphthalene-2-Carboxylate

Org. Synth. **2014**, *91*, 39–51.

27. Tsuyoshi Ueda, **Hideyuki Konishi**, Kei Manabe
Palladium-Catalyzed Fluorocarbonylation Using *N*-Formylsaccharin as CO Source: General Access to Carboxylic Acid Derivatives
Org. Lett. **2013**, *15*, 5370–5373.

28. Tsuyoshi Ueda, **Hideyuki Konishi**, Kei Manabe
Palladium-Catalyzed Reductive Carbonylation of Aryl Halides with *N*-Formylsaccharin as a CO Source
Angew. Chem. Int. Ed. **2013**, *52*, 8611–8615.
Selected as "Most Accessed in 7/2013".
Highlighted in "*SYNFORM*, 2013, A137–A138".
Highlighted in "*Org. Process Res. Dev.* 2013, *17*, 1464"

29. Tsuyoshi, Ueda, **Hideyuki Konishi**, Kei Manabe
Trichlorophenyl Formate: Highly Reactive and Easily Accessible Crystalline CO Surrogate for Palladium-Catalyzed Carbonylation of Aryl/Alkenyl Halides and Triflates
Org. Lett. **2012**, 5370–5373.

30. **Hideyuki Konishi**, Tsuyoshi Ueda, Takashi Muto, Kei Manabe
Remarkable Improvement Achieved by Imidazole Derivatives in Ruthenium-Catalyzed Hydroesterification of Alkenes Using Formates
Org. Lett. **2012**, 4722–4725.

31. Tsuyoshi, Ueda, **Hideyuki Konishi**, Kei Manabe
Preparation of α,β-Unsaturated Esters and Amides via External-CO-Free Palladium-Catalyzed Carbonylation of Alkenyl Tosylates
Tetrahedron Lett. **2012**, *53*, 5171–5175.

32. Tsuyoshi, Ueda, **Hideyuki Konishi**, Kei Manabe
Palladium-Catalyzed Carbonylation of Aryl, Alkenyl, and Allyl Halides with Phenyl Formate
Org. Lett. **2012**, *14*, 3100–3103.

33. **Hideyuki Konishi**, Tatsuya Itoh, Kei Manabe
Site-Selective Cross-Coupling of Dichlorinated Benzo-Fused Nitrogen-Heterocycles with Grignard Reagents.
Chem. Pharm. Bull. **2010**, *58*, 1255–1258.

34. **Hideyuki Konishi**, Kei Manabe
Development of Novel Catalysts Having Oligoarene Structures
Kagaku Kogyo **2010**, *61*, 679–684 (Review).

35. **Hideyuki Konishi**, Tin Yiu Lam, Jeremiah P. Malerich, Viresh H. Rawal
Enantioselective α-Amination of 1,3-Dicarbonyl Compounds Using Squaramide Derivatives as Hydrogen Bonding Catalysts.

Org. Lett. **2010**, *12*, 2028–2031.

36. Ananya Chakrabarti, **Hideyuki Konishi**, Miyuki Yamaguchi, Uwe Schneider, Shū Kobayashi
Indium(I)-Catalyzed Asymmetric Allylation, Crotylation, and α-Chloroallylation of Hydrazones with Rare Constitutional and High Configurational Selectivities.
Angew. Chem. Int. Ed. **2010**, *49*, 1838–1841.
Introduced as "Hot Paper" at the journal website

37. Shū Kobayashi, **Hideyuki Konishi**, Uwe Schneider
Indium(I) Iodide-Catalyzed Regio- and Diastereoselective Formal α-Addition of an α-Methylallylboronate to *N*-Acylhydrazones.
Chem. Commun. **2008**, 2313–2315.

38. **Hideyuki Konishi**, Chikako Ogawa, Masaharu Sugiura, Shū Kobayashi
Cyanation of *N*-Acylhydrazones with Trimethylsilyl Cyanide Promoted by a Brønsted Base and a Lewis Acid.
Adv. Synth. Catal. **2005**, *347*, 1899–1903.

39. Chikako Ogawa, **Hideyuki Konishi**, Masaharu Sugiura, Shū Kobayashi
Phosphine Oxides as Efficient Neutral Coordinate-Organocatalysts for Stereoselective Allylation of *N*-Acylhydrazones.
Org. Biomol. Chem. **2004**, *2*, 446–448.

40. Shū Kobayashi, Chikako Ogawa, **Hideyuki Konishi**, Masaharu Sugiura
Chiral Sulfoxides as Neutral Coordinate-Organocatalysts in Asymmetric Allylation of *N*-Acylhydrazones Using Allyltrichlorosilanes.
J. Am. Chem. Soc. **2003**, *125*, 6610–6611.

Patent List

1. Shū Kobayashi, Uwe Schneider, **Hideyuki Konishi**, Ananya Chakrabarti
Preparation of Optically-Active Homoallylhydrazides and Asymmetric Catalysts for Allylation of *N*-Acylhydrazones
Jpn. Kokai Tokkyo Koho **2009**, JP 2009-242390
2. Shū Kobayashi, Masaharu Sugiura, Chikako Ogawa, **Hideyuki Konishi**
One-Pot Preparation of β-Aminocarbonyl Compounds
Jpn. Kokai Tokkyo Koho **2008**, JP 2008-214300

Invited Lecture and Presentations

1. 二酸化硫黄等価体を用いるスルフィド合成
   第 54 回中部化学関係学協会支部連合秋季大会（三重大学)、2023 年 11 月 11 日
   “Synthesis of Sulfides Utilizing Sulfur Dioxide Surrogates”
   The 54th Autumn Meeting of Chubu Chemistry-Related Scientific Societies (Mie University), November 11, 2023.
2. “Rapid and Practical Synthesis of Fluoren-9-ones Using a Carbon Monoxide Surrogate”
   The 4th International Symposium on Process Chemistry (Kyoto International Conference Center), July 26, 2019 (selected oral presentation).
3. “Toxic Gas Surrogates for Safe and Practical Reactions”
   The 4th International Symposium on Catalysis toward Green Sustainable Chemistry (CAT-GSC-4) (The University of Tokyo), March 23, 2019.
4. “Carbon Monoxide Surrogates for Safe, Practical, and Catalytic Reactions”
   The International Congress on Pure & Applied Chemistry (ICPAC) Langkawi 2018 (Langkawi, Malaysia), November 2, 2018
5. “Carbon Monoxide Surrogates for Safe, Practical, and Catalytic Reactions”
   The 1st International Symposium of Soft Molecular Activation Research Center (Chiba University), September 1, 2018.
6. 新規毒性ガス等価体の創出およびこれを用いる実用性志向型触媒的有機合成反応の開発
   平成 29 年度第 2 回化学系若手研究者講話（明治薬科大学)、2018 年 2 月 9 日
   “Creation of novel toxic gas surrogates and development of practicality-oriented catalytic organic reactions”
   The 2nd Lecture of a Young Chemical Scientist in FY2017 (Meiji Pharmaceutical University), February 9, 2018.
7. 新規毒性ガス等価体の創出と安全かつ簡便な触媒反応の開発
   日本薬学会第 137 年会（仙台)、**平成 29 年度日本化学会奨励賞受賞講演**、2017 年 3 月 26 日
   “Creation of novel toxic gas surrogates and development of safe and facile catalytic reactions”
   The 137th Annual Meeting of the Pharmaceutical Society of Japan (Sendai International Center), **Award Lecture**, March 26, 2017.
8. 毒性ガス等価体を用いる実用性指向型有機合成反応の開発
   若手研究者のためのセミナー（三重大学)、**平成 28 年度有機合成化学協会東海支部奨励賞受賞講演**、2016 年 7 月 21 日
   “Development of practicality-oriented synthetic organic reactions using toxic gas surrogates”
   Seminar for Young Scientists (Mie University), **Award Lecture**, July 21, 2016.
9. ヒドラゾンおよびアンモニアを窒素源として用いる含窒素化合物の新規合成法の開発
   有機合成セミナー（静岡県立大学)、2009 年 7 月 6 日
   “Development of novel synthetic methods of nitrogen-containing compounds using hydrazones and ammonia as nitrogen sources”

Synthetic Organic Chemistry Seminar (University of Shizuoka), July 6, 2009.

Presentations in International Conferences

(Only the presentations performed by myself are shown)

1. ○**Hideyuki Konishi**
   Introduction of Sulfur Functional Groups with Various Valence States
   The 22nd Tateshina Conference on Organic Chemistry (Tateshina, Japan), November 11–13, 2022. (poster presentation with short talk)
2. ○**Hideyuki Konishi**, Kei Manabe
   Practical Carbonylation Enabled by Carbon Monoxide Surrogates
   The 16th Tateshina Conference on Organic Chemistry (Tateshina, Japan), November 11–13, 2016. (poster presentation with short talk)
3. ○**Hideyuki Konishi**, Mika Matsubara, Keisuke Mori, Yoshinobu Ishikawa, Hiroshi Hashimoto, Hiroaki Tokiwa, Kei Manabe
   Mechanistic Study on the Generation of Carbon Monoxide from Phenyl Formate and Its Application to the Development of Pd-Catalyzed Carbonylation at Room Temperature
   The 2015 International Chemical Congress of Pacific Basin Societies (Honolulu, USA), December 15–20, 2015. (poster presentation)
4. ○**Hideyuki Konishi**, Kei Manabe
   Pd-Catalyzed Carbonylative Transformations Using Formic Acid Derivatives as Practical Carbon Monoxide Surrogates
   The 14th Tateshina Conference on Organic Chemistry (Tateshina, Japan), November 7–9, 2014. (poster presentation with short talk)
5. ○**Hideyuki Konishi**, Tsuyoshi Ueda, Mika Matsubara, Kei Manabe
   Aryl Formates as CO Surrogates for Practical Pd-Catalyzed Carbonylation
   The 17th IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 17) (Fort Collins, USA), July 28–August 1, 2013. (poster presentation)
   Winner of "IUPAC Poster Prize" (16/347).
6. ○**Hideyuki Konishi**, Tsuyoshi Ueda, Kei Manabe
   Development of Novel Catalytic Organic Reactions Utilizing Formic Acid Esters
   The 6th Takeda Science Foundation Symposium on PharmaSciences (Suita, Japan), September 13–14, 2012. (poster presentation)
7. ○**Hideyuki Konishi**, Takashi Muto, Kei Manabe
   Ruthenium-Catalyzed Hydroesterification of Alkenes with Simple Formates
   The 8th AFMC International Medicinal Chemistry Symposium (AIMECS11) (Tokyo, Japan), November 30–December 1, 2011. (poster presentation)
8. ○**Hideyuki Konishi**, Shū Kobayashi

Platinum-Catalyzed Aminomethylation of Active Hydrogen Compounds Using Ammonia and Formaldehyde

The 14th IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS 14) (Nara, Japan), August 2–6, 2007. (poster presentation)