

JUSTIN KIM

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POSITIONS

- 2016–present **Dana-Farber Cancer Institute**
Assistant Professor, Department of Cancer Biology
- 2016–present **Harvard Medical School**
Assistant Professor, Department of Biological Chemistry and Molecular Pharmacology

EDUCATION

- 2013–2016 **Stanford University**
Postdoctoral Fellow in Chemical Biology
University of California, Berkeley
Miller Institute for Basic Research in Science Postdoctoral Research Fellow
Advisor: Professor Carolyn R. Bertozzi
- 2007–2013 **Massachusetts Institute of Technology**
Ph.D. in Organic Chemistry
Advisor: Professor Mohammad Movassaghi
- 2003–2007 **Harvard University**
A.B. *Summa cum laude* in Chemistry and Physics / A.M. in Chemistry
Advisor: Professor David A. Evans

AWARDS

- 2018 NIH Director's New Innovator Award
- 2018 William F. Milton Award
- 2018 Karin Grunebaum Cancer Research Foundation Fellow
- 2015 Stanford ChEM-H Postdocs at the Interface Seed Grant (w/ Dr. Kyle Brewer)
- 2013–2016 Miller Institute for Basic Research in Science Postdoctoral Research Fellowship
- 2012 Reaxys PhD Prize Finalist
- 2012 Roche Excellence in Chemistry Award
- 2012 Vivian A. and E. Emerson Morse Travel Grant
- 2008–2011 National Defense Science and Engineering Graduate Fellowship
- 2008–2011 National Science Foundation Graduate Fellowship (declined)
- 2008 Teaching Assistant Award, MIT Chemistry Department
- 2007 SYNStar Award, for excellence in synthetic organic chemistry
- 2007–2008 MIT Presidential Graduate Fellowship
- 2006 Phi Beta Kappa Honor Society
- 2006 Pfizer Global Research and Development Summer Undergraduate Research Fellow
- 2006 Dean's Summer Research Award
- 2005 Herchel Smith Summer Undergraduate Research Fellow
- 2005 Detur Prize, for outstanding academic achievement
- 2004, 2006 John Harvard Scholar

RESEARCH EXPERIENCE

- 2013–present **Bertozzi Research Group, Stanford University / UC Berkeley** Stanford / Berkeley, CA
Department of Chemistry, Advisor: Professor Carolyn R. Bertozzi
Postdoctoral Fellow, Chemical Biology

- Development of a bioorthogonal reactions between N-oxide and boron reagents.

- 2007–2013 **Movassaghi Research Group, Massachusetts Institute of Technology** Cambridge, MA
 Department of Chemistry, Advisor: Professor Mohammad Movassaghi
Graduate Research Assistant, Organic Chemistry
- Total synthesis of (+)-bionectins A and C.
 - Total synthesis of (+)-naseezines A and B.
 - Total synthesis of (+)-chaetocins A and C and (+)-12,12'-dideoxytetracin A.
 - Total synthesis of (+)-12,12'-dideoxyverticillin A.
- 2005–2007 **Evans Research Group, Harvard University** Cambridge, MA
 Department of Chemistry and Chemical Biology, Advisor: Professor David A. Evans
Undergraduate Research Assistant, Organic Chemistry
- Total synthesis of (+)-symbioimine.
 - Studies toward the total synthesis of serratinine.
- 2003, 2004 **NASA Jet Propulsion Laboratory** Pasadena, CA
Technical Assistant to the Manager of Advanced Concepts/Technology Innovations
- Programmed software and firmware for an intelligent modular systems project for the automatic reconfiguration of a generic module upon fault detection.
 - Developed an API for a bridge between the IEEE 1394 and IEEE 1553 buses.

PUBLICATIONS

11. **Kim, J.**; Bertozzi, C. R. *Angew. Chem. Int. Ed.* **2015**, *54*, 15777–15781. “Bioorthogonal Reaction of N-oxide and Boron Reagents.”
10. **Kim, J.**; Movassaghi, M. *Acc. Chem. Res.* **2015**, *48*, 1159–1171. “Biogenetically-Inspired Total Synthesis of Epidithiodiketopiperazines and Related Alkaloids.”
9. Yang, G.; Lindovska, P.; Zhu, D.; **Kim, J.**; Wang, P.; Tang, R.-Y.; Movassaghi, M.; Yu, J.-Q. *J. Am. Chem. Soc.* **2014**, *136*, 10807–10813. “Pd(II)-catalyzed meta-C–H Olefination, Arylation, and Acetoxylation of Indolines Using a U-Shaped Template.”
8. Coste, A.; **Kim, J.**; Adams, T. C.; Movassaghi, M. *Chem. Sci.* **2013**, *4*, 3191–3197. “Concise Total Synthesis of (+)-Bionectins A and C.”
7. Boyer, N.; Morrison, K. C.; **Kim, J.**; Hergenrother, P. J.; Movassaghi, M. *Chem. Sci.* **2013**, *4*, 1646–1657. “Synthesis and Anticancer Activity of Epipolythiodiketopiperazine Alkaloids.”
6. Lathrop, S. P.; **Kim, J.**; Movassaghi, M. *Chimia* **2012**, *66*, 389–393. “Radical Mediated Dimerization and Oxidation Reactions for the Synthesis of Complex Alkaloids.”
5. **Kim, J.**; Movassaghi, M. *J. Am. Chem. Soc.* **2011**, *133*, 14940–14943. “Concise Total Synthesis and Stereochemical Revision of (+)-Naseezines A and B: Regioselective Arylative Dimerization of Diketopiperazine Alkaloids.”
4. **Kim, J.**; Movassaghi, M. *J. Am. Chem. Soc.* **2010**, *132*, 14376–14378. “General Approach to Epipolythiodiketopiperazine Alkaloids: Total Synthesis of (+)-Chaetocins A and C and (+)-12,12'-Dideoxytetracin A.”
3. **Kim, J.**; Movassaghi, M. *Chem. Soc. Rev.* **2009**, *38*, 3035–3050. “Biogenetically Inspired Syntheses of Alkaloid Natural Products.”
2. **Kim, J.**; Ashenhurst, J. A.; Movassaghi, M. *Science* **2009**, *324*, 238–241. “Total Synthesis of (+)-11,11'-Dideoxyverticillin A.”
1. **Kim, J.**; Thomson, R. J. *Angew. Chem. Int. Ed.* **2007**, *46*, 3106–3107. “Enantioselective Total Synthesis of the Osteoclastogenesis Inhibitor (+)-Symbioimine.”

BOOK CHAPTERS

- **Kim, J.**; Movassaghi, M. (+)-11,11'-Dideoxyverticillin A. In *Total Synthesis of Natural Products*; Li, J. J.;

Corey, E. J., Eds.; Springer-Verlag: Berlin Heidelberg, 2013; pp 211–233.

PATENTS

- Boyer, N. C.; Hergenrother, P. J.; **Kim, J.**; Morrison, K. C.; Movassaghi, M. Compounds, Conjugates and Compositions of Epipolythiodiketopiperazines and Polythiodiketopiperazines. U.S. Patent No. 9353150. May 31, 2016.
- Bertozzi, C. R.; **Kim, J.** Bioorthogonal Reaction of an Amine N-oxide and a Boron Reagent. U.S. Patent Application 62/204,883.

PRESENTATIONS

- *Bioorthogonal reaction of N-oxide and boron reagents.* Kim, J. Research Presentation. Fall 2015 ACS National Meeting, Boston, MA. August 19, 2015.
- *Bioorthogonal reaction of N-oxide and boron reagents.* Kim, J. Poster Presentation. Miller Research Symposium, Marconi Conference Center. June 5–7, 2015.
- *Toward the in vivo imaging of secreted virulence factors in the M. marinum-zebrafish model.* Kim, J. Poster Presentation. Miller Research Symposium, Marconi Conference Center. June 6–8, 2014.
- *Total Synthesis of Dimeric Diketopiperazine Alkaloids.* Kim, J. Poster Presentation. Center for C–H Functionalization Symposium, Emory University. October 13, 2012.
- *Total Synthesis of Dimeric Diketopiperazine Alkaloids.* Kim, J. Poster Presentation. Reaxys PhD Prize Poster Session, Fall 2012 ACS National Meeting, Philadelphia, PA. August 20, 2012.
- *Total Synthesis of Dimeric Epipolythiodiketopiperazine Alkaloids.* Kim, J. Research Presentation. 2012 Roche Award Symposium: Excellence in Chemistry, Hoffman-La Roche, Nutley, NJ. May 22, 2012.
- *General Approach to Epipolythiodiketopiperazine Alkaloids: Total Synthesis of (+)-Chaetocins A and C and (+)-12,12'-Dideoxychetracin A.* Poster Presentation. Gordon Research Conference: Natural Products, Bryant University. July 24–29, 2011.
- *Total Synthesis of Epipolythiodiketopiperazine Alkaloids.* Research Presentation. Graduate Research Symposium, MIT. May 31, 2011.