**Complex Carbohydrate Research Center at UGA**

**Research Mission.** Since its founding in 1985, scientists at the Complex Carbohydrate Research Center (CCRC) have studied the structures and functions of the complex carbohydrates of plants, microbes and animals to determine the role of carbohydrates in growth and development, host-pathogen interactions and disease processes. The seventeen research groups at the CCRC use and develop diverse analytical techniques, including mass spectrometry, nuclear magnetic resonance (NMR) spectroscopy, computer modeling and software, tissue culture, confocal microscopy, immunocytochemistry, molecular biology, and chemical and enzymatic synthesis techniques.

**Federal Centers.** The CCRC is the home of five federally designated centers: the Department of Energy-funded Plant and Microbial Complex Carbohydrate Center, the National Science Foundation-funded Genomics Center: A Monoclonal Antibody Toolkit for Functional Genomics, the National Institutes of Health/NCRR-funded Research Resource for Integrated Glycotechnology, the NIH/NCRR-funded Integrated Technology Resource for Biomedical Glycomics and the NIH/NIGMS-funded Southeast Collaboratory for Biomolecular NMR.

**Facilities.** The CCRC occupies an approximately 140,000 sq.-ft. building specifically designed for the interdisciplinary and equipment-intensive nature of carbohydrate science. The center includes an analytical service facility that processes samples from researchers in both academia and industry. The building is organized to optimize cooperation and collaboration among disciplines, both within the CCRC and with scientists around the world. Completed in October 2003, this state-of-the-art facility contains 32 research laboratories; a 260-seat auditorium; a teaching laboratory; specialized rooms with NMR spectrometers (800-MHz and 900-MHz instruments) and mass spectrometers; plant and animal cell culture facilities; an animal holding facility; a computer center and specialized computer graphics facilities; a reading room; and rooms to house other widely used shared equipment.

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**Third Annual Georgia Glycoscience Symposium**

**Symposium Organizers:**
Dr. Geert-Jan Boons  
Dr. Kelley Moremen  
Dr. James Prestegard

**For more information, contact:**
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Illustrated above are twenty conformations of Glc3Man9GlcNAc2OH, superimposed on the chitobiose core, selected at 0.5ns time intervals from a fully solvated 10ns molecular dynamics (MD) simulation. The inside illustration is a single conformation (at 5ns) of Glc3Man9GlcNAc2OH showing its extent of motion (dot surface). Each model was generated by Dr. Robert Woods (UGA) using the GLYCAM06 force field with input from the GLYCAM-Web interface (www.glycam.com).
The Georgia Glycoscience Symposium

Invitation. The faculty of the Complex Carbohydrate Research Center invite you to attend the Third Annual Georgia Glycoscience Symposium to be held at our facility on the banks of the Oconee River. The symposium will be held in conjunction with the advisory committee meeting for the National Institutes of Health/National Center for Research Resources-funded Research Resource for Integrated Glycotechnology, also taking place at the CCRC.

Registration. A registration fee of $20.00 is payable on-site and will be waived for the first 25 registrants. To register, please follow the Third Annual Georgia Glycoscience Symposium registration link on the CCRC Web page (www.ccrc.uga.edu). Cash and check are accepted. Please make checks payable to “The University of Georgia.”

Posters. Posters highlighting research of the glycoscience community will be available throughout the day. Poster abstracts should be submitted for consideration by April 15 to Carolyn Tir at ctir@ccrc.uga.edu.

Directions and Parking. Directions to the CCRC can be viewed or downloaded at http://www.ccrc.uga.edu/location/locationframe.html. Free parking will be available on site. Non-university attendees should see the receptionist for a parking permit.

Accommodations. For those planning to stay a night or two, we suggest making reservations at the following locations as soon as possible:

- Holiday Inn and Holiday Inn Express- Athens
  www.hi-athens.com
  1-800-HOLIDAY

- The Foundry Park Inn
  www.foundryparkinn.com
  (706) 549-7020 or 1-866-9ATHENS

- Hilton Garden Inn - Athens
  www.stayhgi.com
  (706) 353-6800 or 1-877-STAY HGI

Please contact these establishments for room rates and reservations or visit www.visitathensga.com for additional options.

AGENDA

9:00 a.m. Coffee and Danish
9:30 a.m. Introductory Remarks
  Dr. J.H. Prestegard, Professor of Chemistry and Biochemistry, GRA/Varian Eminent Scholar in NMR Spectroscopy, Complex Carbohydrate Research Center, University of Georgia

9:45 a.m. Dr. Richard D. Cummings, Professor of Biochemistry and Molecular Biology, Emory University, “Molecular Tools for Glycomics: Arrays to Infinity and Beyond”

10:35 a.m. Break
10:55 a.m. Dr. Gerald W. Hart, Professor and Director, Department of Biological Chemistry, Johns Hopkins University, “Dynamic Cycling of O-GlcNAc on Regulatory Proteins: Roles in Diabetes, Neurodegenerative Disease and Cancer”

11:45 a.m. Dr. Lianchun Wang, Assistant Professor of Biochemistry and Molecular Biology, Complex Carbohydrate Research Center, University of Georgia, “The Role of Endothelial Heparan Sulfate in Vascular Development and Related Diseases”

12:15 p.m. Lunch / Posters

2:00 p.m. Dr. Heather Desaire, Assistant Professor of Chemistry, University of Kansas, “Glycosylation on HIV Vaccine Candidates”

2:30 p.m. Dr. Gideon Davies, Professor of Structural Biology and Biological Chemistry, University of York, United Kingdom, “An Overview of the Structural Enzymology of Glycosyltransferases”

3:20 p.m. Break
3:40 p.m. Dr. Jamey Marth, Professor of Cellular and Molecular Medicine, University of California, San Diego, School of Medicine, and Investigator, Howard Hughes Medical Institute, “Mammalian N-Glycosylation in the Pathogenesis and Prevention of Disease”

4:30 p.m. Reception / Posters

www.ccrc.uga.edu