Chulbom Lee

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Education and Experience:

| 2001- | Assistant Professor Department of Chemistry, Princeton University, New Jersey |
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| 1999-2001 | Postdoctoral Fellow (US Army Breast Cancer Research) The Sloan-Kettering Institute for Cancer Research, New York Advisor: Professor Samuel J. Danishefsky Project: Chemical Synthesis and Biological Evaluation of Epothilones |
| 1992-1998 | Ph.D. in Chemistry Department of Chemistry, Stanford University, California Advisor: Professor Barry M. Trost Thesis: Asymmetric Alkylation of Allylic <i>gem</i> -Dicarboxylates and Total Syntheses of Sphingofungins E and F |
| 1991-1992 | Research and Teaching Assistant, Department of Chemistry, Seoul National University, Seoul, Korea Advisor: Professor Eun Lee Project: Stereoselective Synthesis of Oxacycles via Free Radical Cyclization |
| 1990-1991 | Second Lieutenant (Military Service) Korea The 3rd Military Academy, Yeong-Cheon, Korea |
| 1984-1990 | B.S and M.S. in Chemistry |

Department of Chemistry, Seoul National University, Seoul, Korea Advisor: Professor Eun Lee Thesis: Syntheses of Novel Aza-δ-Lactam Antibiotics

Honors and Awards:

- 2002 Synthesis/Synlett Journal Award, Thieme Publishers
- 1999-2001 Postdoctoral Fellowship, US Army Breast Cancer Research Program
- 1997-1998 Pharmacia & Upjohn Graduate Fellowship
- 1997 The Roche Award for Excellence in Organic Chemistry
- 1996-1997 Franklin Veatch Fellowship, Stanford University

Publications:

Independent Contributions

- "Total Synthesis of Kendomycin: a Macroglycosidation Approach," Yu Yuan, Hongbin Men, and Chulbom Lee J. Am. Chem. Soc. 2004, 126, 14720-14721.
- "Stereoselective Palladium-Catalyzed O-Glycosylation Using Glycals" Hahn Kim, Hongbin Men, and Chulbom Lee J. Am. Chem. Soc. 2004, 126, 1336-1337.
- "A Mild and Efficient Method for the Stereoselective Formation of C–O Bonds: Palladium-Catalyzed Allylic Etherification Using Zinc(II) Alkoxides," Hahn Kim and Chulbom Lee *Org. Lett.* **2002**, *4*, 4369-4371.

Papers submitted

- "Cycloisomerization of 1,6-Enynes via Rh-Vinylidene Mediated Catalysis," Hahn Kim and Chulbom Lee.
- "Iridium-Catalyzed Selective N-Allylation of Hydrazides," Robert Matunas, Amy Lai, and Chulbom Lee.
- "Allylic Etherification via Ir(I)/Zn(II) Bimetallic Catalysis," Justin P. Roberts and Chulbom Lee.
- "Hydrative Cyclization of Alkynes: Ruthenium-Catalyzed Stetter Reaction," Yiyun Chen and Chulbom Lee.

Book Chapters and Commentaries

- "A Quest for Better Substrates and Catalysts in Arylation Reactions: Iron-Catalyzed Cross-Coupling of Grignard Reagents with Aryl Chlorides, Tosylates, and Triflates," Richard J. Hooley and Chulbom Lee *Chemtracts* **2003**, *16*, 518-526.
- "Transition Metal-Catalyzed Asymmetric Allylic Alkylation (AAA) Reactions", Barry M. Trost and Chul Bom Lee In "Catalytic Asymmetric Synthesis (2nd Ed.)", I. Ojima Ed.; Wiley-VCH, New York, NY, 2000, Chapter 8E, pp 593-649.
- "A Selective Oxidative Functionalization of sp² and sp³ C–H Bonds," Erik Alexanian and Chulbom Lee *Chemtracts* Accepted for publication.

Postdoctoral Work

- "Probing the SAR of dEpoB via Chemical Synthesis: A Total Synthesis Evaluation of C26-(1,3-dioxolanyl)-12,13-desoxyepothilone B," M. D. Chappell, C. R. Harris, S. D. Kudak, A. Balog, Z. Wu, F. Zhang, C. B. Lee, S. J. Stachel, S. J. Danishefsky, T.-C. Chou, Y. Guan, *J. Org. Chem.* 2002, 67, 7730-7736.
- "The Synthesis, Discovery, and Development of a Highly Promising Class of Microtubule Stabilization Agents: Curative Effect of Desoxyepothilone B and F against Human Tumor Xenografts in Nude Mice," Ting-Chao Chou, Owen A. O'Connor, William P. Tong, Yongbiao Guan, Xiu-Guo Zhang, Shawn J. Stachel, Chulbom Lee, and Samuel J. Danishefsky, *Proc. Natl. Acad. Sci. U.S.A.* **2001**, *98*, 8113-8118.
- "A New Class of Microtubule Stabilization Agents: Curative Effect of Desoxyepothilone B and F against Human Tumor Xenografts in Nude Mice," Ting-Chao Chou, Yongbiao Guan, Xiu-Guo Zhang, Chulbom Lee, Shawn J. Stachel, Joseph R. Bertino, and Samuel J. Danishefsky, *Proc. Am. Assoc. Cancer Res.* **2001**, *42*, 371.
- "On the Interactivity of Complex Synthesis and Tumor Pharmacology in the Drug Discovery Process: The Total Synthesis and Comparative in vivo Evaluations of the 15-Aza Epothilones," Shawn J. Stachel, Chul Bom Lee, Maria Spassova, Mark D. Chappell, Samuel J. Danishefsky, Ting-Chao Chou, and Yongbiao Guan *J. Org. Chem.* **2001**; *66*, 4369-4378.
- "Insights into Long Range Structural Effects on the Stereochemistry of Aldol Condensations: A Practical Total Synthesis of Desoxyepothilone F," Chul Bom Lee, Zhicai Wu, Fei Zhang, Mark D. Chappell, Shawn J. Stachel, Ting-Chao Chou, Yongbiao Guan, and Samuel J. Danishefsky J. Am. Chem. Soc. 2001, 123, 5249-5259.
- "The Total Synthesis and Antitumor Activity of 12,13-Desoxyepothilone F: An Unexpected Solvolysis Problem at C15, Mediated by Remote Substitution at C21," Chul Bom Lee, Ting-Chao Chou, Xiu-Guo Zhang, Zhi-Guang Wang, Scott D. Kuduk, Mark D. Chappell, Shawn J. Stachel and Samuel J. Danishefsky *J. Org. Chem.* **2000**, *65*, 6525-6533.

- "On the Total Synthesis and Preliminary Biological Evaluation of 15(*R*) and 15(*S*) Aza-dEpoB: A Mitsunobu Inversion at C15 in Pre-Epothilone Fragments," Shawn J. Stachel, Mark D. Chappell, Chul Bom Lee, Samuel J. Danishefsky, Ting-Chao Chou, Lifeng He, and Susan B. Horwitz *Org. Lett.* **2000**, *2*, 1637-1639.
- "En Route to a Plant Scale Synthesis of the Promising Antitumor Agent 12,13-Desoxyepothilone B," Mark D. Chappell, Shawn J. Stachel, Chul Bom Lee and Samuel J. Danishefsky *Org. Lett.* **2000**, *2*, 1633-1636.

Doctoral Work

- "Geminal-Dicarboxylates as Carbonyl Surrogates for Asymmetric Synthesis. Total Syntheses of Sphingofungins E and F," Barry M. Trost and Chulbom Lee J. Am. Chem. Soc. 2001, 123, 12191-12201.
- "Geminal-Dicarboxylates as Carbonyl Surrogates for Asymmetric Synthesis. Part I. Asymmetric Addition of Malonate Nucleophiles," Barry M. Trost, Chul Bom Lee J. Am. Chem. Soc. 2001, 123, 3671-3686.
- "Geminal-Dicarboxylates as Carbonyl Surrogates for Asymmetric Synthesis. Part II. Scope and Applications," Barry M. Trost and Chul Bom Lee J. Am. Chem. Soc. 2001, 123, 3687-3696.
- "α-Acetoxysulfones as "Chiral Aldehyde" Equivalents," Barry M. Trost, Matthew L. Crawly and Chul Bom Lee J. Am. Chem. Soc. 2000, 122, 6120-6121.
- "A New Strategy for Synthesis of Sphingosine: Total Synthesis of Sphingofungin F," Barry M. Trost and Chul Bom Lee J. Am. Chem. Soc. **1998**, 120, 6818-6819.
- "Asymmetric Alkylation of Allylic *gem*-Dicarboxylates," Barry M. Trost, Chul Bom Lee and Jochen M. Weiss *J. Am. Chem. Soc.* **1995**, *117*, 7247-7248.

Undergraduate/Master Work

- "β-Alkoxyacrylates in Radical Cyclizations: Remarkably Efficient Oxacycle Synthesis," Eun Lee, Jin Sung Tae, Chulbom Lee and Cheol Min Park *Tetrahedron Lett.* **1993**, *34*, 4831-4834.
- "Radical Isomerization via Intramolecular *ipso* Substitution of Aryl Ethers: Aryl Translocation from Oxygen to Carbon," Eun Lee, Chulbom Lee, Jin Sung Tae, Ho Sung Whang and Kap Sok Lee *Tetrahedron Lett.* **1993**, *34*, 2343-2346.