



# The TarHelium

Volume 32, Number 1

November, 2001



## STATE OF THE SECTION

- National Chemistry Week Activities
- 2002 Officer Election
- New Section ACS Members
- ChemLuminary Awards Report
- Industries of the Future Program
- Call for Nominations for NC Distinguished Lecturer Award

## North Carolina Section Accepts ChemLuminary Award

The North Carolina Section's Younger Chemist Committee (YCC) received an honor again this year at the ChemLuminary Awards celebration in Chicago. This gala event was hosted on Monday evening September 24 at the Fall ACS National meeting and served to recognize more than 52 different activities made by ACS members and affiliate groups.

Last year, the North Carolina Section YCC committee received the distinction of receiving an award for the best new YCC committee. This year, they were recognized for hosting the most Outstanding Local Section YCC Event for their major participation in the North Carolina State Fair Cyberspace Exhibit! Over 45 YCC volunteers presented demonstrations and served as guides for this 10 day event. The attraction drew more than 168,000 visitors to the exhibit and was widely acclaimed as one of the favorites of the show!

This year they are again providing much of the staffing necessary for our exhibit in BioFrontiers at the North Carolina State Fair.

The YCC committee, led by Darrell Coleman of Sphinx Pharmaceuticals, also presented a poster before the gala celebration highlighting the many activities performed during the past year.



*Accepting the award for the committee was Dwayne Coleman of Sphinx Pharmaceuticals, shown receiving the award from ACS President-Elect Eli M. Pierce.*

It should be noted that the section also sent Dr. Camille Solbrig to the National Meeting for the nomination of the section's National Chemistry Week (NCW) performance. This category is particularly competitive and results in winning of a Phoenix Award. The section is working hard this year to win this year for our NCW programs which support the Chemistry and Art theme!

*By James L. Chao, IBM Corporation, NC ACS Councilor*

## INSIDE THIS ISSUE

National Historic Chemical Landmark in RTP	2
Call for 2002 NC Distinguished Lecturer Award	2
New ACS Members	3
Ballot for Local Section Elections	3
Meet the Candidates	4
National Chemistry Week Activities	6
Review of the Play "Oxygen"	7
Advertisers	8
NC-ACS Discussion Group Reports	9
Travel Awards - Call for Applications	10
Employment Aids from the Local Section	11

## National Historic Chemical Landmark in RTP

The Natural Products Laboratory of Research Triangle Institute has been nominated as a National Historic Chemical Landmark for the discovery of Camptothecin and Taxol for the treatment of cancer.



Dr. Mansukh Wani (left) and Dr. Monroe Wall discovered these compounds while working at the Research Triangle Institute.

### TAXOL

1966	Isolated at RTI from the Pacific Yew Tree ( <i>Taxus brevifolia</i> ).
1971	Complex structure of the compound determined at RTI.
1979	Found to kill cancer cells in a unique way.
1983	Clinical trials initiated by National Cancer Institute (NCI).
1991	Called the most important advance in chemotherapy in 15 years by the NCI.
1992	Approved for treatment of ovarian cancer
Now	Used widely to treat breast and ovarian cancers.
More	than doubles chance of survival.

### CAMPOTHOTECIN

1966	Isolated and structure determined at RTI from the Chinese "Tree of Joy" ( <i>Camptotheca acuminata</i> ).
1970	First report of clinical use of a structural analog of camptothecin.
1974	Clinical trials stopped due to high toxicity of this analog.
1985	Camptothecin found to kill cancer cells in a unique way.
Late 1980s - Early 1990s	New analogs are developed and tested in the clinic
1996	Two analogs are approved for the use in treating ovarian and colon cancers.

## The Industries of the Future Program

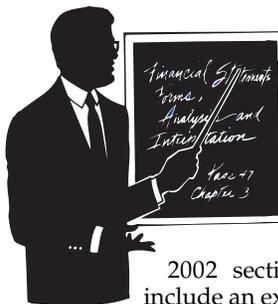
The Industries of The Future (IOF) program is an industry driven alliance among Industry, Academia and Non-regulatory Government Agencies. This program is sponsored through the Office of Industrial Technology (OIT) at the Department of Defense. The IOF program is intended to encourage industry to develop and adopt new energy efficient technology applications for processes that consume the greatest energy and generate the most environmental impact. This

program targets the basic industrial sectors that not only have the highest energy use but face the most significant barriers to new technology adoption. The IOF provides financial and technical assistance to those industry and research participants willing to commit their own financial resources and commit to the ultimate deployment of resulting beneficial technology. To assure full industry championship of this program, it is driven by visions and technology roadmaps that have been created by and continuously refined by leaders of each of the nine industrial sectors involved.

For the State of North Carolina, The Chemical and Allied Industries have been targeted to encourage these industries to participate in the IOF program. Four targeted areas have been identified by industry leaders as those that need immediate attention to make them globally competitive. These are: New Chemical Science and Engineering Technology, Supply Chain Management, Information Systems and Manufacturing Operations. Intellectual Property Rights are protected and specific understanding negotiated before cooperative research agreement signed. There are numerous benefits of the IOF program both to the State and the Industry. Some of these benefits include resource leveraging wherein the OIT provides the leverage funding for collaborative work. In addition, the IOF program will provide the means to better equip the Chemical and Allied Industries in the State of North Carolina to meet the competitive challenges in the global market place. For more information, you can visit the website [www.oit.doe.gov](http://www.oit.doe.gov) or contact Dr. H. Singh at [singh@ncat.edu](mailto:singh@ncat.edu)

## Call for Nominations: 2002 North Carolina Distinguished Lecturer

Nominations are invited for the North Carolina Distinguished Lectureship for 2002. The award, sponsored by the ACS North Carolina Section, honors distinguished contributions to the chemical sciences made within the territory of the North Carolina Section. ACS members residing in the territory, as well as those who conducted outstanding work while residing in the area, are eligible. The recipient will receive an honorarium of \$1000 and will be the featured speaker at the April 2002 section meeting. Nominations should include an explanation of the nominee's eligibility for the lectureship, a curriculum vitae of no more than two pages, and a list of the nominee's most important publications. Two seconding letters will be accepted. Send nominations by January 15, 2002 to:



George H. Wahl Jr., Department of Chemistry  
North Carolina State University, Box 8204 Raleigh, NC  
27695-8204  
Fax (919) 515-2545  
Email: [george\\_wahl@ncsu.edu](mailto:george_wahl@ncsu.edu)

# WELCOME

Please welcome our newest ACS members !!

Ali M. Alaouie  
 Robert A. Alfieri  
 Jeffrey William Anthis  
 Gilda Rae Aumiller  
 Christopher Badorrek  
 Jeffrey A. Barnes  
 Jonathan Y. Bass  
 Martin Best  
 Elizabeth D. Blue  
 Evan Edward Bolton  
 Amy M. Bonser  
 Jason D Brewer  
 Todd A. Bullions  
 Paul A. Carlson  
 Ying Chen  
 Ye Chen  
 Stuart Cooper  
 Sarah L. Cowan  
 Pamela Kay Dominick  
 Owen R. Evans  
 James E. Fossett  
 Michael R. Goldsmith  
 Xiaoqing Han  
 Morton Harfenist  
 Nancy C. Hawkins  
 Rebecca M. Heltsley  
 Nick Hutson  
 Tom Jennings  
 Alan K. Johnson  
 Subba R. Katamreddy  
 Brian G. Keefer  
 Andrew C. Kolbert  
 Jianling Li  
 Jia Liu  
 Weijun Liu  
 E. C. Mabe  
 Mark R. Mc Keever  
 Kermit T. Mcelroy  
 S. Mihindukulasuriya  
 Christopher P. Mussari  
 Srinivasan Narasimhan  
 Claudiu Neagu  
 Scott M. Oloff  
 Gregory Peckham  
 Rajeev Prabhakar  
 Kathryn E. Preuss  
 John Eric Reissner  
 Jonathan P. Scoggins  
 Sergey Sheyko

Cynthia S. Shugar  
 Christopher J. Siemer  
 Geoffrey D. Smith  
 Ravi Ratan Sobti  
 Courtney Stephenson  
 David P. Stitzel  
 Graham Swift  
 Chad Talton  
 Ashley Tang  
 Gonglu Tian  
 Kelly Tincher  
 Katherine L. Touw  
 Jennifer Townes  
 Ryan P. Trump  
 Tanette Brown Villines  
 Neil J. Vogeley  
 Xingwu Wang  
 Graham M. West  
 Kevin A. Wilkinson  
 Bingyan Wu  
 Ningning Xu  
 Taofang Zeng  
 Yanchen Zhang



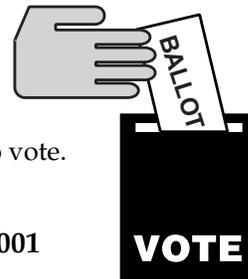
With each mailing of the TarHelium, there are always some returned to the section (at a fee) due to an incorrect or obsolete address. To make sure you receive your local section information on time, notify the ACS with any address changes. Log onto

<http://center.acs.org/applications/addrupdate/addrchange.cfm>

to update your records on-line.

## Ballot

The biographies of the candidates may be found beginning on the following page. Only ACS members are eligible to vote.



**Voting Deadline:**  
**Postmarked by November 22, 2001**

Place your ballot in a plain, sealed envelope and place the sealed envelope in a second envelope. The outer envelope **must be signed and your name printed** so that the Nominating Committee can verify your membership. Mail the ballot to:

Suzanne T. Purrington, Nominations Chair  
 Chemistry - 8204  
 North Carolina State University  
 Raleigh, NC 27695-8204

### 2001 BALLOT

**Chair-Elect:** (vote for one):

- John Myers
- \_\_\_\_\_

**Secretary:** (vote for one):

- Sol Levine
- \_\_\_\_\_

**Councilor:** (vote for two):

- Eric Bigham
- Bob Morrison
- \_\_\_\_\_

**Alternate Councilor:** (vote for two):

- Bill Switzer
- Dick Forbis
- Shawn Sendlinger
- \_\_\_\_\_

# Meet the Candidates

## CHAIR-ELECT

### *John Myers*

**J**ohn A. Myers became a member of ACS in 1965 after earning his BS and BA degrees in chemistry and mathematics, respectively, from Carson-Newman College. He earned the Ph.D. degree in organic chemistry from the University of Florida and did postdoctoral work with Prof. Harold Hart at Michigan State University. He joined the faculty of North Carolina Central University (NCCU) in 1971, was promoted to Professor in 1980, and has directed the research theses of eighteen M.S. students. From 1991 to 1997, Dr. Myers served as Chair of the Department of Chemistry at NCCU. In 1996, he served as co-organizer of the Sixth National Conference of the Council on Undergraduate Research, which was hosted by NCCU. For the 1998 SERM-ACS meeting in RTP, Dr. Myers organized two symposia on issues in chemical education. He has served on the Executive Committee of the North Carolina Consortium for Undergraduate Research since its inception, and he organized the first two SOARS Fall Conferences on Undergraduate Research. For several years, he has directed N.C. high school students in a course titled "Research in Chemistry" as part of the NCCU Summer Ventures in Science and Mathematics Program, which is funded by the State of North Carolina. Dr. Myers' research interests include the synthesis of isoindolequinones as potential radiation sensitizers or for insertion into molecular triads for artificial photosynthesis, the synthesis of pyrrolizine diesters as precursors to antileukemic agents, and the isolation of pharmacologically active components from natural materials.

## SECRETARY

### *Sol Levine*

Sol Levine is a lecturer and laboratory supervisor at NCSU and presently serves as the secretary for NC section of the ACS. Prior to his assignment at NCSU, he taught chemistry at Durham Technical Community College and spent many years at IBM from which he has retired.

Sol has been active in the local section helping with National Chemistry Week, the State Fair and served as the registration chairman of the recent SERM meeting hosted by our section. Prior to moving to Raleigh, ACS activities included serving as program chairman, treasurer and other posts in two different sections in New York State. In addition to the work and ACS related activities, he maintains a part time business in nature and wildlife photography.

## COUNCILOR

### *Eric Bigham*

**E**ric Bigham became a member of ACS in 1970 after earning his B. S. degree from North Carolina State University in 1969. He subsequently earned his M.A. in 1971 and his Ph.D. in 1975 from Princeton University.

Dr. Bigham graduated Magna Cum Laude. He received the Marcus Hobbs Service Award, North Carolina Section, ACS in 1991 and was a Phi Lambda Upsilon Lecturer, North Carolina State University in 1986. He was also a member of Sigma Xi and Phi Kappa Phi. Dr. Bigham has served as Principal Scientist at Glaxo Smith Kline since 1995 and prior to that position he served as Section Head of Burroughs Wellcome Company.

*Service in ACS National Offices:* Council Policy Committee (Nonvoting), 1998-00, Subcommittee on Industrial Members, 1998-00, Chair, 2000; Committee on Membership Affairs, 1995-00, Chair, 1998-00, Committee Associate, 1993-94; Advisory Board for Industry Relations, 1998-00; Board of Trustees, Group Insurance, 1998-00 (ex-officio); Task Force on Committee Size, 2000; Task Force on Member Recruitment, 1997; Editorial Advisory Board, Chemistry, 1998-01.

*Service in ACS Offices:* Member ACS since 1970. North Carolina Section: Councilor, 1992-01; Alternate Councilor, 1988-92; Chair and Program Chair, 1986; Chair-Elect, 1985; Treasurer, 1981-84; Executive Committee, 1981-00; Awards Committee, 1988-90; Academic-Industry Interface Committee, 1987-88; Nominations Committee, 1987; Hospitality Committee, 1982-86; Budget Committee, 1981-86. SERM84 Organizing Committee, 1982-84.

*Member:* Sigma Xi. ACS Divisions: Organic Chemistry, Medicinal Chemistry.

*Related Activities:* NCSU Chemistry Department Board of Visitors, 1997-01, Chair, 1999-01;

### *Bob Morrison*

**R**obert W. Morrison, Jr. has spent 37 years with chemistry in the Triangle area after receiving his Ph.D. in organic chemistry from Princeton University. He retired in 1995 after five years with Chemstrand Research Center, Inc. (Monsanto) and 26 years with Burroughs Wellcome Company where he was Vice President of Bioanalytical Sciences and Director of the Division of Organic Chemistry. Since his retirement,

(continued on page 5)

# Meet the Candidates

**Bob Morrison** (continued from page 4)

he has served North Carolina State University in the capacities of Executive Officer for the Department of Chemistry, Acting Associate Dean for Research for the College of Physical and Mathematical Sciences, and Executive Officer for the Department of Marine, Earth, and Atmospheric Sciences. He helped form and served as the first Chair for the Board of Visitors for the Department of Chemistry at NC State University and has served the NC Section of the ACS as Chair (1993), Councilor (1996-present), and member of the Steering Committees for the 1998 and upcoming 2004 Southeast Regional ACS Meetings in Research Triangle Park. He currently serves on the ACS NC Section Executive Committee and the ACS National Council as an active participant on the Membership Affairs Committee.

## ALTERNATE COUNCILOR

### **Bill Switzer**

**D**r. William L. Switzer is Associate Professor of Chemistry at North Carolina State University. He first became active in the Local Section shortly after moving to the area in 1973. He has served on the Hospitality Committee, Continuing Education Committee, and Marcus E. Hobbs Awards Committee. Both in the late 1970's and in the early 1990's, he was editor of the TarHelium. He was chair of the Section in 1987 and had previously served as Secretary. He was Publicity and Printing Chair for the 1984 Southeastern Regional ACS Meeting and General Chair of the 1998 Southeastern Regional Meeting. He has worked extensively with the Local Section at the Cyberspace Exhibit in 1996, 1997 and again in 2000 and is planning to do the same in 2001 at the BioFrontiers Exhibit. In 1989, he received the Marcus E. Hobbs award for service to the Local Section and in 1992, he received the Chair's Award for service. He currently holds the office of Alternate Councilor.

### **Dick Forbis**

**D**r. Richard M. (Dick) Forbis has been a member of the professional staff in the Department of Chemistry at the University of North Carolina at Chapel Hill since 1993, where he is presently Director of Laboratories and Technical Facilities. After completing his B.S. degree in chemistry at the University of North Carolina, he received his Ph.D. degree in organic chemistry from the University of Illinois at Champaign-Urbana in 1970, and spent the next 23 years in various

R&D and management positions related to the agrichemical, pharmaceutical, and medical diagnostic businesses of DuPont in Wilmington, DE.

Dr. Forbis is a member of the NC section of the ACS, and serves as faculty advisor for the local chapter of Alpha Chi Sigma. He has served on the organizing committee for the local section ACS meeting at UNC in 1999.

### **Shawn Sendlinger**

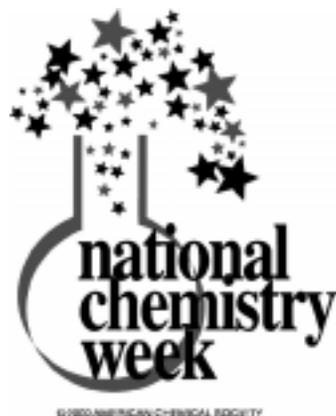
**D**r. Sendlinger obtained his Ph.D. in Inorganic Chemistry from Cornell University in 1990. He then accepted a postdoctoral position in the Department of Chemistry at Indiana University - Bloomington where he worked with Prof. George Christou. After spending one semester as a Lecturer at Indiana, he accepted an assistant professor job at North Carolina Central University in 1992. He was promoted to Associate Professor in 1998. Dr. Sendlinger has served as a Visiting Lecturer at the University of Otago in Dunedin, New Zealand, has been active as a Project SEED mentor for the Local ACS Section, and has been as ACS member since 1985. Educational interests include use of technology in data acquisition and analysis, and computational chemistry. His research interests include establishing new synthetic routes to transition metal/bromide compounds and the synthesis of transition metal/main group oligomers and polymers.



## 2002 OFFICERS

(not up for election)

Chair:	Susan Sumner
Treasurer:	Joan Bursey (through 2002)
Councilor:	Al Crumbliss (through 2003) Richard Palmer (through 2003) Jim Chao (through 2002)
Alternate Councilor:	Suzy Purrington (through 2003) Ed Samulski (through 2003) Walda Powell (through 2002)



## National Chemistry Week

November 4 - 10, 2001

*The North Carolina Section  
of the  
American Chemical Society*

### Celebrating Chemistry and Art

[www.acs.org/NCW](http://www.acs.org/NCW)

#### Sunday, November 4

*Museum of Natural Sciences, Raleigh*  
1:00 - 4:00 p.m. - Chemistry Day

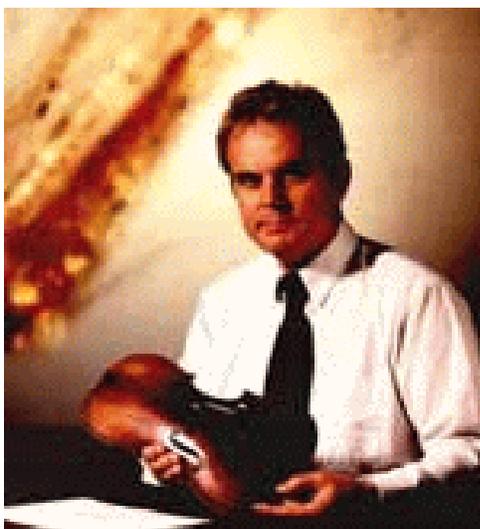
- Hands-on Activities
- Chemical Demonstrations
- Poster Contest

#### Thursday, November 8

*Fletcher Opera Theater, BTI Center, Raleigh*

5:00 - 6:30 p.m. Violinmaking: Is It Art or Is It Science?\*

Joseph Nagyvary, Texas A & M University,  
Zina Schiff, violinist



*Dr. Joseph Nagyvary-at the interface of arts and sciences. In the background, projection of a micrograph of Stradivari's varnish.*

#### *Joseph Nagyvary with Zina Schiff*

<http://www.nagyvary-violins.com/>,

A perusal of 200 years of reductionistic research of the violin reveals very little of practical significance for the violinmaker. A thorough scientific study of the violin is difficult to conduct because of the very large number of variables and outcomes. For this reason, a holistic approach based on intuition may be more expedient if the goal is to reach the excellence of a Stradivarius violin. Nagyvary's intuition as a biochemist led him to the assumption that the uniqueness of the Cremona violins is defined mainly by their chemical compositions and material microstructure, which are responsible for the brilliance of the sound. He can now reproduce this unique feature of all Cremona violins by applying the proper chemicals to new violins. In his interpretation of past experiences, the creation of a great violin requires the collaboration of a scientist and an artist/craftsman.

#### Thursday, November 8 (continued)

6:30 - 8:00 p.m. Buffet dinner on the plaza at the Fletcher Opera Theater\*

(\$24 per person. Tickets must be purchased in advance.)

8:00 p.m. *Oxygen*: A play by Carl Djerassi and Roald Hoffmann\*

Performed by the San Diego Repertory Theatre

Introduction and Post-Performance Discussion -  
Roald Hoffmann, Cornell University

#### Saturday, November 10

*Museum of Life and Science, Durham*  
1:00 - 4:00 p.m. - Chemistry Day

- Hands-on Activities
- Chemical Demonstrations
- Poster Contest

**Saturday, November 10**

Fletcher Opera Theater, BTI Center, Raleigh  
3:00 p.m. *Oxygen*: A play by Carl Djerassi and  
Roald Hoffmann\*

Performed by the San Diego Repertory Theatre  
Introduction and Post-Performance Discussion  
Roald Hoffmann, Cornell University

8:00 p.m. *Oxygen*: A play by Carl Djerassi and  
Roald Hoffmann\*

Performed by the San Diego Repertory Theatre  
Introduction and Post-Performance Discussion -  
Roald Hoffmann, Cornell University

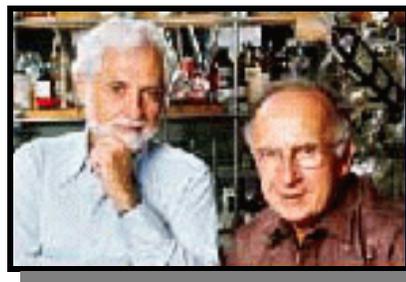
**OXYGEN**

Combine the talents of two renowned chemists with a passion for writing and theater and the result is *Oxygen*, a two-act play by Carl Djerassi and Roald Hoffmann. Directed by Brian Bevell and performed by the San Diego Repertory Theatre, *Oxygen* will be presented as a fully staged professional production at Raleigh's new Fletcher Opera Theater. Hoffmann, the recipient of Sigma Xi's 2001 John P. McGovern Prize, is also a Nobel laureate in chemistry and the Frank H.T. Rhodes Professor in Humane Letters at Cornell University. Djerassi is a professor of chemistry at Stanford University, best known as developer of the oral contraceptive pill, and both scientists have published a range of other literary works. *Oxygen* evolved from discussions between Hoffmann and Djerassi about a historical coincidence: In 1774, Joseph Priestley was a guest in Antoine Lavoisier's home, and the English minister described how he had made oxygen. At approximately the same time, Lavoisier received news of a similar discovery from Carl Wilhelm Scheele. While Priestley and Scheele remained unclear about what exactly they had discovered, Lavoisier was able to stake a claim to the discovery of the gaseous element responsible for the combustion of air. Hoffmann and Djerassi take the facts to develop a fictional encounter between the three claimants, bringing all three men and their wives together, at the invitation of King Gustav III, to Stockholm in 1777.



*Antoine Laurent de Lavoisier and his Wife, 1788. Lavoisier was the father of the chemical revolution. His wife was an artist who studied with David, painter of the above portrait. She also illustrated Lavoisier's laboratory notes and translated English scientific papers. Portrait by: David, Jacques-Louis (picture available at [www.archive.com](http://www.archive.com))*

The rest of the play shifts between the 18th-century characters, their process of science, politics and ambitions, and the Nobel committee's 21<sup>st</sup> century sensibilities as they argue about which of these men should be awarded the first "retro" Nobel Prize for chemistry. Plays of scientific ideas are rare, however, the successful productions of Tom Stoppard's "Arcadia" and Michael Frayn's "Copenhagen," have engaged non-scientists and scientists in debates about the social implications of science. "Science is inherently dramatic ..." say Hoffmann and Djerassi, "... because it deals with the new and unexpected ... can "science-in-theatre" also fulfill an effective pedagogic function on the stage or are pedagogy and drama antithetical?" Roald Hoffmann will introduce each performance of the play in Raleigh and lead a discussion about its broader implications.



*THE PLAYWRIGHTS Djerassi (left) and Hoffmann used e-mail to write most of "Oxygen."*

\*These events are co-sponsored with SIGMA XI as part of their 2001 Forum Program. A special web site has been set up for ACS members purchase tickets for *Oxygen*, the buffet dinner Thursday evening, and registration for the Sigma Xi Forum program. Go to

<https://secure-member.sigmaxi.org/Forum/2001Forum/ACSForm.html>

Additional presentations and activities that may be of interest to ACS members are being presented by SIGMA XI as part of their 2001 National Meeting and Forum Program:

### *Science, the Arts and the Humanities: Connections and Collisions*

Forum registration is required for admission to most of these events (but not for the student poster symposium on Saturday). To register for the Forum, go to the URL listed above. For a look at the Forum program, go to

<http://www.sigmaxi.org/forum/2001Forum/DetailedProgram.htm>.

For more information on National Chemistry Week 2001, contact:

Romita Sen at (919) 460-8230 or  
E-mail: [romitas@bellsouth.net](mailto:romitas@bellsouth.net)

# Advertisements

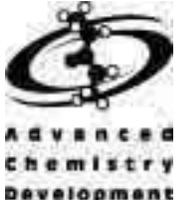


Integrated Software Solutions...

## Easier Done than Said

Do you find yourself juggling data, methods, references and hypotheses? Spectroscopic tools from Advanced Chemistry Development integrate three main areas: spectral processing, databases, and prediction. ACD processing software allows you to associate chemical structures with spectra. ACD/SpecManager allows you to create databases for NMR, MS, UV-Vis, and IR data searchable by chemical structure, substructure, and other parameters. ACD/NMR Predictors predict  $^{31}\text{P}$ ,  $^{19}\text{F}$ ,  $^{13}\text{C}$ , and  $^1\text{H}$  spectra and allow you to increase prediction accuracy by using your own experimental data. Look-up databases of assigned  $^1\text{H}$  and  $^{13}\text{C}$  spectra contain over 100,000 chemical structures each.

Chromatographic tools from Advanced Chemistry Development are also adept at juggling processing, databases and prediction. ACD/ChromManager processes experimental data, and includes the ability to assign chemical structures as well as a sophisticated deconvolution routine. Write your chromatograms to a fully searchable database. Or, transfer your data to our prediction engine for method optimization in ACD/LC Simulator. Chemical structure knowledge can be integrated with experimental data, thereby cutting method development time considerably, and it's all easier done than said.



90 Adelaide St. W. Suite 702  
Toronto, ON M5H 3V9 Canada  
Tel: (416) 368-3435  
Fax: (416) 368-5596  
Toll Free: 1-800-304-3988  
info@acdlabs.com  
www.acdlabs.com

## 500MHz NMR Facility

**Per Sample or Complex Problems**

- 500 MHz Varian UnityINOVA
- Automated Sample Analysis
- Flow NMR and LC-NMR
- Regulatory compliance  $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{19}\text{F}$ ,  $^{31}\text{P}$

Structural Chemistry Division  
Magellan Laboratories Incorporated

Phone: 919-465-8197  
info@magellanlabs.com



www.magellanlabs.com

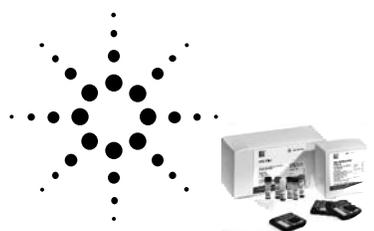


NOVOCONTROL, the world leader in Broadband Dielectric Spectroscopy, offers advanced turnkey instrumentation for dielectric and impedance spectroscopy with precise temperature control.

With our instruments we cover a broad frequency range from 3  $\mu\text{Hz}$  to 1.8 GHz and a temperature range from  $-160^\circ\text{C}$  to  $+500^\circ\text{C}$ .

For more information please contact:

NOVOCONTROL America, Inc.  
Dr. Joachim Vinson  
phone: 1-877-639-9323 (toll free)  
fax: 1-919-639-7523  
e-mail: vinson@ntwrks.com  
http://www.novocontrol.com



For all your analysis needs . . .  
Agilent Technologies has a solution!

- Capillary Electrophoresis
- Sample Preparation
- Gas Chromatography
- GC/MS
- Columns & Supplies
- Data Systems
- Biochemical Analysis
- Liquid Chromatography
- LC/MS & LC/MS/MS
- UV-Vis Spectroscopy
- User Training
- Instrument Repair
- ICP/MS

For more information call 1-800-227-9770, or visit our web site at [www.agilent.com/chem](http://www.agilent.com/chem)



## NC-ACS Discussion Groups



### NC-ACS Discussion Groups

Triangle Area Mass Spectrometry Discussion Group (TAMSDG)  
 Polymer Discussion Group (PDG)  
 Triangle Chromatography Discussion Group (TCDG)  
 Triangle Magnetic Resonance Discussion Group (TMRDG)  
 Younger Chemists Committee (YCC)  
 Chemical Education/High School Chemistry Teachers Discussion Group (ChemEd)

### ACS Polymer Discussion Group

<http://membership.acs.org/N/NCarolina/pdg/>

All scientists, engineers, and students working in polymer-related fields are welcome to participate in the ACS Polymer Discussion Group. Please attend any or all of the meetings on the schedule below to meet other local polymer scientists in industry and academia. Monthly meetings include dinner, a seminar by an invited speaker, and discussion. Meetings are held at the University Club of NC State University on the second Thursday of each month. Social hour begins at 5:30 pm, with dinner at 6:30, and the seminar at 7:30.

**November 8, 2001** - *"Applications of Fluorescence Photobleaching Recovery"*

Professor Paul Russo  
 Department of Chemistry  
 Louisiana State University

**December 13, 2001** - *"Polyurethanes in Biomedical Applications"*

Professor Stuart Cooper  
 Department of Chemical Engineering  
 NC State University

**January 10, 2002** - *"Arborescent Graft Polymers Characterized by SANS"*

Professor Robert Briber  
 Department of Materials Science  
 University of Maryland

For more information, to make dinner reservations, or to be added to the email list, contact Keith Dawes (515-7010) or email: [Keith\\_Dawes@ncsu.edu](mailto:Keith_Dawes@ncsu.edu)

### Triangle Area Mass Spectrometry Discussion Group

<http://membership.acs.org/N/NCarolina/tamsdg/tams1.htm>

The Triangle Area Mass Spectrometry Discussion Group (TAMS) was created to provide an opportunity for scientists involved in mass spectrometry to get together and share ideas and experiences. The group typically holds six meetings per year, which include a social time, refreshments, general announcements, and a seminar by an invited speaker. Previous invited speakers have been from the areas of pharmaceutical, biotechnology, environmental, theoretical, and forensic sciences. The group also holds an annual poster and vendor night in the fall, where members are encouraged to present exciting aspects of their work and our sponsors are given the opportunity to show their latest products.

All correspondence is through the TAMS e-mail distribution list and the TAMS website. The website lists upcoming events, highlights from last year's poster and vendor night, and a job posting section. Membership in the group is free and anyone can join by sending an e-mail to Daniel Morgan at [dm19700@gsk.com](mailto:dm19700@gsk.com).

### Triangle Chromatography Discussion Group

<http://RTPnet.org/~tcdg>

The purpose of the TCDG is to maintain and promote an interest in and to provide an opportunity for discussion and exchange of information with respect to all fields of chromatography. The membership is open to anyone interested in the field of chromatography. The TCDG sponsors a number of speakers throughout the year and an annual Triangle Symposium and Instrument Exhibit. This coming year will be the 19<sup>th</sup> symposium and will be held in May 2002.

Steven M. Collier of Waters Corporation will present a lunchtime seminar entitled "Stability-Indicating HPLC Method Development - A Systematic Approach using pH and Column Selectivity" on Tuesday, November 6, 2001 at the Dreyfus Auditorium on the campus of the Research Triangle Institute.

For more information regarding this discussion group please visit the website <http://rtpnet.org/~tcdg>.

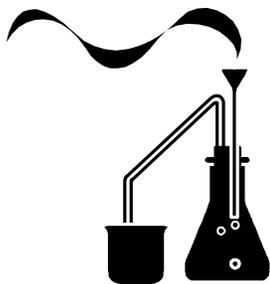
### Chemical Education/High School Teachers Discussion Group (ChemEd)

<http://membership.acs.org/N/NCarolina/chemed>

The ChemEd discussion group has been formed to disseminate information relevant to chemistry/science education. It is the hope that this discussion group will involve educators at all levels of chemical education. High school chemistry teachers are currently organizing the group, but we hope that everyone interested in chemical education will use this discussion group as a method to communicate ideas.

If you are interested in becoming involved in this discussion group please contact Dr. Myra Halpin at the NC School of Science and Math ([halpin@ncssm.edu](mailto:halpin@ncssm.edu)).

The group has a listserv as a means to communicate with interested individuals. To sign up for the listserv send an email to [listserv@listserv.ncsu.edu](mailto:listserv@listserv.ncsu.edu) with a message saying: subscribe nchemed <your name>. Problems subscribing can be addressed to [sturgeon@ncssm.edu](mailto:sturgeon@ncssm.edu)



### Younger Chemist Committee (YCC)

<http://membership.acs.org/N/NCarolina/ycc>

The YCC was developed to encourage greater participation in the ACS in the Local Section by its younger members. The YCC's primary goal is to make the ACS more accessible and relevant to the younger chemist. The programs are designed to provide informative lectures and discussions relevant to YCC members.

Last year, the North Carolina Section YCC committee received the distinction of receiving an award for the best new YCC committee. This year, they were recognized for hosting the most Outstanding Local Section YCC Event for their major participation in the North Carolina State Fair Cyberspace Exhibit! Over 45 YCC volunteers presented demonstrations and served as guides for this 10 day event. The attraction drew more than 168,000 visitors to the exhibit and was widely acclaimed as one of the favorites of the show!

Meetings are planned for once a quarter and we will be involved with National Chemistry Week and the NC State Fair as well as other projects that promote Chemistry in the Section.

Current officers are:

President: Darrell Coleman ([dscoleman@lilly.com](mailto:dscoleman@lilly.com))  
 Vice President: Lisa Milstein ([lmilstein@rti.org](mailto:lmilstein@rti.org))  
 Secretary: Kath Sturgeon ([sturjek@basf-corp.com](mailto:sturjek@basf-corp.com))  
 Treasurer: Matt Clapham ([mclapham@nc.rr.com](mailto:mclapham@nc.rr.com))

More information about the YCC can be found on the NC-ACS website.

### Call for Applications for Travel Awards

Women Chemists Committee of the American Chemical

Society is Pleased to Call for Nominations for The WCC Regional Award for Contributions to Diversity



Purpose: To recognize individuals who have significantly stimulated or fostered diversity in the chemical enterprises. The award consists of \$250, a plaque, and up to \$750 for travel expenses to the ACS Regional Meeting at which the award will be presented. Eight regional awards will be given in 2002.

Establishment and Support: The ACS Women Chemists Committee

Rules of Eligibility: Nominees for the award may come from any professional setting: academia, industry, government, or other independent facility. The award is intended to recognize significant accomplishments by an individual. The award will be given without regard to the age, gender or nationality of the recipient.

Send nominations to:  
 Women Chemists Committee  
 American Chemical Society  
 1155 16th Street NW  
 Washington, DC 20036

For information regarding the award, contact

Cheryl Brown, 800/227-5558 ext. 6123, or  
 e-mail: [wcc@acs.org](mailto:wcc@acs.org)

Deadline for receipt of nominations is February 1, 2002



## JOB VACANCIES

### Employment Aids from the Local Section

As many of you are aware, the NC Section has a web page: <http://membership.acs.org/N/NCarolina/>. This page and the links therein are intended to be a resource for chemists in the Section. There are several links of interest particularly to those seeking employment. One link has a list of companies in the Section who hire ACS members; and another links to classified ads in the local paper and to a job search service for the area as well as to several other less targeted sources. Also there are links directly to company job opening web pages where we have been able to find them and links to some of the services offered on ACS web pages.

An additional resource for the most up-to-date job postings is the NCACS listserver. This listserver is operated as a public service of the NC Section and NC State University. There is no charge to anyone. It is operated as a moderated list, which means that only the list owner can approve posted material. This prevents the list from becoming overwhelmed with inappropriate messages. Only valid job openings and meeting announcements are approved. To subscribe, address mail to: [listserv@listserv.ncsu.edu](mailto:listserv@listserv.ncsu.edu). Include a 1-line message saying: *subscribe ncacs <your name>*

The subject line is ignored and your return address is taken as the subscription address. Anyone having a valid job opening can contact Bill Switzer at: [bill\\_switzer@ncsu.edu](mailto:bill_switzer@ncsu.edu). To unsubscribe, reply to any posted message requesting that your name be removed.

Also contact Bill at the same address if you have suggestions for other links that might serve as useful resources on the web page or if you would be interested in taking responsibility for maintaining one or more pages.

North Carolina State Bureau of Investigation  
<http://webs.jus.state.nc.us/doj/hr/>

Magellan Laboratory  
<http://excellentadventure.magellanlabs.com/>

News and Observer  
<http://www.trianglejobs.com/>

Research Triangle Foundation links to jobs in RTP including the following  
(<http://www.rtp.org/local/jobs/home.html>)

Aventis

BASF

Bayer Biological Products

BD Technologies

Biogen

Chemical Industry Institute of Toxicology

Covance Biotechnology Services Inc.

Eisai Inc.

Eli Lilly

Glaxo SmithKline Inc.  
International Business Machines Corporation (IBM)  
Lineberry Research Associates  
Lockheed Martin Technical Services, Inc.  
MCNC  
National Institute of Environmental Health Sciences  
North Carolina Biotechnology Center  
Paradigm Genetics  
Research Triangle Institute  
Underwriters Laboratories Inc.  
U.S. Environmental Protection Agency

These links can all be accessed through the NC-ACS web site found at:

<http://membership.acs.org/N/NCarolina/jobs.html>

If you would like your company's employment link added to this list please

send an email to [sturgeon@ncssm.edu](mailto:sturgeon@ncssm.edu)

# The TarHelium Volume 32: Number 1

Bradley E. Sturgeon, Editor  
North Carolina School of Science and Mathematics  
P. O. Box 2418, Durham, NC 27715

PRST STD  
US POSTAGE  
PAID  
RALEIGH, NC  
PERMIT #1854

## Editorial Staff:

Editor: Bradley E. Sturgeon  
Copy Editor: Judith M. Price  
Address Information: Sol Levine  
Printing/Mailing: Custom Mail Solutions

**Dated Material - Please Deliver Promptly**

## Executive Committee:

C. M. Balik (NCSU), Chair, '01	515-2126	balik@ncsu.edu
S. C. J. Sumner (CIIT), Chair-Elect '01	558-1343	sumner@ciit.org
S. Levine (NCSU), Secretary '00-'01	513-2585	slevine@pams.ncsu.edu
J. T. Bursey (ERG), Treasurer '01-'02	468-7926	jbursej@erg.com
B. E. Sturgeon (NCSSM), TarHelium Editor '00-present	286-3366	sturgeon@ncssm.edu
A. L. Crumbliss (Duke), Councilor '01-'03	660-1540	alc@chem.duke.edu
R. A. Palmer (Duke), Councilor '01-'03	660-1539	rap@chem.duke.edu
J. L. Chao (IBM), Councilor '00-'02	543-3054	jlchao@us.ibm.com
E. C. Bigham (GSK), Councilor '99-'01	483-9844	ecb12781@gsk.com
R. W. Morrison, Jr. (NCSU), Councilor '99-'01	515-2549	robert_morrison@ncsu.edu
S. T. Purrington (NCSU), Alt. Councilor, '01-'03	515-2864	purringt@chemdept.chem.ncsu.edu
E. T. Samulski (UNC), Alt. Councilor, '01-'03	962-1562	et@unc.edu
W. Powell (Meredith), Alt. Councilor '00-'02	760-8619	powellw@meredith.edu
J. D. Martin (NCSU), Alt. Councilor '99-'01	515-3402	jdmartin@chemdept.chem.ncsu.edu
W. L. Switzer (NCSU), Alt. Councilor '99-'01	515-2945	bill_switzer@ncsu.edu
G. H. Wahl, Jr. (NCSU), Past Chair '99	515-2941	george_wahl@ncsu.edu
R. J. Linderman (Pharmacia) Past Chair '98	(847) 982-8153	Russell.J.Linderman@monsanto.com
M. M. Bursey (UNC), Ex Officio	493-3025	mbursey@acs.org
K. A. Cutler (NCCU), Project Seed Ex Officio	530-7004	kcutter@wpo.nccu.edu
E. L. Eliel (UNC), Ex Officio	962-6198	eliel@email.unc.edu
T. A. Lehman (UNC-CH), Ex Officio	966-0581	talehman@intrex.net
D. G. Morgan (GSK), TAMS, Ex Officio	483-4291	dm19700@gsk.com
D. Canelas (Lord), PDG, Ex Officio	469-2500	dorian.canelas@lord.com
S. Cooper (RTI), TCDG, Ex Officio	541-6595	sdcooper@rti.org
T. M. O'Connell (GSK), TMRDG, Ex Officio	483-1535	tmo89509@gsk.com

---

## The TarHelium

The TarHelium is a publication of the North Carolina Section of the American Chemical Society. The views expressed herein are not necessarily those of the Section. Public lectures and seminars as well as announcements of interest to the ACS membership will be listed as deemed appropriate by the editor and as space permits. Short commentaries or contributed articles will also be considered. Also, we are happy to publicize, free of charge, any job openings for chemists. We also accept paid advertisements for more extensive recruiting announcements. The Deadline for each publication is usually the first of the month prior to publication.

## NC Section Electronic Communications

The NC Section of the ACS offers two services which may be of interest to members: 1) a listserv and 2) a web page: <http://membership.acs.org/N/NCarolina/>.

The listserv is used for ACS meeting announcements and for job announcements. Unlike some lists, the number of postings is quite limited--usually no more than 3 or 4 a month. This list is moderated, which means that all messages must be approved by the list owner before they are posted. If you have a valid opening within the NC Section, please mail an appropriate announcement to bill\_switzer@ncsu.edu. Very occasionally openings outside of the NC Section are posted. If you wish to subscribe, address mail to: listserv@listserv.ncsu.edu. The subject field is ignored, but in the message field type: subscribe ncacs first\_name last\_name. Your name is required; spaces are allowed. Your return address becomes your subscription address. These instructions as well as those for removing your name are linked to the web page.

If you have not looked at the web page recently, please do so. The Executive Committee is committed to making this page a useful resource. It is constantly being updated to include new information. Please feel free to suggest additional links and PLEASE offer to take responsibility for maintaining one or more of the local links. Contact: bill\_switzer@ncsu.edu.

---