

# Donna Marie Smith

Department of Chemistry & Biochemistry  
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## EDUCATION

University of Virginia, Charlottesville, VA 22901  
M.S.; Synthetic Organic Chemistry, December 1994  
Research Advisor: Dr. Richard Sundberg  
Topic: Synthesis of Potential Macrocyclics

Hartwick College, Oneonta, NY 13820  
B.S. Chemistry, *magna cum laude*, Departmental Distinction  
Minor in Physics, May 1990  
Overall GPA: 3.61/4.00

## EXPERIENCE

Summer 2014-Present

Chemistry Instructor

Department of Chemistry & Biochemistry, Washington & Lee University,  
Lexington, VA

- Taught courses in CHEM 243—Organic Spectroscopic Methods, CHEM 241L—Organic Chemistry I Laboratory, and CHEM 242L—Organic Chemistry II Laboratory, CHEM 242—Organic Chemistry II lecture, CHEM 110—General Chemistry laboratory

Fall 1999-Spring 2014

Adjunct Professor

Department of Chemistry, Virginia Military Institute,  
Lexington, VA

- Initiated and taught a highly successful Summer Session 2013 organic chemistry lecture and lab
- Lectured students in CH 131 and CH 132, a general chemistry class for non-science majors
- Lectured students in CH 137 and CH 138, an introductory college chemistry class for science and engineering majors
- Responsible for all aspects of lecture classes: establishing office hours; designing homework assignments, quizzes and exams; grading of assignments and submission of grades
- Performed as course coordinator and instructor for organic chemistry labs: Spring 2007 to Spring 2010 and Summer 2013
- Instructed and supervised students during general chemistry laboratories for both liberal arts and science/engineering majors in CH 111, CH 112, CH 117 and CH 118
- Tutored students in general chemistry (CH 137 and CH 138) and organic chemistry as an Athletic Academic Advising Tutor

1997-1998

Associate Research Scientist

Bayer Pharmaceuticals, West Haven, CT

- Advisor: Dr. Brian Dixon
- Performed the synthesis of target molecules in the area of osteoporosis research
- 1995-1997      Laboratory Specialist  
University of Virginia, Cardiovascular Research Center, Charlottesville, VA  
Advisor: Dr. Larry Karns
- Performed molecular biology and tissue culture techniques (Biosafety Level 2) as a member of the Transfection Core Facility for the program project grant “Gene Transfer Principles for Heart, Lung, and Blood Diseases”
  - Performed work involving gene manipulation for transfections
  - Aided in the study of the function of alpha<sub>2</sub>-Macroglobulin by using Baculovirus to express mutant forms of *a*<sub>2</sub>-M
- 1992-1995      Graduate Research Assistant  
Department of Chemistry, University of Virginia, Charlottesville,
- Performed research in the synthesis of substituted imidazo[1,2-*a*]pyridines as potential antifilarial agents
  - Wrote quarterly research reports and presented oral literature/research updates
- 1991-1993      Graduate Teaching Assistant  
Department of Chemistry, University of Virginia, Charlottesville,  
Advisor: Dr. Donald Hunt
- Instructed and supervised students in organic chemistry laboratory sections
- Summer 1990      Summer Research Employment  
WestHollow Research Center, Shell Oil, Houston, TX  
Advisor: Dr. Richard A. Kemp
- Aided in the synthesis of catalysts for the Shell Higher Olefin Process (SHOP) for converting ethylene to linear detergent-range olefins
- Summer 1989 &  
Summer 1988      Summer Intern  
Proctor and Gamble Pharmaceuticals, Norwich, NY  
Advisor: Dr. Thomas P. Demuth
- Executed a multi-step synthesis of a novel anti-infective compound for biological characterization
  - Performed a side project that provided a key intermediate to a new class of drugs
- Fall 1989-  
Spring 1990      Senior Thesis Project  
Proctor and Gamble Pharmaceuticals, Norwich, NY  
Advisors: Dr. Thomas Schwan and Dr. Mark Calcagno
- Designed senior Thesis Project through P&G Pharmaceuticals, which dealt with the biomimetic hydroxylation of Quinidine and the stereospecific synthesis of beta-lactones
- Summer 1987-      Chemistry/Physics Lab Assistant

Spring 1990

Hartwick College, Oneonta, NY

- Inventoried Chemistry and Physics labs

## HONORS

Oyaron Scholar

- Four year full-tuition academic scholarship at Hartwick College

1990 American Chemical Society Binghamton Section Award

- Award given to outstanding graduating chemistry senior

Otto Steinbach Award in Chemistry (1989-1990)

- Scholarship given based upon financial need and outstanding scholarship

Saxton Undergraduate Fellowship in Chemistry and Physics (1987-1988)

- Stipend given to outstanding sophomore in the sciences

Chemical Rubber Company Outstanding Freshman (1987-1988)

- Honor given to the top student in general chemistry

## PUBLICATIONS

Richard J. Sundberg, Sujay Biswas, Krishna Kumar Murthi, and Donna Rowe, "Bis-Cationic Heteroaromatics as Macroparasiticides: Synthesis of Bis-Amidine and Bis-Guanylhydrazone Derivatives of Substituted Imidazo[1,2-a]pyridines". *J. Med. Chem.* **1998**, 41, 4317-4328.

Alty, Lisa T; France, Marcia B.; Alty, Isaac G.; Saber, Christine A.; Smith, Donna M. "Synthesis of 1,1-Diphenylethylene (DPE): The Marriage of a Grignard Reaction and a Column Chromatography Experiment," submitted to *J Chem. Educ.*, March 20, 2015, Manuscript ID: ed-2015-002126.

"General Chemistry Laboratory Manual, CH118" at Virginia Military Institute. Smith, Donna and Harrison, Daniel. "General Chemistry Laboratory Manual, CH118". Sagamore Beach, MA: Academx Publishing Services, Inc., 2015. Print. (ISBN-13: 978-1-60036-861-5)