

**BIOGRAPHICAL SKETCH**

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NAME Amit Basu		POSITION TITLE Assistant Professor	
eRA COMMONS USER NAME			
EDUCATION/TRAINING ( <i>Begin with baccalaureate or other initial professional education, such as nursing,</i>			
INSTITUTION AND LOCATION	DEGREE ( <i>if applicable</i> )	YEAR(s)	FIELD OF STUDY
Reed College, Portland, OR	B.A.	1988-92	Chemistry
University of Illinois at Urbana-Champaign, IL	Ph.D.	1992-96	Chemistry
Princeton University, Princeton, NJ	Post-doc	1996-99	Chemistry

**A. Positions and Honors****Positions**

Assistant Professor of Chemistry, Brown University, 1999-present

Postdoctoral Research Associate, Princeton University, 1996-1999

Graduate Research Assistant, University of Illinois, 1994-1996

Teaching Assistant, University of Illinois, 1992-1994

**Activities**

invited participant, NSF Workshop on Physical Organic Chemistry, June 2001

ad hoc Study Section Member, NIH Bioorganic and Natural Products Study Section, Feb. 2003

invited participant DARPA/NIH/Juvenile Diabetes Research Foundation Workshop on Wound Healing, Sep. 2003

invited lecturer IUPAC International Conference on Biodiversity and Natural Products Jan. 2004

invited lecturer 2005 Gordon Research Conference on Carbohydrates

**Honors**

RC Fuson Research Award, 1995

Department of Education/Chevron Graduate Fellowship, 1994-1995

Research Innovation Award, 2001-2006

NSF CAREER Award 2002-2006

Mizutani Award in Glycoscience 2005

**B. Peer-reviewed publications**

14. "Synthesis of the glycosphingolipid  $\beta$ -galactosyl ceramide and analogs via olefin cross metathesis." A. N. Rai and A. Basu. *J. Org. Chem.* **2005**, 70 8228-8230.

13. "Glycosidase Inhibition by 1-Glycosyl-4-Phenyl Triazoles" L. L. Rossi and A. Basu. *Bioorg. Med. Chem. Lett.* **2005**, 15, 3596-3599.

12. "Sphingolipid synthesis via olefin cross metathesis: Preparation of a differentially protected building block and application to the synthesis of *D-erythro*-ceramide. A. N. Rai and A. Basu *Org. Lett.* **2004**, 6, 2861-2863.

11. "Studies of the Carbohydrate-Carbohydrate Interaction Between Lactose and GM<sub>3</sub> using Langmuir Monolayers and Glycolipid Micelles" *Glycoconj. J.* **2004**, 21, 89-95.

10. "Lipopolysaccharide identification with functionalized polydiacetylene liposome sensors." M. Rangin and A. Basu. *J. Am. Chem. Soc.* **2004**, *124*, 5038-5039.
9. "3-Methoxycarbonyl-5-nitrophenyl boronic acid: High affinity diol recognition at neutral pH." H. R. Mulla, N. J. Agard and A. Basu *Bioorg. Med. Chem. Lett.* **2004**, *14*, 25-27.
8. "A Rapid and Efficient Method for *para*-Methoxybenzyl Ether Formation with Lanthanum Triflate." A. N. Rai and A. Basu. *Tetrahedron. Lett.* **2003**, *44*, 2267-2269.
7. "Overcoming Degeneracy in Carbohydrate Recognition." A. Basu and D. Kahne. *Angew. Chem. Int. Ed. Engl.* **2003**, *42*, 2504-2506.
6. "Probing Specificity in Carbohydrate-Carbohydrate Interactions with Micelles and Langmuir Monolayers." P. V. Santacrose and A. Basu. *Angew. Chem. Int. Ed. Engl.* **2003**, *42*, 95-98.
5. "Configurational Stability and Stereoinformation Transfer in the Reactions of Enantioenriched Organolithium Reagents." A. Basu and S. Thayumanavan *Angew. Chem. Int. Ed. Engl.* **2002**, *41*, 716-738.
4. "Two Different Pathways of Stereoinformation Transfer: Asymmetric Substitutions in the (-)-Sparteine Mediated Reactions of Laterally Lithiated *N,N*-Diisopropyl-*o*-ethyl benzamide and *N*-Pivaloyl-*o*-ethyl aniline." S. Thayumanavan, A. Basu, and P. Beak *J. Am. Chem. Soc.* **1997**, *119*, 8209-8216.
3. "Synthetic and Mechanistic Studies of Organolithium Complexes: Regioselective, Diastereoselective and Enantioselective Lithiation-Substitution Reactions." P. Beak, A. Basu, D. J. Gallagher, Y. S. Park, and S. Thayumanavan *Acc. Chem. Res.* **1996**, *29*, 552-560.
2. "Pathways for Stereoinformation Transfer: Enhanced Enantioselectivity via Diastereomeric Recycling of Organolithium/(-)-Sparteine Complexes." A. Basu, D. J. Gallagher, and P. Beak *J. Org. Chem.* **1996**, *61*, 5718-5719. Correction: *J. Org. Chem.* **1997**, *62*, 1908.
1. "Control of the Enantiochemistry of Electrophilic Substitutions of *N*-Pivaloyl- $\alpha$ -lithio-*o*-ethyl aniline: Stereoinformation Transfer Based on the Method of Organolithium Formation." A. Basu and P. Beak *J. Am. Chem. Soc.* **1996**, *118*, 1575-1576.