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Patricia and Joseph T.'49 Vanderslice Millennium Professor of Chemistry
BOSTON COLLEGE, Department of Chemistry, Merkert Chemistry Center,
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Director of Laboratories for Catalytic Chemical Synthesis
Institut de Science et d'Ingénierie Supramoléculaires, UNIVERSITY OF STRASBOURG,
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EDUCATION

B. A., 1981, Columbia University

Ph. D., 1986, Yale University

Postdoctoral Fellow, 1986-1987 and 1988-1990, Harvard University

EMPLOYMENT

Pfizer Central Research, Cancer Group, November 1987–May 1988

Assistant Professor, Boston College, June 1990–August 1994

Professor, Boston College, September 1994–August 1998

Vanderslice Millennium Professor, September 1998–present

Director of Laboratories for Catalytic Chemical Synthesis, Institute de Science et d'Ingénierie Supramoléculaires, University of Strasbourg, Strasbourg, France, January 2019–

SELECTED HONORS

American Chemical Society *Cope Scholar Award*, 1998

NIH MERIT Award, 2005

Yamada-Koga Prize, 2010

American Chemical Society *Award for Creative Work in Organic Synthesis*, 2014

Eni Prize, 2014

American Chemical Society *H. C. Brown Award for Creative Work in Synthetic Methods*, 2020

KEY PROFESSIONAL ASSOCIATION

Principal Co-Founder, *XiMo, Inc.*, 2010

SELECTED PUBLICATIONS (total of ~300)

(1) Zhao, Y.; Rodrigo, J.; Hoveyda, A. H.; Snapper, M. L. Enantioselective Silyl Protection of Alcohols by An Amino-Acid-Based Small Molecule. *Nature* **2006**, *443*, 67–70.

(2) Meek, S. J.; O'Brien, R. V.; Llaveria, J.; Schrock, R. R.; Hoveyda, A. H. Catalytic Z-selective olefin cross-metathesis for natural product synthesis. *Nature* **2011**, *471*, 461–466.

- (3) Yu, M.; Wang, C.; Kyle, A. F.; Jakubec, P.; Dixon, D. J.; Schrock, R. R.; Hoveyda, A. H. Synthesis of Macrocyclic Natural Products by Catalyst-Controlled Stereoselective Ring-Closing Metathesis. *Nature* **2011**, *479*, 88–93.
- (4) Meng, F.; McGrath, K. P.; Hoveyda, A. H. Multifunctional Organoboron Compounds for Scalable Natural Product Synthesis. *Nature* **2014**, *513*, 367–374.
- (5) Koh, M. J.; Khan, R. K. M.; Torker, S.; Yu, M.; Mikus, M. S.; Hoveyda, A. H. High-Value Alcohols and Higher-Oxidation-State Compounds by Catalytic Z-Selective Cross-Metathesis. *Nature* **2015**, *517*, 181–186.
- (6) Meng, F.; Li, X.; Torker, S.; Shi, Y.; Shen, X.; Hoveyda, A. H. Catalytic Enantioselective 1,6-Conjugate Additions of Propargyl and Allyl Groups. *Nature* **2016**, *537*, 387–393.
- (8) Koh, M. J.; Nguyen, T. T.; Zhang, H.; Schrock, R. R.; Hoveyda, A. H. Direct Synthesis of Z-Alkenyl Halides through Catalytic Cross-Metathesis. *Nature* **2016**, *539*, 459–465.
- (9) Lee, K.; Silverio, D. L.; Torker, S.; Robbins, D. W.; Haeffner, F.; van der Mei, F. W.; Hoveyda, A. H. Catalytic Enantioselective Addition of Organoboron Reagents to Fluoroketones Controlled by Electrostatic Interactions," *Nat. Chem.* **2016**, *8*, 768–777.
- (10) Nguyen, T. T.; Koh, M. J.; Shen, X.; Romiti, F.; Schrock, R. R.; Hoveyda, A. H. Kinetically Controlled E-Selective Catalytic Olefin Metathesis," *Science* **2016**, *352*, 569–575.
- (11) Shen, X.; Nguyen, T. T.; Koh, M. J.; Xu, D.; Speed, A. W. H.; Schrock, R. R.; Hoveyda, A. H. Kinetically E-Selective Macrocyclic Ring-Closing Metathesis. *Nature* **2017**, *541*, 380–385.
- (12) Koh, M. J.; Nguyen, T. T.; Lam, J. K.; Torker, S.; Hyvl, J.; Schrock, R. R.; Hoveyda, A. H. Molybdenum Chloride Catalysts for Z-Selective Olefin Metathesis Reactions. *Nature* **2017**, *542*, 80–85.
- (13) Jang, H.; Romiti, F.; Torker, S.; Hoveyda, A. H. Catalytic Diastereo- and Enantioselective Additions of Versatile Allyl Groups to N-H Ketimines. *Nat. Chem.* **2017**, *9*, 1269–1275.
- (14) Lee, J.; Radomkit, S.; Torker, S.; del Pozo, J.; Hoveyda, A. H. "Mechanism-based Enhancement of Scope and Enantioselectivity for Reactions Involving a Copper-Substituted Stereogenic Carbon Centre," *Nat. Chem.* **2018**, *10*, 99–108.
- (15) Zhang, S.; del Pozo, J.; Romiti, F.; Mu, Y.; Torker, S.; Hoveyda, A. H. "Delayed catalyst function enables direct enantioselective conversion of nitriles to NH₂-amines," *Science* **2019**, *364*, 45–51.

SELECTED PATENTS

1. "Asymmetric Ring-Closing Metathesis Reactions Involving Achiral and Meso Substrates," **2002**, Patent Number US 6,346,652.
2. "Chiral Cyanoamines and Methods of Preparation," **2004**, Patent Number US 6,693,168.
3. "Efficient Methods for Z- or cis-Selective Cross-Metathesis," **2013**, Patent Number US 8,598,400
4. "Simple Organic Molecules as Catalysts for Practical and Enantioselective Synthesis of Amines and Alcohols," **2015**, Patent Number US 0,057,451

5. "Z-Selective Coupling of Terminal Olefins," **2017**, Patent Number US 9,713,808
6. "Z-Selective Ring-Closing Metathesis Reactions," **2017**, Patent Number US 9,771,386
7. "Synthesis of Z-Alkenyl Halides Through Stereoselective Olefin Metathesis," **2017**, Patent Number US 9,850,268