

# Joel Michael Smith, PhD

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## 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

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

- May 2015 to present; Advisor: Phil S. Baran
- Developing 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 long-standing akuammiline targets picrinine and strictamine.

### **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

- 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

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

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, *SERMACS 2009*, 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, *SERMACS 2008*, Nashville, TN, October 2008.