

American Chemical Society
Division of Carbohydrate Chemistry



Newsletter

Fall 2011

Division website: <http://carb.sites.acs.org/>

ACS Carbohydrate Division Fall 2011 Newsletter

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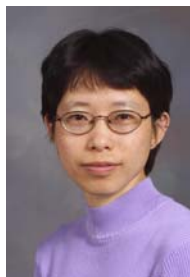
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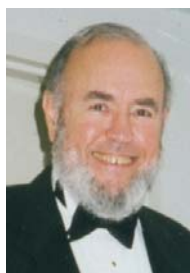
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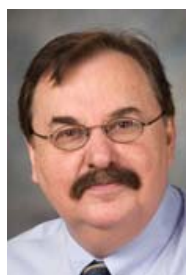
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New Membership Application

I wish to enroll as a member of the ACS Division of Carbohydrate Chemistry.
I am currently a member or National Affiliate in good standing with the ACS.

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Future Newsletters

The Carbohydrate Division Newsletter is published twice a year, just before the two annual National ACS meetings. If you have items for inclusion in future newsletters including meeting announcements, please send this information to: Xuefei Huang, Department of Chemistry, Michigan State University, East Lansing, MI 48824, USA, Phone: 517-355-9715, ext 329, Fax: 517-353-1793, Email: xuefei@chemistry.msu.edu.

Future Divisional Symposia

If you have ideas for future Carbohydrate Division symposium themes or would like to organize a Carbohydrate Division symposium in future ACS national meetings, please contact Xuefei Huang, Department of Chemistry, Michigan State University, East Lansing, MI 48824, USA, Phone: 517-355-9715, ext 329, Fax: 517-353-1793, Email: xuefei@chemistry.msu.edu. CARB division provides substantial financial support towards Carbohydrate Division symposia in ACS national meetings.

ACS Carbohydrate Division Fall 2011 Newsletter

ACS Fellow Announcement

Eight of the Carbohydrate division members have been elected 2011 ACS Fellow! The newly elected members are **Sandra J. Bonetti, Catherine E. Costello, Derek Horton, Robert S. Langer, Todd L. Lowary, John R. Vercellotti, Sharon V. Vercellotti, Zbigniew J. Witczak**. They join **Drs. Charles Buchanan, Alfred French, Jacquelyn Gervay-Hague** and **Laura Kiessling**, as the ACS Fellow from our division. Please join me in congratulating all the ACS Fellows.

We were not able to reach Dr. Bonetti before sending out this newsletter. Brief biographies of all the other new fellows are attached below.

Dr. Catherine E. Costello (Boston University)

Dr. Costello received her A.B. in Chemistry from Emmanuel College, and her M.S. and Ph.D. degrees in Organic Chemistry from Georgetown University. After postdoctoral training with Prof. Klaus Biemann, a mass spectrometry pioneer at the Massachusetts Institute of Technology, she served for 20 years as the Associate Director of the mass spectrometry resource at MIT. In 1994 she moved to Boston University School of Medicine, where she established the Center for Biomedical Mass Spectrometry, which includes the NIH-NCRR Resource Center and the NIH-NHLBI Cardiovascular Proteomics Center. Dr. Costello's research interests are in the determination of the structures and functions of biologically important polymers, with particular emphasis on glycans and glycoconjugates, post-translational modifications of proteins, cardiovascular disease and protein folding disorders. She is an author or coauthor of about 300 scientific papers. She has served as President of the American Society for Mass Spectrometry, and is currently President of the Human Proteome Organization (HUPO), Vice President of the International Mass Spectrometry Foundation, and a member of the ACS Council and of the board of US-HUPO. She serves on the editorial boards of several major journals, and is a member of numerous academic and institutional advisory committees. Recognitions Dr. Costello has received include the 2004 Henry A. Hill Award from the ACS Northeastern Section, the 2008 HUPO prize for Discoveries in Proteomics, the 2009 Thomson Medal from the International Mass Spectrometry Foundation and the 2010 ACS Field and Franklin Award. More information on Dr. Costello can be found at: <http://www.bumc.bu.edu/msr/staff-directory/catherine-e-costello-director/>.



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Dr. Derek Horton (American University)

Dr. Derek Horton was born in England. He received his B. Sc. and Ph. D. degrees from the University of Birmingham. After postdoctoral study with Prof. Melville L. Wolfrom at the Ohio State University, he started as an assistant professor in 1962 and was quickly promoted to associate professor then full professor at the Ohio State University. In 1992, he became the Isbell Professor at the American University, where he is currently a professor emeritus. Dr. Horton's research has been primarily concerned with the organic and biological chemistry of carbohydrates, both simple sugars and glycoconjugates, from the standpoints of structure, synthesis, and reactivity. He is the author of some 500 refereed original journal, reviews, and technical papers in esteemed chemistry publications as creative output from some 80 graduate students who achieved advanced degrees of Ph. D. and M.Sc. and many postdoctoral collaborators.

Among the many honors Dr. Horton has received, he is a recipient of 1972 C. S. Hudson Award; 1988 Melville L. Wolfrom Award; 1988 Alexander von Humboldt Senior Scientist Award, German Federal Republic; and 1990 Haworth Medal from the Royal Chemical Society. Dr. Horton is a long time member of the American Chemical Society and the Carbohydrate Division. He has served as member-at-large, alternate councilor, program chair, chair-elect and chair of the Carbohydrate Division. He is currently councilor of the division and member of the ACS General Committee on Nomenclature, Terminology, and Symbols. Dr. Horton was the founding editor of *Carbohydrate Research* for 44 years and he has been the editor of the *Advances in Carbohydrate Chemistry and Biochemistry* for the past 42 years. More information of Dr. Horton can be found at: <http://www.american.edu/cas/faculty/carbchm.cfm>.



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Dr. Robert S. Langer (Massachusetts Institute of Technology)

Dr. Robert S. Langer is an Institute Professor (there are 14 Institute Professors at MIT; being an Institute Professor is the highest honor that can be awarded to a faculty member). His main research areas are in the development of novel polymers for controlled release and tissue engineering. Dr. Langer has written approximately 1,120 articles and has nearly 800 issued or pending patents. Dr. Langer's patents have been licensed or sublicensed to over 220 pharmaceutical, chemical, biotechnology and medical device companies. He is the most cited engineer in history.



Dr. Langer has received over 200 major awards including the 2006 United States National Medal of Science; the Charles Stark Draper Prize, considered the equivalent of the Nobel Prize for engineers, the 2008 Millennium Prize, the world's largest technology prize and the 2012 Priestley Medal, the highest award of the American Chemical Society. He is also the only engineer to receive the Gairdner Foundation International Award; 72 recipients of this award have subsequently received a Nobel Prize. Among numerous other awards Langer has received are the Dickson Prize for Science (2002), Heinz Award for Technology, Economy and Employment (2003), the Harvey Prize (2003), the John Fritz Award (2003) (given previously to inventors such as Thomas Edison and Orville Wright), the General Motors Kettering Prize for Cancer Research (2004), the Dan David Prize in Materials Science (2005), the Albany Medical Center Prize in Medicine and Biomedical Research (2005), the largest prize in the U.S. for medical research, induction into the National Inventors Hall of Fame (2006), the Max Planck Research Award (2008) and the Prince of Asturias Award for Technical and Scientific Research (2008). In 1998, he received the Lemelson-MIT prize, the world's largest prize for invention for being "one of history's most prolific inventors in medicine." In 1989 Dr. Langer was elected to the Institute of Medicine of the National Academy of Sciences, and in 1992 he was elected to both the National Academy of Engineering and to the National Academy of Sciences. He is one of very few people ever elected to all three United States National Academies and the youngest in history (at age 43) to ever receive this distinction. More information on Dr. Langer can be found at: <http://web.mit.edu/langerlab/langer.html>.

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Dr. Todd L. Lowary (University of Alberta)

Dr. Todd L. Lowary received his B.A. in Chemistry from the University of Montana in 1988 and obtained his Ph.D. in Organic Chemistry under the supervision of Professor Ole Hindsgaul at the University of Alberta in 1993. He carried out postdoctoral research with Professor David R. Bundle at the University of Alberta (1993–1995), and then with Dr. Morten P. Meldal at the Carlsberg Laboratory in Copenhagen, Denmark (1995–1996). In 1996, he took a position in the Department of Chemistry at The Ohio State University as an Assistant Professor and in 2002 was promoted to Associate Professor with tenure. In 2003, he returned to the University of Alberta where he is a Professor in the Department of Chemistry and a member of the Alberta Inovates Centre for Carbohydrate Science, a group of eleven principal investigators at the University of Alberta and the University of Calgary who work in the areas of carbohydrate chemistry and glycobiology. His research interests are primarily focused on bacterial glycans, particularly those present in mycobacteria and campylobacter.

Dr. Lowary has served as secretary, program chair of the Carbohydrate Division and he is currently the Chair-Elect of the division. He has been the editor of *Carbohydrate Research* since 2004 and a member of the editorial board since 1997. Dr. Lowary is the winner of 2005 Horace S. Isbell Award from the Carbohydrate Division, *Carbohydrate Research Award* for Creativity in Carbohydrate Chemistry, and Fellow of the American Association for the Advancement of Science. More information about Dr. Lowary can be found at <http://www.chem.ualberta.ca/~lowary/Todd.html>.



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Dr. John R. Vercellotti (V-LABS, Inc.)

Dr. John R. Vercellotti received his B. A. degree from St. Bonaventure University in 1955 and obtained Ph. D. from the Ohio State University under the tutelage of Prof. Melville L. Wolfrom studying the structure of heparin. He was an assistant professor at Marquette University, Associate Professor at University of Tennessee and Professor of Biochemistry and Nutrition at Virginia Polytechnic Institute and State University. He also worked as a researcher in the Northern Regional Laboratory and the Southern Regional Research Center of USDA for more than a quarter of century. After retiring from USDA in 1995, he has been the vice-president and senior chemist of V-LABS.



Dr. John Vercellotti has been a member of the American Chemical Society since 1958. He is actively involved in the Carbohydrate division and has served multiple terms as secretary, executive secretary, and program chair. He is currently a councilor of the division, representing the division at the National ACS meeting. Dr. Vercellotti is the winner of the 1994 Melville L. Wolfrom Award of the Carbohydrate Division.

More information on Dr. Vercellotti and V-LABS can be found at http://www.v-labs.com/index.php?option=com_content&view=category&layout=blog&id=12&Itemid=32 and <http://www.v-labs.com/>.

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Ms. Sharon V. Vercellotti (V-LABS, Inc.)

Ms. Sharon V. Vercellotti founded V-LABS, INC., as a laboratory specializing in carbohydrates in 1979 with the vision of making available both products and services to researchers in biotechnology, biochemistry, and in the rapidly developing glycobiology with its potentially revolutionary approaches in solving biomedical problems. V-LABS provides biologically active cell surface recognition molecules that are much in demand in frontier research, and has made available carbohydrate enzymes for use in structural studies and analysis of key biomolecules. As president of V-LABS, Ms. Vercellotti has developed procedures for the synthesis and analysis of carbohydrates and the isolation and modification of polysaccharides.

Since her founding of V-LABS in 1979, Ms. Vercellotti has served continuously as a mentor to a number of high school and college students at her laboratory. She has helped the students with college applications and scholarship recommendations. She has also given numerous demonstrations to local students, both in the laboratory and at their schools. She has participated in judging many local, regional, and state science fairs and has advised local science teachers and students with diverse projects. Ms. Vercellotti was featured as one of twenty-five women in an ACS Symposium Series book, "Successful Women in Chemistry - Corporate America's Contribution to Science".



More information on Ms. Vercellotti and V-LABS can be found at http://www.v-labs.com/index.php?option=com_content&view=category&layout=blog&id=11&Itemid=31 and <http://www.v-labs.com/>.

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Dr. Zbigniew J. Witczak (Wilkes University)

Dr. Zbigniew J. Witczak obtained his Ph.D. from Medical University of Lodz, Faculty of Pharmacy, Lodz, Poland. After postdoctoral work with Roy L. Whistler at Purdue University he worked in industry (A. E. Staley) and joined in 1990 Faculty in School of Pharmacy at University of Connecticut. He moved to Wilkes University, Nesbitt School of Pharmacy in 2000 where he is a full professor. His research interests are in the area of thio sugars and carbohydrate synthons including Levoglucosenone and L-Arabinose as template for carbohydrate based therapeutics. He has published over ninety research papers, edited six books and holds six patents in the fields of carbohydrate medicinal and biological chemistry.

In 1997 Dr. Witczak was awarded John S. Burlew Award from the ACS Connecticut Valley Section. In 2000 he was awarded the Melville L. Wolfrom Award from the ACS Division of Carbohydrate Chemistry for his outstanding research contribution to carbohydrate chemistry and service to the division. He is the US Representative to the International Carbohydrate Organization.

More information on Dr. Witczak can be found at: <http://www.wilkes.edu/pages/969.asp?pidm=284313>.



Solicitation of Nominations for Division Awards

The Carbohydrate Division is soliciting nominations for the 2011 Melville L. Wolfrom Award, Horace S. Isbell Award and New Investigator Award, which will be awarded at the Spring 2012 National meeting in San Diego together with the 2011 Award Winners.

- *The Melville L. Wolfrom Award* acknowledges outstanding service to the Division and to the field of carbohydrate chemistry.
- *The Horace S. Isbell Award* acknowledges excellence in and promise of continued quality of contribution to research in carbohydrate chemistry. The winner must be under the age of 41 at the time of the award.
- *The New Investigator Award* acknowledges and encourages outstanding contributions to research in carbohydrate chemistry by scientists in their first independent faculty position.

Visit <http://carb.sites.acs.org/divisionawards.htm> for nomination forms.

NOTE: NOMINATION DEADLINE IS SEPTEMBER 15th, 2011

Congratulations to 2011 CARB Division Award Winners!

Khushi L. Matta (Rosewell Park Cancer Inst.)-**Melville L. Wolfrom Award**

Xuefei Huang (Michigan State Univ.)- **Horace S. Isbell Award**

Jeffrey C. Gildersleeve (National Cancer Inst.) - **New Investigator Award**

Award symposium honoring the awardees will be held in the Spring 2012 San Diego meeting.

Congratulations to **Prof. Benjamin G. Davis** (Univ. of Oxford) on winning the Tetrahedron Young Investigator Award!

For award announcement, see:

http://www.elsevier.com/wps/find/P04_116.cws_home/tet_awards!

Upcoming National ACS Meeting



243rd National Meeting

March 25th - March 29th, 2012, San Diego, California

CARB Division Symposia in the 243rd ACS National Meeting

2011 Wolfrom, Isbell and Young Investigator Award Symposium

2012 Wolfrom, Isbell and Young Investigator Award Symposium

Frontiers in Nucleic Acid Chemistry, Biology and Drug Discovery

Carbohydrate-Mediated Host-Pathogen Interactions and Their Interventions

Symposium in Memory of Dr. David Y. Gin

General Papers: Synthetic Chemistry

General Papers: Glycobiology

General Papers: Computation

General Papers: Polysaccharides

General Posters

Abstract submission will open on **Aug. 22nd, 2011**. Please go to abstracts.acs.org to submit your abstract.

Other Upcoming Meetings

7th Annual Midwest Carbohydrate and Glycobiology Symposium

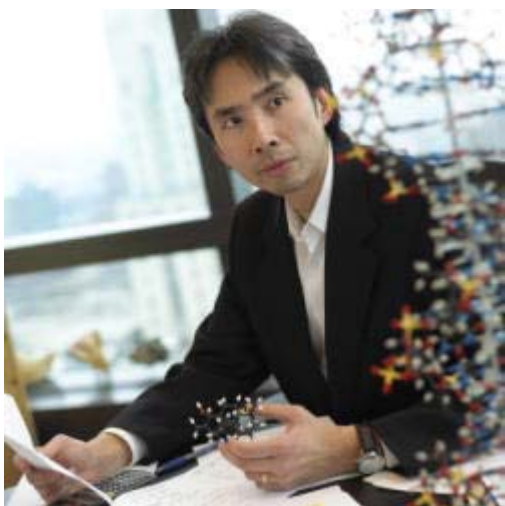
Sept. 16th – Sept. 17th, 2011 – East Lansing, Michigan

Visit <http://www2.chemistry.msu.edu/mura/MCGS/> for more information.

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With heavy hearts, we announce that we have lost three giants in our field, Profs. David Y. Gin, Saul Roseman, and Nathan Sharon. We extend our deepest sympathies to their families and friends. They will be greatly missed.

More information on Prof. Gin can be found at: <http://www.mskcc.org/mskcc/html/68900.cfm>. A symposium in memory of Prof. Gin will be held in the 243rd ACS National Meeting in San Diego, March 2012.

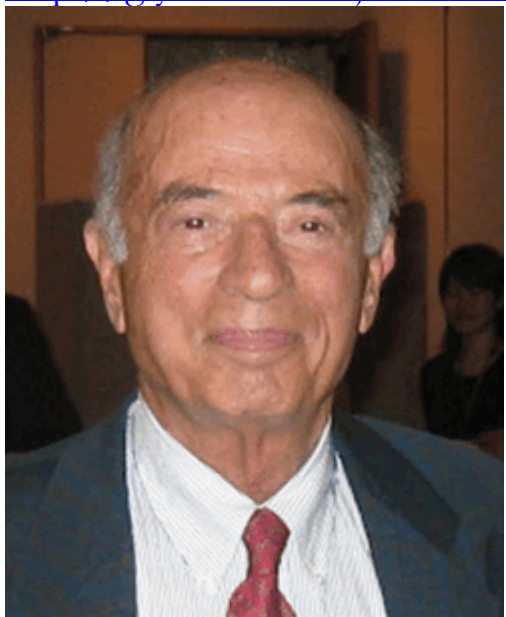


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More information on Prof. Roseman can be found at:
<http://gazette.jhu.edu/2011/07/18/biologist-saul-roseman-90-champion-of-serendipitous-discovery/>



More information on Prof. Sharon can be found at:
<http://glycob.oxfordjournals.org/content/21/9/1119.full>



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