

• Gregory R. Cook •

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Curriculum Vitae Summary

Academic Background

- ▶ 1988 B.A. (Honors), Chemistry and Math, Olivet College, Olivet, MI.
- ▶ 1990 M.S., Chemistry, Michigan State University, East Lansing, MI. Advisor, John R. Stille
- ▶ 1993 Ph.D., Chemistry, Michigan State University, East Lansing, MI. Advisor, John R. Stille
- ▶ 1994 - 1996 Postdoctoral Research Associate, Stanford University, Stanford, CA. Advisor, Barry M. Trost

Academic Experience/Employment History

- ▶ 2002 - Present Associate Professor, North Dakota State University, Fargo, ND.
- ▶ 1996 - 2002 Assistant Professor, North Dakota State University, Fargo, ND.
- ▶ 1994 - 1996 NIH Postdoctoral Research Associate, Stanford University, Stanford,

Other Professional Experience

- ▶ 2008 Chair, Gordon Research Conference on Organic Reactions and Processes
- ▶ 2007 Vice-Chair, Gordon Research Conference on Organic Reactions and Processes
- ▶ 2006 Review Panel for State of Michigan 21st Century Jobs Fund
- ▶ 2006 External PhD Examiner, University of British Columbia
- ▶ 2005 - Present Mentor for ND-INBRE Faculty at Minot State University
- ▶ 2005 External PhD Examiner, University of Windsor
- ▶ 2005 Consultant, Pfizer
- ▶ 2004 External PhD Examiner, Indian Associate for the Cultivation of Science, Jadavpur
- ▶ 2004 Reviewer for State of Michigan AAAS Funds Applications
- ▶ 2003 - Present Member, NIH Fellowships Study Section
- ▶ 2000 Consultant, Merck & Co.
- ▶ 2000 Co-Organized "Organic Chemistry for the 21st Century" symposium, ACS Regional Meeting, Fargo
- ▶ 1999 Consultant, NSC Technologies
- ▶ 1998, 2000 Consultant, Affymax

Honors and Awards

- ▶ 2006 College of Science and Math award for Excellence in Teaching
- ▶ 2003 College of Science and Math award of appreciation for excellence in Teaching and Research
- ▶ 2002 Promotion to Associate Professor
- ▶ 2002 Tenure Granted
- ▶ 1999 National Science Foundation CAREER Award
- ▶ 1994-1995 National Institutes of Health Postdoctoral Fellowship
- ▶ 1992-1993 BASF Graduate Fellowship
- ▶ 1990-1992 Merit Level Teaching Assistant
- ▶ 1991 H. T. Graham Graduate Fellowship
- ▶ 1988 American Institute of Chemists Award
- ▶ 1987 Omicron Delta Kappa National Honor Society

Professional Memberships

- ▶ American Chemical Society (1988 - present)
- ▶ Red River Valley American Chemical Society Local Section
- ▶ American Chemical Society Division of Organic Chemistry
- ▶ American Chemical Society Division of Inorganic Chemistry
- ▶ American Chemical Society Division of Medicinal Chemistry
- ▶ International Society of Heterocyclic Chemistry (1997 - present)
- ▶ Red River Valley American Wine Society (Chair 2004 - present)

• RESEARCH •

Publications (10 selected, 33 total)

- ▶ "Stereoselective Synthesis of D- erythro - and L- threo -Sphinganine via Palladium-Catalyzed Equilibration and Suzuki Coupling" Cook, G. R. and Pararajasingham, K *Tetrahedron Letters* **2002**, 43, 9027-9029.
- ▶ "Hydrogen Bond Directed Highly Regioselective Palladium-Catalyzed Allylic Substitution" Cook, G. R.; Yu, H.; Sankaranarayanan, S.; Shanker, P. S. *J. Am. Chem. Soc.* **2003**, 125, 5115.
- ▶ "Highly Diastereoselective Indium-Mediated Allylation of Chiral Hydrazones" Cook, G. R.; Maity, B.; Kargbo, R. *Org. Lett.* **2004**, 6, 1741.
- ▶ "Nitrogen Heterocycles via Palladium-Catalyzed Carbocyclization. Formal Synthesis of (+)-a-Allokainic Acid" Cook, G. R.; Sun, L. *Org. Lett.* **2004**, 6, 2481.
- ▶ "Synthesis and Evaluation of Novel Oxazoline MMP Inhibitors" Cook, G. R.; Manivannan, E.; Underdahl, T.; Lukacova, V.; Zhang, Y.; Balaz, S. *Bioorg. Med. Chem. Lett.* **2004**, 14, 4935.
- ▶ "Catalytic Enantioselective Indium-Mediated Allylation of Hydrazones" Cook, G. R.; Kargbo, R.; Maity, B. *Org. Lett.*, **2005**, 7, 2767.
- ▶ "Tandem Palladium-Catalyzed Allene Arylation and Oxazoline Formation " Cook, Gregory R. and Xu, Wei *Heterocycles* **2006**, 67, 215. Special Edition Honoring Prof. Trost.
- ▶ "Atom Transfer Cyclization Catalyzed by InCl₃ via Halogen Activation" Cook, Gregory R. and Hayashi, Ryuji *Org. Lett.* **2006**, 8, 1045.
- ▶ "Remarkably Mild and Efficient Intramolecular Friedel-Crafts Cyclization Catalyzed by In(III)" Hayashi, R.; Cook, G. R. *Org. Lett.* **2007**, in press.
- ▶ "Readily Accessible, Modular and Tuneable BINOL 3,3'-Perfluoroalkylsulfones: Highly Efficient Catalysts for Enantioselective In-Mediated Imine Allylation" Robert Kargbo, Yoko Takahashi, Santosh Bhor, Gregory R. Cook, Guy C. Lloyd-Jones, Ian R. Shepperson, *J. Am. Chem. Soc.* **2007**, in press.

Other Research Highlights

- ▶ **69 Meeting Abstracts and Presentations** at national and international meetings.
- ▶ **68 Invited Seminars** at national and international universities and industry
- ▶ **17 Graduate Students** trained in my labs
- ▶ **20 Undergraduate Students** have been trained in my labs
- ▶ **8 Postdoctoral Fellows** have been trained in my labs

Current Research Support

- ▶ National Science Foundation (CHE-0616485) (**3rd renewal**) "Stereoselective Indium-Mediated Reactions for Organic Synthesis" awarded **\$527,000** for four years. (10/1/06 - 9/30/10) *Program officer awarded an additional year on top of the three years requested funding due to the outstanding peer review of this proposal.*
- ▶ ND EPSCoR Infrastructure Improvement Program-Doctoral Dissertation Assistantship awarded **\$30,000** for two years. (8/16/06 - 8/15/08)
- ▶ National Institutes of Health (COBRE), "New Strategies for Targeting Proteases in Disease" a Center of Biomedical Research Excellence center grant (P20 RR15566-01). Co-PI with M. Sibi (Center Director), S. Balaz, S. Mallik, K. Rodgers, and I. Seghal. awarded **\$8.3 million** for five years (2/1/01 - 1/31/06 - extended to 6/30/07)

Pending Research Support

- ▶ National Institutes of Health (1R15CA120037-01) "Novel Approaches to the Inhibition of Histone Deacetylases" [submitted October 25, 2006] Requested \$213,750 for two years.
- ▶ National Institutes of Health (P20 RR015566-06A2) "New Strategies for Targeting Protease in Disease" Co-PI with Mukund Sibi (Center Director and PI), Glen Dorsam, Sheri Dorsam, Bin Guo, Jane Schuh [submitted October 2006] Requested \$10,500,500 for five years

Funding History

- ▶ In addition to the grants above, while at NDSU I have been awarded a total of **\$1,699,080** in external and internal funding for research and department equipment and facilities.

• TEACHING •

While at NDSU I have developed curriculum for many courses at the undergraduate and graduate level. I have taught both large service organic courses, Chem 341 and 342 several times. I have developed extensive web-based materials for this course that have been very popular by the students. I have taught most of the graduate organic courses including Physical Organic (Chem 741), Organic Spectroscopy (Chem 744 and 754), Organic Synthesis (Chem 745) as well as a special topics course on organometallics. *My love of teaching is evident and the reason I am in academia.* In addition to my normal teaching load, Prof. Mukund Sibi and I continue to teach our Wednesday Organic Meetings scientific literature course on an extra-load basis. This course is taught every semester, including summer. Participation ranges from 15-25 graduate students and postdoctoral associates.

Recent Teaching Highlights

- ▶ I received the **2006 College of Science and Math Award for Excellence in Teaching.**
- ▶ **Chem 341:** In fall 2006 I obtained the *highest course and instructor ratings in department history* for this large (274) service course (*course: 4.0, instructor: 4.6*).
- ▶ **Chem 745:** Both times I have taught this course, the students evaluated it very highly (2005: *course: 4.6, instructor: 4.9*; 2006: *course: 4.7, instructor: 4.9*)
- ▶ Research is an integral part of teaching and I strive to include undergraduate researchers in my labs. I informally teach my graduate students and postdocs every day.

• SERVICE •

Department Committees (current)

- ▶ **Chair**, department safety committee (2005-present)
- ▶ **Chair**, media relations and publicity committee (2005-present)
- ▶ Member, Seminar Program Committee (1998-present)
- ▶ Member, Broberg Lectureship Committee (2006-present)
- ▶ Member, Office Staff Search Committee (2007)

College Committees (current)

- ▶ **Chair**, Graduate Student Progress Committee (2004-present, member since 1998)
- ▶ Member, Dean's Advisory Committee

University Committees (current)

- ▶ College Representative to the Academic Standards Committee (2004-present)
- ▶ Member, University Grade Appeals Board (2004-present)
- ▶ Member, Hazardous materials Handling Facility Planning Committee (2005-present)
- ▶ Member, University Senate (2006-present)
- ▶ Member, Bookstore Advisory Committee (2006-present)
- ▶ Member, Lab and Chemical Safety Committee (2006-present)

Other Service

- ▶ **Chair-elect**, 2008 Gordon Research Conference on Organic Reactions and Processes, **Vice-Chair** in 2007.
- ▶ Mentor for ND-INBRE faculty at Minot State University (2005-present)
- ▶ NIH Study Section Member for graduate/postdoctoral fellowships (2003-present)
- ▶ Presented at the NDSU NSF Career Proposal Workshop (2006)
- ▶ External PhD examiner, Windsor, British Columbia, and Jadavpur
- ▶ Reviewer for many panels, journals, and granting agencies
- ▶ Session chair for National ACS Meetings
- ▶ Co-PI for COBRE proposals
- ▶ Design and maintain Department web site
- ▶ Past member of nearly every Department Committee