**Education**

# University of California, Los Angeles, CA

* Ph.D., Organic Chemistry, March 2015
* Graduate Research Assistant, July 2010 to March 2015
* Cumulative GPA: 3.99/4.00

#  Furman University, Greenville, SC

* Bachelor of Science, Chemistry and Music, with Honors, May 2010
* Cumulative GPA: 3.45/4.00

**Professional and Academic Experience**

Florida State University • Department of Chemistry and Biochemistry

95 Chieftan Way, Tallahassee, FL 32306 • Tel. (850)-644-9624

**Associate Professor of Chemistry**: Florida State University, Tallahassee, FL.

* August 2025 to present

**Assistant Professor of Chemistry**: Florida State University, Tallahassee, FL.

* August 2018 to July 2025
* Complex molecule synthesis and reaction invention.
* Development of new catalytic transformations.

**Arnold O. Beckman Postdoctoral Fellow:** The Scripps Research Institute, La Jolla, CA

* May 2015 to June 2018; Advisor: Phil S. Baran
* Developed strategies for the total synthesis of terpenoid natural products.
* Development of new decarboxylative cross-coupling reactions.

**NSF Graduate Research Fellow:** University of California, Los Angeles, CA

* July 2010 to March 2015; Advisor: Professor Neil K. Garg
* Developed and implemented synthetic strategies to construct complex akuammiline alkaloids.
* Completed total syntheses of the akuammiline targets picrinine, strictamine, and aspidophylline A.

## Teaching Assistant: University of California, Los Angeles, CA

* Led discussions for undergraduate organic chemistry (January 2011 to June 2011).
* Supervised and taught undergraduate experimental organic chemistry and laboratory technique (September 2010 to December 2010).

**NSF REU Research Fellow:** University of Campinas, Campinas, Brazil

* May 2009 to August 2009; Advisor: Professor Fernando Coelho
* Developed a new route to construct 1,3-oxazinanones from Morita-Baylis-Hillman adducts.

 **Teaching Assistant:** Furman University, Greenville, SC

* September 2008 to May 2010
* Led discussions and conducted lectures for undergraduate chemistry and music theory courses.

**Undergraduate Research Assistant:** Furman University, Greenville, SC

* May 2008 to June 2010; Advisor: Brian C. Goess
* Investigated routes toward and completed the total synthesis of the furanosteroid hibiscone C

**Fellowships, Honors, and Awards**

* NIH Maximizing Investigators’ Research Award (8/2023)
* ACS Organic Division Young Investigator Award (8/2023)
* Org. Synth. Synthetic Organic Chemistry Workshop Invitee (8/2023)
* FSU First Year Assistant Professor Fellowship (5/2019)
* Arnold and Mabel Beckman Postdoctoral Fellow (9/2016)
* Pfizer-UCLA Dissertation Award (6/2015)
* Ernest R. Hare, Jr. Memorial Scholarship for Research (11/2014)
* UCLA Chemistry and Biochemistry Travel Grant (8/2014)
* UCLA Dissertation Year Fellowship (7/2014–3/2015)
* NSF Predoctoral Graduate Research Fellowship (6/2011–6/2014)
* Keeler Music Scholarship (9/2009–5/2010)
* NSF-REU South America Fellowship (5/2009–7/2009)
* Furman Advantage Fellowship (5/2008–8/2008)
* Dreyfus Chemistry Scholar (9/2006–5/2010)
* Honor Scholar (9/2006–5/2010)
* Achiever Scholarship (9/2006–5/2010)

**Publications**

**27.** Leão, L. P. M.; Harbit, R. C.; Smith, J. M. “A Tactically Mild Suzuki Methylation” *Manuscript in Preparation.*

**26.** Dukes, D. M.; Atanassov, V. K.; Smith, J. M. “Total Synthesis of (+)-Tangutorine *via* Two-Stage Logic” *Manuscript in Preparation.*

**25.** Firestone, Z. D.; Grigolo, T. A.; Pernichelle, F. G.; Smith, J. M. “Enantioselective Total Synthesis of Aromatized Halicyclamines” *Manuscript in Preparation.*

**24.** London, H. C.; Chen, J.; Fosu, E. A.; Firestone, Z. D.; Lambert, E. C.; Smith, J. M.; Jakubikova, E.; Hanson, K. “Modulating Excited State Lifetimes in Cu(I) Complexes: The Role of Surface Binding Motifs” *ACS Appl. Energy Mater.* **2025**, *8*, 9530–9537*.*

**23.** Knight, B. J.; Grigolo, T. A.; Tolchin, Z. A.; Smith, J. M. “Azine Dearomatization in Natural Product Total Synthesis” *Chem. Eur. J.* **2025**, e202402413.

**22.** Smith, J. M. “Heterocyclic Surgery for Isotopic Labeling” *Synlett*, **2025**, *36*, 601–606.

**21.** Dukes, D. M.; Atanassov, V. K.; Smith, J. M. “Enantioselective Total Synthesis of (+)-Cylindricine B” *Chem. Sci.* **2024**, *15*, 16554–16558.

**20.** Tolchin, Z. A.; Smith, J. M. “15NRORC: An Azine Labeling Protocol” *J. Am. Chem. Soc.* **2024**, *146*, 2939–2943.

**19.** Tolchin, Z. A.; Dukes, D. M.; Gharbaoui, L. M.; Smith, J. M. “Dearomative Access to (–)-Thebaine and Derivatives” *Org. Lett.* **2023**, *25*, 8424–8428.

**18.** Piwko, A. T.; Miller, B. G.; Smith, J. M. “Revisiting the Manzamine Biosynthetic Hypothesis” *Nat. Prod. Rep.***2023***, 40,* 964–971.

**17.** Knight, B. J.; Harbit, R. C.; Smith, J. M. “Six-Step Synthesis of (±)-Lysergic Acid” *J. Org. Chem.* **2023**, *88*, 2158–2165.

**16.** Grigolo, T. A.; Smith, J. M. “Regiodivergent Asymmtric Pyridinium Additions: Mechanistic Insight and Synthetic Applications” *Chem. Eur. J.* **2022**, 28, e202202813.

**15.** Grigolo, T. A.; Subhit, A. R.; Smith, J. M. “Regioselective Asymmetric Alkynylation of N-Alkyl Pyridiniums” *Org. Lett.* **2021**, *23*, 6703–6706.

**14.** Knight, B. J.; Tolchin, Z. A.; Smith, J. M. “A Predictive Model for Additions to N-Alkyl Pyridiniums” *Chem. Commun.* **2021**, *57*, 2693–2696.

**13.** Sui, X.; Grigolo, T. A.; O’Connor, C. J.; Smith, J. M. “*Ortho/Ipso* Alkylborylation of Aryl Iodides” *Org. Lett.* **2019**, *22*, 9251–9255.

**12.** dos PassosGomes, G.; Wimmer, A.; Smith, J. M.; König, B.; Alabugin, I. V. “CO2 or SO2: Should It Stay, or Should It Go?” *J. Org. Chem.* **2019**, *84*, 6232–6243.

**11.** Smith, J. M. Smith; Dixon, J. A.; deGruyter, J. N.; Baran, P. S. “Alkyl Sulfinates: Radical Precursors Enabling Drug Discovery.” *J. Med. Chem.* **2019**, *62*, 2256–2264.

**10.** Smith, J. M.; Harwood, S. J.; Baran, P. S. “Radical Retrosynthesis.” *Acc. Chem. Res.* **2018**, *51*, 1807–1817.

**9.** Picazo, E.; Morrill, L. A.; Susick, R. B.; Moreno, J.; Smith, J. M.; Garg, N. K. “Enantioselective Total Syntheses of Methanoquinolizidine-Containing Akuammiline Alkaloids and Related Studies.” *J. Am. Chem. Soc.* **2018**, *140*, 6483–6492.

**8.** Smith, J. M.; Qin, T.; Merchant, R. R.; Edwards, J. T.; Malins, L. R.; Liu, Z.; Che, G.; Shen, Z.; Shaw, S. A.; Eastgate, M. D.; Baran, P. S. “Decarboxylative Alkynylation” *Angew. Chem. Int. Ed.* **2017**, *56*, 11906–11910.

**7.** Chu, H.; Smith, J. M.; Felding, J.; Baran, P. S. “Scalable Synthesis of (–)-Thapsigargin” *ACS Cent. Sci.* **2017**, *3*, 47–51.

**6.** Moreno, J.; Picazo, E.; Morrill, L. A.; Smith, J. M.; Garg, N. K. “Enantioselective Total Syntheses of Akuammiline Alkaloids (+)-Strictamine, (–)-2(S)-Cathafoline, and (–)-Aspidophylline A” *J. Am. Chem. Soc.* **2016**, *138*, 1162–1165.

**5.** Smith, J. M.; Moreno, J.; Boal, B. W.; Garg, N. K. “Fischer Indolizations as a Strategic Platform for the Total Synthesis of Picrinine” *J. Org. Chem.* **2015**, *80*, 8954–8967.

**4.** Smith, J. M.; Moreno, J.; Boal, B. W.; Garg N. K. “Cascade Reactions: A Driving Force in Akuammiline Alkaloid Total Synthesis” *Angew. Chem. Int. Ed.* **2015**, *54*, 400–412.

**3.** Smith, J. M.; Moreno, J.; Boal, B. W.; Garg, N. K. “Total Synthesis of the Akuammiline Alkaloid Picrinine” *J. Am. Chem. Soc.* **2014**, *136*, 4504–4507.

**2.** Ungureanu, S.; Meadows, M.; Smith, J.; Duff, D. B.; Burgess, J. M.; Goess, B. C. “Total Synthesis of (±)-Hibiscone C” *Tetrahedron Lett.* **2011**, *52*, 1509–1511.

**1.** Rodrigues Jr., M. T.; Gomes, J. C.; Smith, J.; Coelho, F. “Simple and Highly Diastereoselective Access to 3,4-substituted tetrahydro-1,8-naphthyridines from Morita–Baylis–Hillman Adducts” *Tetrahedron Lett.* **2010**, *51*, 4988–4990.

**Presentations**

**45. Redox Economic Alkaloid Synthesis*.*** Joel M. Smith, Eli Lilly and Co., Indianapolis, IN, July 2025.

**44.** **Redox Economic Alkaloid Synthesis (Talk).**Joel M. Smith, *Heterocyclic Compounds Gordon Research Conference,* Newport, RI, June 2025.

**43. Redox Economic Alkaloid Synthesis**. Joel M. Smith, *Brandeis University*, Waltham, MA, April 2025.

**42. Redox Economic Alkaloid Synthesis**. Joel M. Smith, *Marquette University*, Mobile, AL, November 2024.

**41. Redox Economic Alkaloid Synthesis**. Joel M. Smith, *U. of Southern Alabama*, Mobile, AL, Sept. 2024.

**40**. **Redox Economic Alkaloid Synthesis (Talk).**Joel M. Smith, *Natural Products and Bioactive Compounds Gordon Research Conference,* Andover, NH, July 2024.

**39. Dearomative Alkaloid Synthesis.** Joel M. Smith, *California Inst. of Technology,* Pasadena, CA, April 2024.

**38. Dearomative Alkaloid Synthesis.** Joel M. Smith, *UC San Diego,* San Diego, CA, April 2024.

**37. Dearomative Alkaloid Synthesis.** Joel M. Smith, *Scripps Research,* San Diego, CA, April 2024.

**36. Leveraging Aziniums as Malleable Synthetic Building Blocks.** Joel M. Smith, *ACS National Meeting,* New Orleans, LA, March 2024.

**35. Dearomative Alkaloid Synthesis.** Joel M. Smith, *Boston University,* Boston, MA, February 2024.

**34. Dearomative Alkaloid Synthesis.** Joel M. Smith, *UC Santa Barbara,* Santa Barbara, CA, November 2023.

**33. Dearomative Alkaloid Synthesis.** Joel M. Smith, *UC Los Angeles,* Los Angeles, CA, November 2023.

**32. Dearomative Alkaloid Synthesis.**Joel M. Smith, *UC Irvine,* Irvine, CA, November 2023.

**31. Dearomative Alkaloid Synthesis.**Joel M. Smith, *University of Delaware,* Newark, DE, Sept. 2023

**30. Dearomative Alkaloid Synthesis.**Joel M. Smith, *Temple University,* Philadelphia, PA, Sept. 2023.

**29. Dearomative Alkaloid Synthesis.**Joel M. Smith, *University of Pennsylvania,* Philadelphia, PA, Sept. 2023.

**28.** **Redox Economic Alkaloid Synthesis.** Joel M. Smith, *ACS National Meeting,* San Francisco, CA, Aug. 2023.

**27. Dearomative Alkaloid Synthesis.** Joel M. Smith, *University of Utah*, Salt Lake City, UT, April 2023.

**26. Dearomative Alkaloid Synthesis.**Joel M. Smith, *UTSW Medical Center,* Dallas, TX, March 2023.

**25. Dearomative Alkaloid Synthesis.**Joel M. Smith, *Baylor University,* Waco, TX, March 2023

**24. Dearomative Alkaloid Synthesis.**Joel M. Smith, *Duke University,* Durham, NC, March 2023.

**23. Dearomative Alkaloid Synthesis.**Joel M. Smith, *NC State University,* Raleigh, NC, March 2023.

**22. Dearomative Alkaloid Synthesis.**Joel M. Smith, *RTI International,* Res. Triangle Park, NC, March 2023.

**21. Dearomative Alkaloid Synthesis.**Joel M. Smith, *Auburn University,* Auburn, AL, November 2022.

**20. Dearomative Alkaloid Synthesis.**Joel M. Smith, *University of Florida,* Gainesville, FL, October 2022.

**19. Dearomative Alkaloid Synthesis.**Joel M. Smith, *International Society of Heterocyclic Chemistry,* Santa Barbara, CA, August 2022.

**18. Dearomative Alkaloid Synthesis (Poster).**Joel M. Smith, *Natural Products and Bioactive Compounds Gordon Research Conference,* Andover, NH, August 2022.

**17. Dearomative Alkaloid Synthesis.**Joel M. Smith, *Southeast Regional Meeting of the American Chemical Society,* Birmingham, Alabama. 11/2021.

**16. Dearomative Alkaloid Synthesis.**Joel M. Smith, *University of West Florida*. 10/2021.

**15. Dearomative Alkaloid Synthesis.**Joel M. Smith, *Washington and Lee University*. 5/2021.

**14. Strategies and Tactics Inspired by Biologically Active Alkaloids** (**Talk).** Joel M. Smith *University of Florida*. Remote Presentation. 11/2020.

**13. Strategies and Tactics Inspired by Biologically Active Alkaloids (Talk).** Joel M. Smith, *Furman University*. Remote Presentation. 10/2020.

**12. Strategies and Tactics Inspired by Biologically Active Alkaloids (Talk).** Joel M. Smith, *Southeast Regional Meeting of the American Chemical Society*, Savannah, GA, October 2019.

**11. Strategic and Tactical Inspiration from Bioactive Alkaloids (Poster).** Joel M. Smith, *Natural Products and Bioactive Compounds Gordon Research Conference*, Andover, NH, August 2019.

**10. Synthetic and Mechanistic Insight in Innate Radical Cross Coupling (Talk).** Joel M. Smith, *FAME*, Tampa, FL, May 2019

**9. Cyclase/Oxidase Synthesis: Inspiration and Implementation (Poster)**. Joel M. Smith, Hang Chu, Tian Qin, Rohan R. Merchant, Jacob T. Edwards, Lara R. Malins, Phil S. Baran, *Arnold O. Beckman Symposium*, Irvine, CA, August 2017.

**8. Total Synthesis of the Akuammiline Alkaloid Picrinine (Talk).** Joel M. Smith\*, Jesus Moreno, Ben W. Boal, and Neil K. Garg, *ACS National Meeting*, San Francisco, CA, August 2014

**7.** **Total Synthesis of the Akuammiline Alkaloid Picrinine (Talk).** Joel M. Smith, *ACS Div. Org. Chem. Graduate Research Symposium*, Irvine, CA, July 2014.

**6. Progress Towards the Total Synthesis of Picrinine (Poster).** Joel M. Smith\*, Jesus Moreno, Ben W. Boal, and Neil K. Garg, *UCLA Seaborg Symposium*, Los Angeles, CA, October 2013.

**5. Progress Towards the Total Synthesis of Picrinine (Poster).** Joel M. Smith\*, Jesus Moreno, Ben W. Boal, and Neil K. Garg, *UCLA Winstein Symposium*, Los Angeles, CA, October 2012.

**4. Progress Towards the Total Synthesis of Picrinine (Poster).** Joel M. Smith\*, Ben W. Boal, and Neil K. Garg, *ACS National Meeting,* San Diego, CA, March 2012.

**3. Progress Towards the Total Synthesis of Picrinine (Poster).** Joel M. Smith\*, Ben W. Boal, and Neil K. Garg, *SCALACS Western Regional Meeting*, Pasadena, CA, November 2011.

**2. Synthesis of 1,3-Oxazinanones from Morita–Baylis–Hillman Adducts (Talk).** Joel M. Smith\* and Fernando Coelho, *Southeast Regional Meeting of the American Chemical Society*, San Juan, Puerto Rico, October 2009.

**1. Progress Towards the Synthesis of Hibiscone C (Poster).** Joel M. Smith\*, Justin Goodwin, Ashley Windrum, and Brian C. Goess, *Southeast Regional Meeting of the American Chemical Society,* Nashville, TN, October 2008.