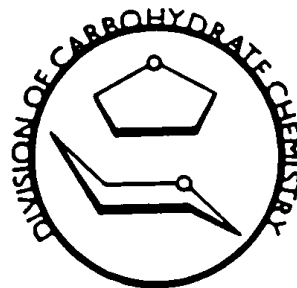


American Chemical Society
Division of Carbohydrate Chemistry

NEWSLETTER



Celebrating
75 Years
1924-1999

Summer 1999

Dr. Muthiah Manoharan
Secretary
ACS Carbohydrate Chemistry Division
Isis Pharmaceuticals Inc.
2292 Faraday Ave.
Carlsbad, CA 92008-7208 U.S.A.

**DIVISION OF CARBOHYDRATE CHEMISTRY
OFFICERS AND EXECUTIVE COMMITTEE FOR 1998-1999**

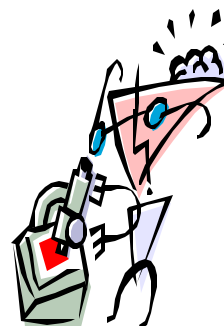
What's New?

<u>Office</u>	<u>Name</u>	<u>Phone, Fax, E-mail</u>
Chairman (1998-1999)	Manssur Yalpani	508-366-4089 myalpani@aol.com
Chairman-Elect and Program Chairman (1998-1999)	Fred Brewer	718-430-2227 718-430-8922 (fax) brewer@aecom.ya.edu
Past Chairman (1998-1999)	Alfred French	504-286-4410 504-286-4217 (fax) afrench@nola.srrc.usda.gov
Executive Secretary and Program Liaison (1998-2000)	Zbigniew J. Witczak	860-742-0700 860-486-4998 (fax) zwitczak@usa.net or zwitczak@uconnvm.uconn.edu
Secretary and Newsletter Editor (1998-2000)	Mano Manoharan	760-603-2381 760-929-0036 (fax) mmanoharan@isisph.com
Treasurer (1998-2002)	Gillian Eggleston	504-286-4446 gillian@nola.srrc.usda.gov
Councilor (1997-2000)	Vacant	
Councilor (1998-2001)	Derek Horton	202-885-1750 202-885-1752 (fax)
Alternate Councilor (1997-2000)	Arland Hotchkiss	215-233-6448 215-233-6559 (fa x)
Alternate Councilor (1998-2001)	David Baker	423-974-1066 423-974-1536 (fax)
Executive Committee (members-at-large)	(98-00) Kevin Rice	313-763-1032
	(98-00) Peter Norris	908-932-9611
	(97-99) Waldemar Priebe	713-792-3777. 713- 673-9072 (fax)
	(97-99) Jacquelyn Gervay	602-621-8843

International Carbohydrate Symposium Travel Grants

The U.S. Advisory Committee for International Carbohydrate Symposia will provide travel awards to U.S. graduate students and post-docs who will be presenting papers (oral or poster) at the 2000 ICS in Hamburg, Germany. Neither the amount of awards nor the application procedure has been established, but potential applicants should plan on supplying the submitted abstract, a CV, and a letter of nomination from their advisor or supervisor to the address below by 1 April 2000.

Professor. James N. BeMiller
Whistler Center for Carbohydrate Research
Department of Food Science
1160 Food Science Building
Purdue University
West Lafayette, IN 47907-1160
Tel. (765) 494-6171
Fax (765) 494-7953
(E-mail: bemiller@purdue.edu)



**YOUR HELP IS CRITICAL!
We need it!**

There has always been a small but very active group of individuals who have contributed to the programming of the Carbohydrate Division. If anyone has an idea for a symposium topic for future meetings, please contact any one of the officers listed in the front of this Newsletter.

1999 Newsletter Publication Deadlines

Fall 1999 October 1, 1999



ACS National Meeting, August 1999
PROGRAM FOR THE CARBOHYDRATE DIVISION
The Convention Center
New Orleans, LA, August 22-26, 1999

<u>Day/Date</u>	<u>Start Time</u>	<u>Symposium Title</u>
Sunday 8/22	AM	Carbohydrate Nomenclature
	PM	Wolfrom-Isbell Awards Symposium
Monday 8/23	AM	Carbohydrate Vaccines
	PM	Session I: Carbohydrate Vaccines
	PM	Session II: Contributed Papers
Tuesday 8/24	AM	Session I: Bioactivation of Nucleoside Analogs
	AM	Session II: Carbohydrate Vaccines & Biotechnology
	PM	Bioactivation of Nucleoside Analogs
Wednesday 8/25	AM	Carbohydrate-Based Ligands Targeting Nucleic Acids
	PM	Session I: Carbohydrate-Based Ligands Targeting Nucleic Acids
	PM	Session II: Contributed papers
Thursday 8/26	AM	Nucleosides & Oligonucleotides: Contributed Papers
	PM	Contributed Papers

You may find more information at the following ACS website:

<http://www.asc.org/cgi-bin/ACS/personalScheduler.exe>

OR

www.acs.org/meetings/neworleans

**ACS National Meeting, August 1999
M. L. Wolfrom and H. S. Isbell Awards Banquet
Honoring Dr. William Doane and Dr. Jacquelyn Gervay-Hague
Tuesday, August 24, 1999, 6:30 p.m.**

**Cannon's Restaurant
4141 St. Charles Avenue (corner of Milan)
New Orleans, LA
Phone: 504-891-3200**

The M. L. Wolfrom and H. S. Isbell awards will be presented to Dr. William Doane and Dr. Jacquelyn Gervay-Hague at the National ACS Meeting in New Orleans. There will be a special symposium on Sunday afternoon highlighting work by the award winners, as well as the traditional banquet Tuesday evening.

DIRECTIONS FROM THE CONVENTION CENTER:

The banquet will be at Cannon's Restaurant in the "Uptown" part of New Orleans, with the social hour starting at 6:30 p.m., and dinner starting promptly at 7:30 p.m. The recommended transportation is the GREEN streetcar (not the red one on the riverfront) that visits Canal Street for only one block before heading uptown along St. Charles Avenue. The fare is \$1 and the operator cannot make change. The line is on Julia Street which is an eight-block walk from the Convention Center. It will take about 30 minutes to reach the restaurant from Canal Street and St. Charles. Two main courses have been selected. Chicken Florentine (herb-marinated chicken breast topped with cream of spinach and artichoke sauce with baked potato) and Pasta Garaud (fresh pasta with shrimp and crawfish in their own spicy garlic cream sauce). An appetizer medley will consist of popcorn shrimp, eggplant sticks and spinach and artichoke dip, and dessert will be turtle cheesecake. A Caesar salad will be served.

It will be very much appreciated by both the Division and by the restaurant if you could notify Dr. A. French soon of your menu choice (chicken or pasta) or if you have any special dietary requirements not met by our choices. This restaurant needs to know what we need in advance.

This should be a popular event and seating is finite; so get your reservation in soon. The ticket price is only \$35. Send your reservation by e-mail or fax or phone today, and pay for your ticket at your convenience. Of course there's the usual way, when you register in advance or on site, or purchase the ticket from Dr. French.

Alfred D. French
Southern Regional Research Center
1100 Robert E. Lee Blvd.
New Orleans, LA 70124
1-(504)-286-4410 (work); 1-(504)-286-4217 (fax); 1-(504)-837-8479 (home)
1-(504)-361-7190 (pager); E-mail: afrench@nola.srrc.usda.gov



**NEW MEMBERSHIP APPLICATION
For
The ACS Division of Carbohydrate Chemistry**

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.

Name (Dr., Mr., Mrs., Miss, Ms.) _____

Affiliation _____
(University, Institute, Company)

Street Address _____

City _____ State _____ Zip code _____

Country (if not USA) _____

Business Telephone _____ Fax _____

E-mail address: _____

ACS Membership Number _____

(found on your ACS membership card or from the mailing label on your C&E News)

You may also apply for membership On-Line at:
<http://www.ucc.uconn.edu/~wiczak/carbmem1.html>

Membership is free of charge for the first year; \$7.00 per year thereafter

Mail to: Dr. Muthiah Manoharan
Isis Pharmaceuticals
2292 Faraday Avenue
Carlsbad, CA 92008-7208

E-mail: mmanoharan@isisph.com
(760) 603-2381
Fax (760) 929-0036

Phone



**DIVISION OF CARBOHYDRATE CHEMISTRY, ACS
FUTURE PROGRAMS**

Dear Members of the Division of Carbohydrate Chemistry:

It is time again to update our Members Directory! The Division produced the last printed version in 1996. Since then, our Division has grown through the years to approximately 1,250 members as of 1 May of 1999.

We are planning to launch the millennium issue of our Members Directory 2000 within the year. We thus need your help to verify your contact information. Please send us your new addresses, phone and fax numbers, as well as your e-mail address and web page addresses, if available.

Through your prompt cooperation we hope to complete the Members Directory 2000 by the end of the year in order to present your new member directory at one of the two ACS meetings in 2000.

You can submit your new data online. You can access the Division's home page and enter your information on the New Member Application Form at:

<http://www.ucc.uconn.edu/~witezak/carbmem1.html>

You can alternatively submit your information through my web page by clicking on the contact form at:

www.ucc.uconn.edu/~witezak/

Lastly, you can e-mail your information directly to me at:

witezak@uconnvm.uconn.edu

All three methods are fast and convenient.

I would greatly appreciate your prompt action in order to efficiently serve all members of the world's carbohydrate community. This is your division, so take care of our future.

Sincerely yours,

Zbigniew J. Witezak,
Executive Secretary,
Division of Carbohydrate Chemistry

Program Chair: Z. J. Witezak, Department of Pharmaceutical Sciences, School of Pharmacy, University of Connecticut, 372 Fairfield Rd., U-92, Storrs, CT, 06269, Phone (860) 742-0700, fax (860) 486-4998, e-mail: witezak@uconnvm.uconn.edu and /or ZWitezak@usa.net

SAN FRANCISCO, March 26-30, 2000

The Online Abstract Submittal System (OASys) is now available for instant paper submission at www.acs.org/meetings. If you do not have web access, please send one original hard copy abstract form to the individual listed. Deadlines: electronic submittals by **October 12, 1999**; hardcopy submittals by **October 1, 1999**.

Glycobiology. C. Fred Brewer, Albert Einstein College of Molecular Pharmacology, Bronx, NY 10461-1988, (718) 430-2227, e-mail: brewer@acom.yu.edu

Enzyme Glycobiology. S. G. Withers, Department of Chemistry, 2036 Main Mall, University of British Columbia, Vancouver, Canada, V6T 1Z1, (614) 822-3402, fax (614)-822-2847, e-mail: witers@chem.ubc.ca

Carbohydrate Therapeutics, V. Sasak, Safe Science, Inc, 31 St. James Avenue, Suite 520, Boston, MA 02116, (617) 422-0674, fax (617)-422-0675, e-mail; vsa-sak@safesci.com

Oligonucleotide Therapeutics. P. Dan Cook and Muthiah Manoharan, Isis Pharmaceuticals Inc, 2292 Faraday Ave., Carlsbad, CA 92008-7208, (760) 603-2357, e-mail: dcook@isisph.com

Carbohydrate Synthons in Natural Product Synthesis. Z. J. Witezak, Department of Pharmaceutical Sciences, School of Pharmacy, University of Connecticut, 372 Fairfield Rd., U-92, Storrs, CT, 06269, (860) 742-0700, fax (860) 486-4998, e-mail: witezak@uconnvm.uconn.edu and /or ZWitezak@usa.net; Kuniaki Tatsuta, Graduate School of Science and Engineering, Waseda University, Shinjuku, Tokyo 169, Japan, e-mail: tatsuta@mn.waseda.ac.jp

Contributed Papers, Z.J. Witezak, Department of Pharmaceutical Sciences, School of Pharmacy, University of Connecticut, 372 Fairfield Rd., U-92, Storrs, CT, 06269, (860) 742-0700, fax (860) 486-4998, e-mail: witezak@uconnvm.uconn.edu and/or ZWitezak@usa.net

DIVISION OF CARBOHYDRATE CHEMISTRY, ACS FUTURE PROGRAMS

WASHINGTON, D.C., August 20-24, 2000

The Online Abstract Submittal System (OASys) is now available for instant paper submission at www.acs.org/meetings. If you do not have web access, please send one original hard copy abstract form to the individual listed. Deadlines: electronic submittals by May 12, 1999; hardcopy submittals by May 1, 1999.

Biochemistry of Polysaccharides. J. F. Robyt, Department of Biochemistry, Iowa State University, 4252 Molecular Biology Building, Ames, IA 50011-0061, (515) 294-1964, e-mail: jrobyt@iastate.edu

Glycosylphosphatidylinositol Anchors. P. Konradsson, Department of Chemistry, University of Stockholm, Sweden, e-mail: pk@admin.organ.su.se

Contributed Papers, Z.J. Witczak, Department of Pharmaceutical Sciences, School of Pharmacy, University of Connecticut, 372 Fairfield Rd., U-92, Storrs, CT, 06269, (860) 742-0700, fax (860) 486-4998, e-mail: witczak@uconnvm.uconn.edu and/or ZWitczak@usa.net

CALL FOR PAPERS- ACS MEETING, MARCH 2000

Dear Division Members:

As you are aware, the Division moved into the information age and accepted abstracts online for the first time for the upcoming New Orleans meeting, thinking it would be easier for both the presenters and the Division. Two weeks before the deadline, the Division had only 14 abstracts. Only when an e-mail indicating the problem went out to the Executive Committee, and the deadline was extended by two weeks did we begin receiving the bulk of the abstracts. Despite the extension, many of the abstracts were still submitted after the extended deadline.

For next Spring's meeting in San Francisco we will also accept abstracts submitted online, as well as hard copies. The deadline for hard copy submissions (only on the ACS template) will be earlier than the deadline for abstracts submitted online. Submission deadlines are given in the "Call for Papers" memo, and they will be strictly enforced. We will be unable to accept any abstract submitted after the deadline. Please understand, this is a Division policy in order to retain our good relationship with the ACS Meeting office.

Many thanks for the understanding and future cooperation.

Respectfully Yours,

Zbigniew J. Witczak,
Executive Secretary & Program Liaison

Dr. Prestegard received his B.S. in Chemistry in 1966 from the University of Minnesota and his Ph.D. in chemistry from the California Institute of Technology in 1971. Prior to joining the Complex Carbohydrate Research Center of the University of Georgia in January 1998, where he holds titles of Professor and Eminent Scholar, Dr. Prestegard spent 27 years in the Chemistry Department of Yale University. In addition to his normal professorial duties at Georgia, he directs the regional NMR facilities. His research group is developing and applying nuclear magnetic resonance (NMR) methods for the study of the structure and function of biologically important macromolecular assemblies including carbohydrates and carbohydrate binding proteins.

C. Allen Bush, Professor of Chemistry and Biochemistry, University of Maryland

Dr. Bush received his Doctorate in Chemistry from the University of California, Berkeley, and was a Professor of Chemistry at Illinois Institute of Technology, Chicago. Since 1989, he has been a Professor of Chemistry and Biochemistry at the University of Maryland Baltimore County. At the University of Maryland his research interest is in the structure and conformation of complex oligosaccharides and polysaccharides using NMR spectroscopy and computer modeling. He currently serves as the Associate Editor of Biopolymers and on the Editorial boards of Carbohydrate Research and Glycobiology.

Juan Navia, Manager, Research & Development, McNeil Specialty Products

Dr. Navia earned his B.S. degree in Biology from Tulane University and his Doctorate from the University of Birmingham, Alabama, followed by a postdoctoral position at the University of Birmingham, Alabama where he studied Glycosaminoglycan Biochemistry. He then carried out further postdoctoral research at the University of Wisconsin, Madison in the area of synthesis of oligosaccharides and glycopeptides. In 1992 he joined McNeil Specialty Products. His research interests are sucrose chemistry and development of high potency sugar substitutes. He has developed a novel high potency sweetener called "sucrolose."

P. Dan Cook, Vice President, Chemistry, Isis Pharmaceuticals

Dr. Cook received his Doctorate in Organic Chemistry, under the direction of Raymond N. Castle (University of New Mexico). He completed postdoctoral fellowship with Roland K. Robins at ICN Pharmaceutical in Costa Mesa, California in 1970-72, spent 11 years as a medicinal chemist at Warner-Lambert/Parke-Davis Pharmaceutical Research Division in Ann Arbor, Michigan, and one year at Eastman Kodak Research Laboratories in Rochester, New York, before moving to Malvern, Pennsylvania, with the Eastman Pharmaceutical Division/Sterling Research Group. In 1989, he joined Isis Pharmaceuticals in Carlsbad, California as Director of Medicinal Chemistry. At Isis his research interests are in the areas of heterocycles, nucleosides, nucleotides, and oligonucleotides as they relate to medicinal applications. He served as the Chairman of the Division of Carbohydrate Chemistry, ACS during the period 1997-1998.

BIOGRAPHICAL SKETCHES OF THE CANDIDATES

(Please refer to the ballot)

Waldemar Priebe, Associate Professor of Medicinal Chemistry, University of Texas, M. D. Anderson Cancer Center, and University of Texas Graduate School for Biomedical Sciences

Dr. Priebe's research involves design, synthesis, and biological evaluation of carbohydrate-based anticancer agents. His current research include the study of the sugar moiety in anthracycline antibiotics on multidrug resistance and molecular interaction with drug transporters (P-gp and MRP). His studies have led to the development of a new drug Annamycin, which is being evaluated in Phase II clinical studies against breast cancer and leukemia. He is also working in the design of carbohydrate-based DNA interactive agents that control gene expression at the transcriptional level and agents that are base-specific alkylators of DNA. Dr. Priebe is an author or co-author of 86 peer-reviewed papers, 1 book, 5 book chapters, 147 published abstracts, and 19 pending and granted patents. Dr. Priebe played an active role in the functions of the Division of Carbohydrate Chemistry, serving on both its program and executive committees. Since 1993, he has organized 6 international symposia sponsored by the Carbohydrate Division that covered various aspects of carbohydrate and carbohydrate-containing drug chemistry.

John Robyt, Professor of Biochemistry and Director of the Laboratory of Carbohydrate Chemistry and Enzymology, Iowa State University

Professor Robyt has research interests in the enzymatic mechanisms of polysaccharide biosynthesis and hydrolysis; the chemical and enzymatic modifications of carbohydrates, including maltodextrins, cyclomaltodextrins, isomaltodextrins, sucrose, sugar alcohols, and polysaccharides, such as starch, dextran, and algin. He is also interested in the development of analytical methods for the qualitative and quantitative determination of carbohydrates. He has published over 150 research and review papers on these subjects and 2 books. He has been a member of the American Chemical Society for 40 years and a member of the Division of Carbohydrate Chemistry for 35 years.

David A. Brant, Professor of Chemistry, University of California, Irvine

At the University of California, Irvine Professor David A. Brant's research involves studies of the relationships between chemical structure, conformation, and the physical and biological properties of polysaccharides, using scattering, spectroscopic, and rheological methods, scanning probe microscopy, and molecular modeling techniques. He has served two terms as a member of the Executive Committee of the Carbohydrate Division and is on the Editorial Advisory Boards of Carbohydrate Research, Journal of Carbohydrate Chemistry, International Journal of Biological Macromolecules, and Biopolymers. Recently he served as Chair of the Organizing Committee for the 19th International Carbohydrate Symposium held in San Diego in August, 1998.

James H. Prestegard, Professor of Chemistry, University of Georgia at Athens



ACS DIVISION OF CARBOHYDRATE CHEMISTRY BALLOT FOR THE 1999 ELECTION



At least one candidate has been nominated for each office. Please cut this page, mark your ballots and return them in the provided envelope at your earliest convenience, and no later than **August 10, 1999** to:

Mano Manoharan, Isis Pharmaceuticals

You may also write in a candidate for any office. If you do so, be sure he or she is a member of the ACS and the Division of Carbohydrate Chemistry, and remember to place a mark in the box next to the candidate's name as well. You should not put your name or address in the envelope containing the ballot. However, please be sure to mark it with your ACS membership number (see your membership card or C&E News mailing label).

Chair Elect: (one year term; vote for one)
Professor Waldemar Priebe

- Professor John Robyt
- _____

Councilor: (three year term; vote for one)
Professor David A. Brant

- Professor James H. Prestegard
- _____
- _____

Executive Committee: (two year term; vote for two)
Professor C. Allen Bush

- Dr. Juan Navia
- _____

Wolfrom-Isbell Awards Committee: (three year term; vote for one)
Dr. P. Dan Cook

- _____
- _____

DEADLINE FOR RECEIPT OF BALLOTS IS AUGUST 10, 1999.