



The TarHelium

Volume 23, Number 6

February 1993

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The TarHelium
c/o William L. Switzer, Editor
Department of Chemistry-8204
North Carolina State University
Raleigh NC 27695-8204

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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.

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Please direct all correspondence and submissions to the attention of the editor:

The TarHelium
c/o W. L. Switzer, Editor
Department of Chemistry-8204
North Carolina State University
Raleigh NC 27695-8204

Internet:
bill_switzer@ncsu.edu
(919) 515-2945
(919) 515-5079 (FAX)

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P.O. Box 3337
Columbus, OH 43210

If you wish to receive announcements of Local Section ACS events by electronic mail, please submit your e-mail address to the Internet address given above for the Editor.

Deadline
March Publication
Friday, February 12, 1993

Publication Policy

The *TarHelium* will be published eight times a year but the format may change to suit the material that must be published. 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 end of the first week of the month prior to publication, but may be earlier if monthly meetings are scheduled earlier.

INDOFINE Chemical Company Inc. **new camera ready copy**

(908) 534-6522
Vigi Bezwada

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- Feb 25 G. Schatz, Northwestern University, "Close Encounters between Molecules: Understanding How Chemical Reactions Take Place", 4:00 p.m., UNC-CH
- Feb 26 J. Osteryoung, North Carolina State University, "Analytical and Mechanistic Applications of Pulse Voltammetry", Duke
- Feb 27 Magnetic Resonance Spectroscopy Group Poster Session, **MRSDG** 9:30 a. m. at CIIT
- Feb 27 G. Pielak, University of North Carolina, Chapel Hill, "Effect of Redox Change on Amide Proton Exchange in Variants of Cytochrome C", **MRSDG** 11:30 a. m. at CIIT

ACS-American Chemical Society monthly meeting

Polymer-ACS Polymer Discussion Group

MRSDG-ACS Magnetic Resonance Discussion Group

Duke (Chemistry) seminars at 3:30 p.m. Call Bonnie Turner at 660-1506 for information.

NCSU (Chemistry) seminars at 3:30 p.m. Call Joyce Weatherspoon at 515-2548 for information.

NCSU-BC (Biochemistry) seminars at 4:00 p.m. Call Pat Sullivan 515-2581 for information.

UNC-CH (Chemistry) seminars as noted. Call Becky Smith at 962-2172 for information.

BW (Burroughs Wellcome) seminars as noted.

Polymer Group Meeting

Thursday, February 11, 1993

North Carolina State University Faculty Club
Hillsborough Street at I440 (Raleigh Beltline)

Dr. Kenneth J. Wynne

Chemistry Division, Office of Naval Research

"Surface Properties of Polydimethylsiloxane Segmented and Block Copolymers"

Abstract: An investigation has begun of polyurethanes and polyureas containing unusual diols which promote the formation of minimally adhesive surfaces, that are thus unattractive to settling marine organisms. Toward this end, copolymers were prepared of an aminopropyl end-capped dimethylsiloxane oligomer and isophorone diisocyanate with 1,4-benzenedimethanol as the chain extender. Contact angle measurements were used to calculate surface energies indistinguishable from pure PDMS. Angle resolved XPS data give insight into the effects of compositional changes caused by increased chain extender. The surface concentration of PDMS is higher than the bulk at an 18 Å sampling depth with bulk concentration being observed by about 100 Å. These and related results on a nylon-PDMS system are correlated with calculations of root-mean-square end-to-end distances of the PDMS segment. Preliminary observations concerning adhesion of marine organisms to these materials will be presented.

Biography: Kenneth J. Wynne earned his Ph. D. from the University of Massachusetts in 1965, and carried out postdoctoral research at the University of California, Berkeley, 1965-1967. He is Program Manager, Organic and Polymeric Materials at the Office of Naval Research, Arlington VA. His research interests include electronically conducting polymers, preceramic polymers and polymer surface design and characterization. He is active in the Polymer Division of the American Chemical Society. He is a member of the Editorial Advisory Boards of the *Journal of Applied Polymer Science*, the *Journal of Inorganic and Organometallic Polymers*, and *Polymers for Advanced Technologies*.

5:30 p. m. Social Hour

6:30 p. m. Dinner[†] (members-guests: \$15; students \$8)

7:30 p. m. Lecture

[†]Reservations by noon, Tuesday, February 9, with Walter Pawlowski (919) 543-2243 (IBM-RTP).

Magnetic Resonance Spectroscopy Group

CALL FOR ABSTRACTS
Spring Poster Session and Lecture
9:30 a. m. - 4:00 p. m., February 27, 1993
Girolami Building, Glaxo, Five Moore Drive
Research Triangle Park, NC

Proposed Schedule:

9:30 a. m. Poster setup (Coffee and Doughnuts will be served)
 10:00 a. m. Poster Session
 11:30 a. m. Lecture

Dr. Gary Pielak
University of North Carolina, Chapel Hill

"Effect of Redox Change on Amide Proton Exchange in Variants of Cytochrome C"

12:30 a. m. Free Catered Lunch
 1:15 p. m. Poster Session Continues
 4:00 p. m. Adjourn

Please complete the attached registration and abstract submission form (see centerfold) and mail or FAX by February 17 to:

Dr. Susan Sumner
 CIIT, 6 Davis Dr.
 Research Triangle Park, NC 27709

(919) 541- 2070 (phone)
 (919) 541- 9015 (FAX)

Note: You need not register for a MRS member to attend but you must register to obtain a free lunch ticket. **Registration Deadline: February 17**

MRSDG Dues and New Members

Dues for the Magnetic Resonance Spectroscopy Discussion Group are required by April 1st to continue your membership in the Local ACS NMR discussion group. If you are a new member or address information is incorrect, please complete the attached form with your dues payment (checks only!!).

Regular membership: \$10.00
 Student membership: \$2.00

If you know of members who have relocated outside of central NC, please note their names on the attached form. (See centerfold)

February Calendar

- Feb 2 S. Hanessian, University of Montreal, "Designing Reagents for Asymmetric Processes", Duke
- Feb 3 H. W. Hellinga, Duke, "Design of Metalloproteins: Theory and Experiment", noon, UNC-CH
- Feb 4 M. P. Doyle, Trinity University, "Highly Enantioselective syntheses with Dirhodium (II) Catalysts", BW
- Feb 5 J. Petersen, Clemson University, "Design of Multimetal Systems for Use in Photoinduced Charge Separation and Energy Migration Processes", Duke
- Feb 8 G. Newkome, University of South Florida, "Synthesis and Chemistry of Unimolecular Micelles", NCSU
- Feb 9 A. I. Meyers, Colorado State University, "Asymmetric Approaches to Alkaloids", Burroughs Wellcome Lecture I, 4:00 p. m., UNC-CH
- Feb 10 A. I. Meyers, Colorado State University, "Additions of Carbanions to Aromatic Systems: Chiral Biaryls and Dihydronaphthalene", Burroughs Wellcome Lecture II, 9:00 a. m., BW
- Feb 11 K. Wynne, Office of Naval Research, "Surface Properties of Polydimethylsiloxane Segmented and Block Copolymers", **Polymer**
- Feb 11 E. Samulski, University of North Carolina-Chapel Hill, "Nematic Nightmare: What's Important in the Nematic Mean Field?", 4:00 p.m., UNC-CH
- Feb 11 A. I. Meyers, Colorado State University, "Additions of Carbanions to Aromatic Systems: Chiral Biaryls and Dihydronaphthalenes", 9:00 a. m., BW
- Feb 12 P. Gassman, University of Minnesota, "Understanding Electronic Effects in Organometallic Complexes", Duke
- Feb 15 D. Johnson, Iowa State University, "Pulsed Amperometric Detection in Liquid Chromatography", NCSU
- Feb 17 C. Binnie, University of North Carolina, Chapel Hill, "The Clot Thickens: Using Recombinant Fibrinogens to Study Fibrinogen Clotting", noon, UNC-CH
- Feb 18 R. H. Grubbs, California Institute of Technology, "Polymer Synthesis with Organometallic Initiators: Techniques for Precise Control of Polymer Structure", Rohm & Haas Lecture I, 4:00 p. m., UNC-CH
- Feb 19 R. H. Grubbs, California Institute of Technology, "Polymer Synthesis with Organometallic Initiators: New Catalyst Development for Metathesis Reactions", Rohm & Haas Lecture II, 3:00 p. m., UNC-CH
- Feb 19 A. Rajca, University of Nebraska, "High Spin Polyarylmethyl Polyradicals as Building Blocks for Organic Magnets", Duke
- Feb 22 C. Johnson, University of North Carolina, Chapel Hill, "Transport Resolved 2D-NMR Spectroscopy", NCSU
- Feb 24 G. Schatz, Northwestern University, "Theoretical Studies of Transition State Spectroscopy", Duke
- Feb 24 B. Kay, University of North Carolina, Chapel Hill, "Phage Display of Random Peptides for Mapping Epitopes and Discovering Affinity", noon, UNC-CH
- Feb 25 A. Pines, University of California, Berkeley, "Magnetic Moments: Recent Highlights in Solid-State NMR", Peter Smith Lecture, 8:15 p.m., Duke

tions particularly RCRA and Superfund. Must have good writing skills. Will assist in providing support for Superfund management program. Review and evaluate background document related to remedial action at hazardous waste sites. **For. An. Tox. III/Res. For. An. Tox I** F373 64A, B. S. or B. A. in chemistry or related discipline with at least 1-2 years experience with review/certification of GC/MS and immunoassay data, QC procedures and chain of custody. **Natural Products Scientist** F0378 60A, Ph. D. in related area with strong background in natural products chemistry with expertise in isolation and structure determination and/or synthesis and testing. Will provide leadership in natural products research; write grant proposals; manage research projects and supervise laboratory staff. **Five Postdoctoral Chemist** F0363 63A, F0370 63A, F0371 63A, F0372 63A, F0382 63A, positions in the general area of organic chemistry. **Quality Assurance Specialist I** F0379 60D, B. S. in chemistry or biological sciences with experience in analytical chemistry in a GLP environment. Will perform inspections on analytical chemistry and toxicological studies. **Res. Forensic An. Toxicologist I/II** F0374 64A, Ph. D. in chemistry, toxicology, pharmacology or related discipline with experience in the scientific and technical direction of urine drug testing laboratory. Will review laboratory applications and inspection reports, SOP's laboratory data and other information and determine certification status. **Contact:** Office of Human Resources, Research Triangle Institute, P.O. Box 12194, Research Triangle Park NC 27709-2194. (919) 541-6466.

Oneida Ad

**Triangle Chromatography Discussion Group
WORKSHOP**

"Analytical Gas Chromatography - Practical Capillary GC"

**Dr. Walter Jennings and Dr. Dean Rood
J & W Scientific, Folsom, CA**

**8:30 a. m. - 5:00 p. m.
Tuesday and Wednesday, March 2-3, 1993
Room 124, Dabney Hall
Department of Chemistry, NCSU**

This course is designed for practicing analysts and research managers. Topics include: introduction to basic concepts, elementary theory, detector selection and operation, column parameters, optimization of variables, and troubleshooting.

COST: \$190 Non-ACS members
\$160 ACS members
\$80 Students, high school teachers, and post-doctoral fellows

For more information, contact:
Drake Dowler, DraChrom
919-282-5836
919-282-8099 (FAX)

Registration, confirmation/information:
Cindy Allen, OCE & PD
Jane S. McKimmon Center
(919) 515-2261

REGISTER EARLY-Confirmation sent if registration forms received by the deadline.

Deadline for receipt of registration is Friday, February 19

Registration Form for Capillary GC Short Course -- March 2-3, 1993

Name: _____

Affiliation: _____

Street Address: _____

City, State, Zip: _____

Telephone (+ area code): _____

Registration Form must be accompanied by a check or money order Payable to North Carolina State University. REGISTR. CODE = APGC93

Mail to: Ms. Cindy Allen
OCE & PD, Box 7401
North Carolina State University
Raleigh, NC 27695-7401

QTI Inc.

Mass Spectroscopy Discussion Group

In February, Dr. Vicki Wysocki, Virginia Commonwealth University will speak to the Mass Spectroscopy Discussion Group (MSDG). Call Dr. Don Chase, Department of Pediatrics, Duke University Medical Center at 684-2036, Dr. Dan Kassel, Glaxo at 941-3512 or Carol Haney at North Carolina State University at 515-3746 for information about this program or membership in this group.

The MSDG met at Dreyfus Auditorium, Research Triangle Institute, in late January to hear Dr. Nancy Jensen of Phillip Morris Company speak on "Tandem Mass Spectrometry Applied to Analysis of Complex Matrices".

**Glass repair ad
Galbraith**

Job Related Information

Galbraith Laboratories Inc.: Independent Sales Representative for the Scientific Glassware Division of Galbraith Laboratories Inc. Commissioned rep will set up new accounts and service clients for Galbraith Scientific Glass, which repairs and fabricates scientific glassware for industrial and university laboratories. Requires established, experienced representative. For additional information, contact Marian Geohagan at Galbraith Laboratories Inc., 2323 Sycamore Drive, P. O. Box 51610, Knoxville TN 37950-1610, (615) 546-1335.

EPA-RTP: Job line (919) 541-3014. Updated every Friday.

Glaxo: Research Scientist B. S. or M. S. in chemistry, biochemistry or related area with a minimum of 3 years experience or a Ph. D. with 0-2 years experience in the pharmaceutical industry developing analytical methods and specification for peptide drug substances and dosage forms. Familiarity with analytical instrumentation and methods used to characterize protein/peptide molecules is required. Refer to Job #8640-CM. **Automation Expert** responsible for leading the development of laboratory robotics and automation systems to meet departmental requirements. Working knowledge of Zymark systems is required. Relevant experience in the pharmaceutical industry is a plus. A Ph. D. in chemistry with 3-5 years experience is preferred, but a B. S. or M. S. with appropriate background and experience will be considered. Refer to Job #8640-AC. **Please send** resume indicating the corresponding Job # and your GPA to: Human Resources Department, Glaxo Inc., P. O. Box 13398, Research Triangle Park NC 27709. No phone calls or agency referrals. An equal opportunity employer M/F/D/V. (See also Glaxo ad, p. 18)

RTI: In its January 11 listings of current openings at the Research Triangle Institute, the following positions were given: **Analytical Chemist I** G0066 73A, B. S. or B. A. in chemistry. Will perform chemical analyses. **Chemist I** F0368 63A, B. S. or B. A. in chemistry with experience or training in organic synthesis. Will be involved in research to synthesize, purify and analyze organic compounds. **Chemist I** F0376 63A, B. S. or B. A. in chemistry with training or experience in organic synthesis. Will synthesize, purify and analyze novel organic compounds. **Chemist I/II** J0207 91A, B. S. in chemistry with 1-2 years experience in chromatography and chemical analysis. Will assist in methods development and perform chemical analysis. **Chemist I/II** F0362 63A, B. S. with experience or M. S. Will prepare radio labeled compounds and perform organic synthesis. **Chemist I/II** F0369 63A, B. S. or B. A. in chemistry with training or experience in organic synthesis. **Chemist I/II** F381 63A, B. S. or M. S. in chemistry with prior experience in organic synthesis desired. Will synthesize, purify and analyze novel organic compounds. **Chemistry I/II** F0383 64A, B. S. or B. A. in chemistry/Biochemistry with training or experience in organic and analytical chemistry. Experience in HPLC/GC analysis preferred. Should have good writing skills and be computer literate. Will provide analytical chemistry support for toxicity studies: chemical characterization, quantitation of toxic chemicals in biological matrices, data analysis and report writing. **Env. Sci./Eng. III** or **Res. Env. Sci./Eng. I** J0220 91A, B. S. or M. S. in chemistry, environmental science or environmental engineering with 2-3 years experience and knowledge of environmental laws and regula-

Full Page Glaxo Ad

Burseley Elected to ACS Board of Directors

Maurice M. Bursey, Professor of Chemistry at the University of North Carolina, Chapel Hill, was elected in November to the Board of Directors of the American Chemical Society from its Region IV, an area reaching from Washington DC to southeastern Texas. He was also named chairman of the Board Committee on Grants and Awards. Bursey has been a member of the Executive Committee of the North Carolina Section of the ACS since 1972. He has served on its Executive Committee as secretary-treasurer, chairman and councilor. He was the founding chairman of the Section's High School Committee and the Archives Committee and has also served on the Nominations Committee and the Education Committee. He has taught numerous short courses in mass spectrometry for the Section and was one of the first recipients of its Marcus E. Hobbs Service Award in 1988.

In the Council of the American Chemical Society, Bursey has served on the Local Section Activities Committee, the Meetings and Expositions Committee, and the Committee on Committees, most recently as chairman of the last where he oversaw a major review of the governance structure of the Society. He also served the Society as a member of several committees of the Division of Analytical Chemistry, as a member of the editorial board of *Accounts of Chemical Research*, and as a frequent tour speaker.

At UNC, Chapel Hill, Bursey teaches undergraduate and graduate courses in analytical chemistry, and won a Tanner Award for undergraduate teaching in 1976. Also winner of an Alfred P. Sloan Fellowship, he has published some 270 research articles and books, mostly in his research specialty of organic and biological mass spectrometry, but also on the history of the chemical sciences in North Carolina and the Upper South. He is currently president-elect of the North Carolina Institute of Chemists and has been Grand Master Alchemist of Alpha Chi Sigma, the national professional fraternity in the chemical sciences.

Founded in 1876, the American Chemical Society is the largest scientific society in the world, with 145,000 members. The North Carolina Section, the first section in the South, was founded in 1896.

Huffman AD

Micron Ad

confirmed

Local News

BASF: BASF recently gave service awards to Local Section members, Karen Nichols and Gail Thornton-Hawkins.

Boron Biologicals, Inc.: BBI has received a \$50,000 research grant from the National Institutes of Health (NIH) to develop enzyme inhibitors that could eventually shut down virus functions. BBI research may have implications for the treatment of viral infections such as herpes, HIV and cancer. BBI has received several grants from the NIH Small Business Innovation Research Program. This most recent grant relates directly to BBI's ongoing research in the anti-cancer field. The grant also provides BBI with an opportunity to develop new anti-viral agents. "We are pleased to continue our long-standing relationship with the National Institutes of Health," said Charles R. Krause, BBI president and chief operating officer. "Our goal is to establish the feasibility of developing new anti-viral agents by way of enzyme inhibition using boron products."

Ask Not What the ACS Can Do For You, ...

by Bill Switzer (NCSSU)

In the January issue of *The TarHelium*, I had an announcement about outreach opportunities in the American Chemical Society. I ordered a copy of the ACS Education Division Publication, "Outreach Programs of the Chemistry Community". This publication lists a number of activities sponsored by local sections, universities and companies. It is disappointing to see how seldom the North Carolina Section, in particular, appears in this list. Is there a volunteer who might serve to review the activities in this directory and write regular reviews of selected activities for *The TarHelium*? Are there volunteers who might wish to scan this publication to try to focus on activities the Local Section might sponsor? If you are interested, please contact me. My addresses are located on p. 2.

Scientist in Residence

by Bill Switzer (NCSSU)

The Scientist in Residence program of the Science and Mathematics Partnership is coordinated by the NC Museum of Life and Science in Durham. This program pairs area scientists with individual teachers. The Museum has resources available for use by scientists participating in the program. As a participant, myself, I try to visit my third grade classroom at Emma Conn Elementary in Raleigh once every four to six weeks. If you are interested in volunteering for this program, contact Georgie Searles at the Museum in Durham, phone: 220-5429 (Ext. 310). Area agencies, companies and schools who support their employees in this program are: Becton Dickinson, Burroughs Wellcome Company, Cato Research Ltd., Ciba-Geigy, CIIT, Compu-Chem Laboratories, CP&L, Duke University, Glaxo, Howard Needles Tammen & Bergendoff, IBM, Mantech Environmental, Mayfair Animal Hospital, Midwest Research Institute, NC Central University, NC Department of Health, NC Department of Labor, NC Division of Environmental Management, NC Parks and Recreation, NC State University, NIEHS, Pharmaceutical Product Development Inc., PRI Associates Inc., Radian Corporation, Rhône Poulenc Ag Company, RTI, SEC Donohue, Southern Bell Telephone, UNC-Chapel Hill, US Environmental Protection Agency and Wandel & Goltermann.

1993 National Engineers Week, February 15-20

1993 Theme: Engineering Energy

Exposition at Crabtree Valley Mall, Raleigh

Displays and Demonstration (ACS will have a booth)	February 15-19
Model Bridge Design Contest 7:00 p. m.	February 16
ASME Egg Lander Design Contest - 7:00 p. m.	February 17

National Engineers Week Banquet[†]

NCSU Faculty Club, 4200 Hillsborough Street	February 18
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MATHCOUNTS Competition

Location and time to be announced	February 18
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Contact: Harvey Ferris at 546-2059
Chuck McAlister at 677-0100

[†] National Engineers Week Banquet Information:

Social: 6:00 p. m.
Dinner: 7:00 p. m. \$15 (\$7.50 for students) reservations required
Program: 8:00 p. m. Speaker: Mr. William Cavanaugh III
President and Chief Operating Officer
Carolina Power and Light

Reservations deadline: February 15

Send check payable to TCESS:

Triangle Council of Engineering and Science Societies
c/o Dr. Anne Clemmer
2910 Ridge Rd
Raleigh NC 27612

Name(s): _____ Phone: _____

Address: _____

City/State/Zip: _____

Society/Organization affiliations: _____

The North Carolina Section of the American Chemical Society is an affiliate organization of the Triangle Council of Engineering and Science Societies (TCESS). Dr. J. L. Chao (IBM), Past Chair and Councilor from the Section is our representative on the council.

NCSU: The Department of Chemistry announced that **Elizabeth Johnston** is the recipient of the **Robert Proctor Undergraduate Research Scholarship** for the Spring of 1993.

NCSU: The Science House at NCSU has announced several workshops for science and math teachers grades 4-9. Each workshop has four sessions. Although only one is directly aimed at chemistry, all four sound interesting. They are: 1) Hands-On Mathematics: February 15, 22, March 8, 15; 2) Digging Into Earth Science: February 16, 23, March 9, 16; 3) Physics From the Junk Drawer: March 22, 29, April 12, 19; and 4) Countertop Chemistry: March 23, 30, April 13, 20. The workshops will meet from 4:30 - 7:00 p. m. at the Science House in Nelson Hall at NCSU. Teachers will receive one renewal credit upon completion. If you know of any teachers in grades 4-9 who might be interested, please bring this to their attention. For further information and applications, please have them call the Science House at 515-6118.

Organon Teknika: Organon Teknika Corporation (OTC), located in northern Durham county in Treyburn, has been issued the fifth in a series of US patents surrounding technology covering various aspects of its state of the art BacT/Alert[®] culture bottle, instrument and method for detecting microbial growth using the BacT/Alert system. This breakthrough technology is the basis for a new generation of automated blood culture systems which has, among its many advantages, the ability to detect more rapidly life-threatening blood infections. The issued patents cover systems and culture bottles which use various types of sensors, including colorimetric and fluorescent. A specific patent also relates to sensor bottles that are able to prevent antimicrobials from interfering with the growth and detection of microorganisms. OTC has made a significant investment in the development of this new technology which will enable it to compete effectively in the \$250 million annual worldwide market for blood culture testing.

RTI: In its quarterly publication, *Hypotenuse*, RTI reported that its revenues grew by 4.6% in 1992. Revenues reached \$118 million in the year ending September 30, 1992.

Sphinx Pharmaceuticals: Durham based Sphinx Pharmaceuticals Corporation announced that it has filed an Investigational New Drug (IND) application with the US Food and Drug Administration (FDA) for Kynacyte[™] (safingol) to evaluate its potential to enhance the efficacy of selected chemotherapeutic agents in the treatment of certain cancers. Kynacyte is designed to inhibit the activity of a family of intracellular enzymes known collectively as protein kinase C (PKC). These enzymes have been demonstrated in cellular and preclinical models to mediate key cellular functions, including cell proliferation and abnormal cellular differentiation, that are involved in the manifestation of cancer. In preclinical studies, Kynacyte has been shown to enhance the antiproliferative effects of doxorubicin, a commonly used anticancer agent, and potentiate doxorubicin's ability to suppress tumor growth.

Sphinx expects to initiate a Phase I clinical trial within 60 days to determine the safety and pharmacokinetics of Kynacyte when the compound is administered intravenously alone and in combination with doxorubicin. The trial, which is expected to

involve approximately 20 to 30 cancer patients with solid tumors, will be conducted at Memorial Sloan-Kettering Cancer Center in New York City.

"Kynacyte represents our second IND filing in the past six months," said Clayton I. Duncan, President and CEO of Sphinx. "In addition to studies with doxorubicin, we expect to evaluate the use of Kynacyte in conjunction with other chemotherapies, including cisplatin, in patients with solid tumors." Conventional chemotherapies for cancer, such as doxorubicin, suppress tumor growth by entering tumor cells and interfering with these cells' ability to multiply. However, traditional chemotherapies are not effective against certain cancers due to the ability of tumor cells to become resistant to specific drugs or increase intracellular removal of chemotherapeutics. Scientists at Sphinx believe that Kynacyte inhibits the intracellular removal of doxorubicin, as well as influences other cellular mechanisms involved in cell proliferation.

CALL FOR PAPERS 10th Annual TCDG Symposium and Instrument Exhibit

The Triangle Chromatography Discussion Group (TCDG) will hold its 10th Annual Exhibit, Symposium and Poster Session at the McKimmon Center in Raleigh on Thursday, May 27, 1993. As part of this meeting, the Group will sponsor a poster session. Anyone is invited to participate in the poster session, but for student posters only, prizes will be given. The first prize is \$400 and second prize is \$200. Deadline for receipt of abstracts is Monday, March 1, 1993. The abstract should be no longer than one page. Send the abstract along with title, authors, affiliation, complete address and phone number to:

Dr. Joe Hudson, Poster Chair
TCDG
P. O. Box 12242
Research Triangle Park NC 27709

Acceptance will be acknowledged no later than the end of March.

New GALBRAITH LABORATORIES, INC.

CALL FOR PAPERS

**107th NC Section Conference
Saturday, April 24, 1993
North Carolina State University, Raleigh NC**

Author(s): _____

Position(s): _____

Title: _____

Phone (senior author): _____

e-mail address: _____

Presenter: _____

Institution: _____

Session:

- | | | |
|-------------------------------------|---------------------------------------|---|
| <input type="checkbox"/> Analytical | <input type="checkbox"/> Biochemistry | <input type="checkbox"/> Chemical Education |
| <input type="checkbox"/> Inorganic | <input type="checkbox"/> Organic | <input type="checkbox"/> Physical |
| <input type="checkbox"/> Polymer | <input type="checkbox"/> Other | |

Other (specify): _____

Type of Session: Regular Poster Either

Type of Projector: _____

DEADLINE: Friday, March 19, 1993

Send application to:

William L. Switzer	Internet: bill_switzer@ncsu.edu
Chemistry-8204	(919) 515-5079 (FAX)
North Carolina State University	(919) 515-2945 (W)
Raleigh NC 27695-8204	(919) 847-7471 (H)

107th NC Section Conference in April

The 107th Conference of the North Carolina Section is planned for Saturday, April 24, 1993 at North Carolina State University. For those expecting it to be located at Duke this year, we were forced to make a venue change because of scheduling conflicts. Please join us in presenting papers at this meeting. It is run as closely as possible in the format of a national meeting. There is an opportunity to present in either a regular or a poster session. As in past years, we plan to have a meeting favor for those who present and we invite all presenters to be the guest of the Section at a buffet luncheon that follows the meeting. The deadline for receipt of titles is Friday, March 19, 1993. An application form showing the required information is given below. Please feel free, however, to send the information by e-mail, FAX or phone.

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