

# CARA A. MOSLEY

## EDUCATION

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- AUGUST 2004-  
PRESENT
- Emory University Atlanta, GA
- Ph.D. candidate, Department of Chemistry
  - Graduate GPA 3.63/4.0
  - Expected graduation date: August 2009
- AUGUST 2000-  
MAY 2004
- Georgia Institute of Technology Atlanta, GA
- Bachelor of Science in Biochemistry (Department of Chemistry)
  - Chemistry GPA 3.76/4.0, Overall GPA 3.55

## WORK EXPERIENCE

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- JAN 2008-  
JULY 2008
- Emory University Atlanta, GA
- Position: Intern at Office of Technology Transfer
- Works with case managers and inventors regarding invention disclosures from Emory faculty and students. Intern responsibilities include generating technology assessments, writing non-confidential summaries of technologies for the website, meeting with inventors, and participating in patent filing and marketing strategy discussions. Technology assessments involve thorough prior art searching using various patent and literature databases in addition to conducting full market analyses.
- AUGUST 2004-  
PRESENT
- Position: Graduate researcher for Dr. Dennis Liotta in collaboration with Dr. Stephen Traynelis, Emory University pharmacology department
- Synthesis of 3 novel classes of NR2D-selective N-Methyl-D-Aspartate (NMDA) receptor modulators. Currently developing structure-activity-relationships around these classes of compounds, which could be useful in treatment of Parkinson's disease.
  - Synthesis and development of a novel series of pH-dependent NR2B-selective NMDA receptor antagonists for the treatment and prevention of neurodegenerative diseases including stroke and neuropathic pain.
- MAY 2003-  
DECEMBER 2003
- AtheroGenics, Inc. Alpharetta, GA
- Position: Summer intern and fall part-time employee
- Completed multi-step synthesis of novel drug targets for treatment of chronic inflammatory diseases.
- JANUARY 2003-  
MAY 2004
- Georgia Tech School of Chemistry and Biochemistry Atlanta, GA
- Position: Undergraduate research assistant for Dr. Christoph J. Fahrni
- Completed 11-step synthesis of ratiometric fluorescent sensors for use in detecting intracellular Zn(II) via excited-state intramolecular proton transfer.

## TEACHING AND ADVISING EXPERIENCE

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- AUGUST 2004-  
AUGUST 2005
- Emory University
- Position: Graduate teaching assistant for undergraduate organic chemistry labs I and II
- OCTOBER  
2005-PRESENT
- Position: Mentor to graduate rotation students (7) in Dennis Liotta research lab
- Responsibilities include: instruction and refinement of a student's synthesis skills depending on

experience, familiarization with group proceedings and ensuring positive relations with the group, introduction to research projects, monitoring student progress, and evaluation of rotation performance

## SKILLS

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- Capable of multi-step syntheses of compound libraries utilizing wet chemistry and automated parallel synthesis techniques.
- Experienced in handling air-sensitive materials under inert atmosphere; monitoring reactions via TLC, HPLC, and LC/MS; purification using chromatography and recrystallization; analysis and characterization based on UV-Vis, FT-IR, GC, HPLC, NMR, combustion analysis, and MS.
- Liaison between chemistry, pharmacology, and business sector regarding NMDA project. Proficient at presenting complex chemical synthesis and biological data to audiences of various backgrounds.
- Microsoft Office, ChemDraw, Beilstein, SciFinder Scholar, and E-Notebook.

## ACADEMIC AWARDS AND MEMBERSHIPS

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- Pi Alpha Professional Fraternity Secretary, Emory University Chemistry Department (2005-2006)
- Awarded and participated in Undergraduate Research Internship Program (URIP), Georgia Institute of Technology, School of Chemistry and Biochemistry (Summer 2003)
- Alpha Chi Sigma Professional Chemistry Fraternity, Georgia Institute of Technology (2002-2004)
- American Chemical Society (2003-Present)
- Society for Neuroscience (2008-Present)

## PUBLICATIONS AND PATENTS

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- **Mosley, C. A.**; Liotta, D. C.; and Snyder, J. P., Highly Active Anti-Cancer Curcumin Analogs. In *The Molecular Targets and Therapeutic Uses of Curcumin in Health and Disease*; Aggarwal, B. B., Surh, Y., Shishoda, S. Eds.; Adv. Exp. Med. Biol.; Springer: New York, 2007; 595, 77-103.
- Dravid, S. M.; Erreger, K.; Yuan, H.; Nicholson, K.; Le, P.; Lyuboslavsky, P.; Almonte, A.; Murray, E.; **Mosley, C.**; Barber, J.; French, A.; Balster, R.; Murray, T. F.; Traynelis, S. F. Subunit-specific mechanisms and proton sensitivity of NMDA receptor channel block. *J. Physiol.* **2007**, *581*, 107-28.
- Shoji, M.; Sun, A.; **Mosley, C. A.**; Kiesel, W.; Lu, Y. J.; Shim, H.; McCarey, B. E.; Nichols, C.; Parker, E. T.; Pohl J.; Alizadeh, A. R.; Liotta, D. C.; Snyder, J. P. Targeted therapy for tumor angiogenesis with a novel synthetic curcumin analog EF-24 conjugated to factor VIIa. *J. Drug Targeting* **2008**, *16*, 185-197.

## REFERENCES:

Dr. Dennis C. Liotta (Professor/Graduate Advisor). Emory University, Department of Chemistry  
Phone: 404-727-6602; e-mail: [dliotta@emory.edu](mailto:dliotta@emory.edu)

Dr. Stephen F. Traynelis (Professor). Emory University, Department of Pharmacology  
Phone: 404-727-0357; e-mail: [strayne@emory.edu](mailto:strayne@emory.edu)

Dr. Lawrence J. Wilson (Director of Medicinal Chemistry). NeurOp Inc.  
Phone: 404-727-3277; e-mail: [lwilson@neuropinc.com](mailto:lwilson@neuropinc.com)