Homeland Security and Analytical Chemistry

In a workshop at the National Science Foundation in January, Randy Murch, Ph.D. and Deputy Assistant Director of the FBI, brought a message to the chemistry community: “We need help and we need it now.”

Following the events of the fall, analytical chemistry finds itself at center stage. We have unprecedented responsibilities and opportunities to contribute to issues of national importance. In a number of meetings throughout the winter and spring, our political and scientific leaders have called on the chemical community to provide rapid, sensitive, novel technologies for stand-off and point detection and sensing. One of these public forums was the symposium organized by the ACS Committee on Science for the national meeting last April, in which both science policy leaders and analytical chemists spoke. Chemical and biological agents, as well as explosives, are targets of concern. In addition, chemists are being called on to contribute to personal protection gear and to develop substances for neutralization and detoxification.

The U.S. Department of Defense has supported development of analytical instrumentation to monitor battle spaces and warfighters for some years. However, the requirements for continuous automated monitoring of subways, buildings and public spaces are new. The goals are to develop real-time, robust, automated sensors capable of detecting agents well below incapacitating levels. Analytical technologies are also needed to protect animal and crop health, and for rapid diagnoses of humans to confirm infection or chemical exposure. Active technologies include immunochemistry, all kinds of spectroscopy (including PCR readout), ion mobility spectrometry and mass spectrometry. There are important contributions to be made by computational chemists and computer scientists. Progress in portable fuel cells and batteries is sorely needed, and important opportunities exist to deploy new materials in analytical systems.

Henry Blount urged, and the Program Committee and the Executive Committee agreed, to support a series of symposia through several upcoming national ACS meetings, which will highlight analytical chemistry’s central role in homeland security and national defense. In Boston this August we will have an overview of critical technologies across all specialty areas. In New Orleans (March, 2003) a symposium will review progress and challenges in miniaturization of instruments. For the national meeting in New York City, September 7-11, 2003, our Division is planning a full day symposium on analytical support for first responders. The New York symposium will focus on systems that are available now. The major objectives of these symposia are to encourage the chemical community to focus its creativity on new analytical paradigms for counterterrorism, to encourage students to make careers in analytical chemistry, and to inform the public about our science and our contributions to homeland security.
YOU'RE INVITED TO OUR NEXT MEETING

The executive committee will meet in Boston, time and location to be announced.

You may suggest items to be discussed by sending them by electronic mail to Prof. John N. Richardson or by fax to (717) 477-4048.

The Division

1) Provides a forum for discussions of advances in Analytical Chemistry. 2) Increases awareness of the field on other scientists and the general public. 3) Encourages students to select Analytical Chemistry as their field of study. 4) Advises the ACS on matters related to Analytical Chemistry and 5) Offers analytical chemists opportunities for professional contacts.

Mission of the DAC

The promotion of analytical chemistry in all of its aspects; the presentation of programs of papers on analytical chemistry and related fields at national meetings of the Society; cooperation with local sections and regional groups; the organization and sponsorship of symposia on topics of interest to analytical chemists; the development of activities which will promote the growth of analytical chemistry; and the establishment of means for increasing the professional status of and the contacts between analytical chemists.

Chair: Catherine Fenselau
Phone: (301) 405-8616
FENSELAU@UMAIL.UMD.EDU

Chair-ELE: J. David Pinkston
Phone: (513) 627-2269
PINKSTON.JD@PG.COM

Secretary: John Richardson
Phone: (717) 477-1774
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Treasurer: Carolyn Ribes
Phone: (979) 238-5496
CRIBES@DOW.COM

Editor Newsletter: Al Ribes
ARIBES@DOW.COM

Division's Website: www.acs-analytical.duq.edu/analytical.html

YOU'RE INVITED TO OUR NEXT MEETING

The executive committee will meet in Boston, time and location to be announced.

The Division Dinner at the Boston Meeting

Legal Sea Foods
Park Square Location 26 Park Plaza, Boston.
Phone: (617) 426-4444
It's a 4-5 block walk from the Convention Center or a ~$4 cab ride.

****Gourmet Magazine October 2000 Best Seafood in Boston Award.
****Bob Appetit Magazine: September 2000 Favorite Restaurants Award

Monday 8/19/02
Social Hour (Cash Bar) 6-7 p.m. Dinner 7 p.m.
Choice of Baked Scrod (Boston favorite), Nutty Salmon (everyone’s favorite), Chicken Marsala or Vegetarian entrees.

$49 per person (Please order tickets when you pre-register)
Boston Analytical Division Program

by D. Pinkleston, P&G

The Analytical Division’s program for the 224th National ACS Meeting will encompass both cutting-edge science and discussions of social issues relevant to today’s analytical workforce. In recognition of ACS’s “Year of the Woman”, and the 75th Anniversary of the Women’s Chemists Committee, the Analytical Division will kick off its program with a full-day symposium celebrating the contributions of women in analytical chemistry on Sunday, 8/18/02. This symposium will extend into the evening with a reception and invited poster presentations. The importance of collaboration between the sexes will be reinforced by a full-day symposium on Wednesday, 8/21, titled “Factors for Success – Collaborations in Research.” These symposia are co-sponsored by the WCC and the Younger Chemist’s Committee (YCC). Dealing with another topic of paramount importance in today’s world, “Analytical Chemistry for Homeland Defense and National Security”, scheduled for Tuesday, 8/20, will bring together experts to address these topics from a variety of viewpoints. On Monday, 4/22, the Division will present its annual awards (see information elsewhere). Wednesday will feature a full-day pedagogical symposium on the nature and uses of Synchrotron Radiation. The views of the authors will be both within and beyond analytical chemistry, thus the title “Chemical Science Using Synchrotron Radiation”, as well as a long list of co-sponsoring divisions. Noninvasive and minimally invasive glucose sensing will be featured in a full-day symposium on Sunday, 8/18. Other symposia will cover advances in affinity-based drug characterization, electro-driven separation methods, micro-chemical reactors, and analytical surface plasmon resonance spectroscopy.

DAC Graduate Fellowships

(continued from column 3)

who have completed or soon will complete their terms – Dr. Grover Owens from Procter & Gamble (Grover was a 1977 academic year fellowship recipient), Dr. Candace Sass from Eastman Chemical, Dr. Eugene Rickard from Eli Lilly, Mr. Al Sharkins from the Society for Analytical Chemists of Pittsburgh, and Professor; Margaret Merritt from Wellesley College (30-year Committee member and Committee Chair from 1983-1987). They have our gratitude and thanks for the wonderful work they have done for the Committee.

Further information about the DAC Graduate Fellowship Program can be found on the Program web site (http://www.wabash.edu/dacgraduatefellowship/home.htm).

DAC Graduate Fellowships

by R.Dallinger, Wabash College

The DAC Graduate Fellowship Committee is pleased to report that the following graduate students have accepted Division of Analytical Chemistry fellowships for 2002-2003. We are grateful to the corporate sponsors for their financial support of the graduate program.

Academic Year Fellowship Recipients ($18,000 stipend):

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Institution</th>
<th>Advisor</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>Carrie Donley</td>
<td>Arizona</td>
<td>Neal Armstrong</td>
<td>P&amp;G</td>
</tr>
<tr>
<td>Joel Kimmel</td>
<td>Stanford</td>
<td>Richard Zare</td>
<td>Merck</td>
</tr>
<tr>
<td>Shane Peper</td>
<td>Auburn</td>
<td>Eric Bakker</td>
<td>Lilly</td>
</tr>
<tr>
<td>Kimberly Roy</td>
<td>Alberta</td>
<td>Charles Lucy</td>
<td>DuPont</td>
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Summer Fellowship Recipients ($6,000 stipend):

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Institution</th>
<th>Thesis Advisor</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zoraida Aguilar</td>
<td>Arkansas</td>
<td>Ingrid Fritsch</td>
<td>J&amp;J-PRD</td>
</tr>
<tr>
<td>Frederick Cox</td>
<td>Delaware</td>
<td>Murray Johnston</td>
<td>SACP</td>
</tr>
<tr>
<td>Amanda Haes</td>
<td>Northw.</td>
<td>R.Van Duyne</td>
<td>Eastman C.</td>
</tr>
<tr>
<td>Fanyu Meng</td>
<td>Illinois</td>
<td>Neil Kelleher</td>
<td>Dow Found.</td>
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<tr>
<td>Allison Null</td>
<td>Virginia Cm.</td>
<td>David Muddiman</td>
<td>SACP</td>
</tr>
<tr>
<td>Michael Roper</td>
<td>Florida</td>
<td>Robert Kennedy</td>
<td>SACP</td>
</tr>
<tr>
<td>Rachel Smith</td>
<td>Penn State</td>
<td>Paul Weiss</td>
<td>SACP</td>
</tr>
</tbody>
</table>

(SACP = Society for Analytical Chemists of Pittsburgh)

(J&J-PRD = Johnson & Johnson Pharmaceutical R&D)

Honorable Mention:

<table>
<thead>
<tr>
<th>Applicant</th>
<th>Institution</th>
<th>Thesis Advisor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christine Hughey</td>
<td>Florida State</td>
<td>Alan Marshall</td>
</tr>
<tr>
<td>Christopher Orendorff</td>
<td>Arizona</td>
<td>Jeanne Pemberton</td>
</tr>
<tr>
<td>Andrew Pris</td>
<td>Iowa State</td>
<td>Marc Porter</td>
</tr>
</tbody>
</table>

An article congratulating these students will appear in the September 1, 2002, edition of Analytical Chemistry.

It is interesting to note that three of the thesis advisors for the 2002-03 graduate fellowship recipients and honorable mention applicants were themselves DAC graduate fellows: Neil Kelleher (1996 academic year), Robert Kennedy (1987 summer) and Jeanne Pemberton (1980 summer).

The members of the Graduate Fellowship Committee who generously gave many hours of effort were: Curt Cleven – Eastman Chemical (sponsor); Paul Edmiston – College of Wooster; Patrick Epperson – Lawrence Livermore National Laboratory; Susan Forest – Procter & Gamble (sponsor); Nile Frawley – Dow (sponsor); Angela Harmon – Merck (sponsor); Mary Kaiser – DuPont (sponsor); Margaret Merritt – Wellesley College; Eugene Rickard – Eli Lilly (sponsor); Allen Sharkins – Society for Analytical Chemists of Pittsburgh (sponsor); and James Weber – R.W. Johnson Pharmaceutical RI(sponsor).

The Committee would like to recognize the following members (Continued on page 3 column 1 bottom)
The Graduate Fellowship Committee wishes to pay special tribute to Professor Margaret V. Merritt of Wellesley College, who is leaving the Committee after 30 years of exceptional service, including four as Chair (1983-1987). Peggy has been an enthusiastic supporter of the mission of the DAC Graduate Fellowship Program and has brought incredible wisdom and energy to the selection of the Graduate Fellows for the past three decades. During that time, Peggy has read almost 1500 fellowship applications and has participated in the selection of over 300 Graduate Fellows. Peggy Merritt has had a significant impact on the discipline of analytical chemistry through her work on the Committee, as well as through her teaching and research. Peggy noted in her final message to the Committee Chair that, “I am grateful being able, through this process, to know many of the current leaders in analytical chemistry at an early stage of their careers. Seeing the many fine applicants for these awards gives one great hope for the future of our discipline; it will be in very capable hands.”

Peggy graduated from the College of Wooster in 1964 and earned her Ph.D. in 1968 from Cornell University. Following postdoctoral appointments at the University of California Riverside and Carnegie Mellon, Peggy taught at Franklin and Marshall College from 1970-1972. Peggy held the position of Research Chemist and Head of Physical and Analytical Research at Upjohn from 1972-1982; it was during this time that she became a member of the Graduate Fellowship Committee. In 1982, Peggy joined the Chemistry faculty at Wellesley College, where she is currently Professor of Chemistry.

Thanks, Peggy! Your efforts on behalf of the Graduate Fellowship Committee have been truly above and beyond the call of duty. You will be greatly missed.

R. Dallinger
Wabash College
Graduate Fellowship Committee Chair

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**Pfizer Graduate Travel Awards**

The Division of Analytical Chemistry of the American Chemical Society has established the Pfizer Graduate Travel Awards in Analytical Chemistry. The award provides funding for graduate students to travel to an ACS National Meeting and to present the results of their research in the form of a poster at the Poster Session of the Division of Analytical Chemistry. Funds from the Pfizer Award may be applied toward registration, travel, and accommodations. Only U.S. citizens and permanent residents are eligible. Preference will be given to those applicants who have not made a previous presentation at a National scientific meeting. Five Awards up to $1000 will be made on the basis of both scientific merit and financial need.

The recipients of the 2002 Award are:

- Jesse Buch, U. Maryland.
- Michael Hurray, U. N.C.
- Bryan Ray, U. Wyoming
- Jeffrey Stuart, U.Illinois
- Jennifer Thomas, U.Cincin.

The next deadline for applications will be announced at the DAC web site in late 2002.

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**Symposia at the New Orleans ACS Meeting March 23-27, 2003**

The Division is organizing the following symposia for the Spring 2003 meeting:

- *Present and Future Technologies in Chemical Instrumentation.*
- *From Sensor to Functional Instruments.*
- *Microelectrochemical Systems and Arrays.*
- *Capitalizing on Data Diversity: Interfacing Advances in Informatics and Measurements.*
- *Compatibility and Stability Issues in Materials for Chemical Sensing and Analysis on a Chip.*
- *Process Analysis.*
- *Function Based Approaches to Analysis.*
- *Fieldable Instrumentation for Homeland Defense.*
- *That Technique Won’t Work because…..*
- *Surpassing the Limitations of Analytical Instrumentation.*
- *Award Symposia.*
The Sub-Division will be holding an election for the office of Chair-Elect, Secretary and for three members of the Executive Committee. Chair-Elect serves for two years then automatically succeeds to the Office of Chair. In conjunction with other members of the Executive Committee, one of the primary responsibilities of the Chair-Elect is to organize scientific programs at national ACS meetings. Prof. John Dorsey of Florida State University’s Department of Chemistry, Tallahassee, FL is this year’s candidate for Chair-Elect. For Secretary, Bob Stevenson of the Abacus Group and Douglas Raynie, Chemistry and Biochemistry Department, South Dakota State University are the Candidates.

Executive Committee members serve for two years. Both officers and committee members are expected to participate in yearly Subdivision meetings, provide inputs to the program committee on sponsored symposia at local section, regional and national meetings, and generally work to increase the professional status and contact between scientists interested in chromatography and separations chemistry. This year there are five candidates for three positions. They are:

Matt Przybyciei of ES Industries, Berlin, NJ; Prof. John Nikelly, Chemistry Department, University of the Sciences in Philadelphia, PA; Linda McGown, Chemistry Department, Duke University, Vincent Remcho, Chemistry Department, Oregon State University, and Janusz Pawliszyn, University of Waterloo, Canada.

Ballots will be in the mail to all Sub-Division members shortly.

Young Investigators Award in Separation Sciences Proposed

Subdivision member inputs on the establishment of a Young Investigators Award in Separation Sciences will be solicited on the upcoming election ballot. The Award would be based on the contributions of separations’ chemists who have been working in the separations field for less than ten years since obtaining their Ph.D. or advanced degree. The Award would consist of a plaque, a cash prize, and a special technical Award session at a national meeting. The Subdivision officers would establish the criteria for the Award and an Award subcommittee consisting of appointed Subdivision members would evaluate nominees for the Award. Any company or institution that would like to be considered for Sponsorship of this Award should contact Chair-Elect, Vicki McGuffin, e-mail: jgshabus@aol.com.

Meeting at Pittcon

Since many members of the chromatography community attend the Pittsburgh Conference, the Annual Meeting of the Subdivision traditionally takes place at Pittcon after the Dal Nogare Symposium, always held on Monday morning. This year’s event took place on March 18, where new officers of the Subdivision were introduced: Vicki McGuffin, Michigan State University, Chair-Elect and Executive Committee members, Bob Stevenson, Abacus Group, Susan Olesik, Ohio State University, and Brian Bidlingmeyer, Agilent Technologies. Recent changes in Bylaws dictated that offices for this Summer for officers and Executive Committee members whose terms on expiring this Fall.

One of the main activities of the Subdivision is to sponsor sessions at ACS National Meetings. For the Spring meeting in Orlando, the Subdivision was a sponsor of a Symposium on Polymer Separations organized by Prof. Susan Olesik and chaired by Prof. Catherine Fenselau, University of Maryland. For the upcoming Fall meeting in Boston, the Subdivision is a cosponsor of three Symposia:

HPLC Method Development, organized by K.J. Norris, Pfizer, Inc. Advances in Affinity-Based Techniques for Drug Characterization, organized by D. Hage, University of Nebraska.

Electrodriven Separation Methods, organized by I.Krull, Northeastern University and L. Colon, The State University of New York-Buffalo.

Ideas for future Symposia were discussed including the possibility of annual symposia in ion chromatography, field flow fractionation and size exclusion chromatography. Interested organizers should contact, Victoria McGuffin, e-mail: jgshabus@aol.com. Ways to promote the Annual meeting prior and during Pittcon, when and how to begin a Subdivision website within the DAC website, and on the establishment of a Young Investigators Award in Separation Science were other topics covered.

Ron Majors,
Sub-Division Secretary

Pacifichem 2005
Hawaii, December
15-20,2005

Call for papers starting September 1st, 2002
Details can be found at: www.pacifichem.org
Analytical contact: Mike Ramsey at ramseyjm@ornl.gov
DAC dinner at the Orlando meeting

Graham Cooks (l), Henry Bohn Hass
Professor @ Purdue U., Michael Gross,
Washington U., and Allan Marshall (r),
Director Nat. High Magnetic Field Lab.

Nizamov Negmat, attendee from Samarkand
U., Uzbekistan, receives a copy of the ACS
meeting abstracts from our DAC chair
Catherine Fenselau.

Kolthoff awardee Helen Fleisher (l)
with Cynthia Larive (r), DAC Education
Committee.

J.D. Tate, DAC Awards Committee with Allan
Newman, Managing Editor of the Analytical
Chemistry Journal.

Linda Bly with Don Bly (l) Frank A. Guthrie,
former DAC Chairs. Don is the 2002 DAC
awardee for distinguished service.

John Richardson, DAC Secretary with Royce
Murray, Editor of the Analytical Chemistry
Journal and Jenny Richardson.

DAC Councilor and Web Editor Roland Hirsch,
Councilor Sally Stafford, and Don Jones.

John Richardson, hands out a recognition
plaque to Bruce Chase, former DAC chair.

Anna and Ed Yeung with Catherine Fenselau.

DAC KOLTHOFF Student Awardees at the Orlando Meeting

Kristin Smith

Jennifer Gasser

Aubrey Dyer

Helen Fleisher
Recipients of the 2002 Division of Analytical Chemistry Awards

Professor Sweedler received his B.S. degree in Chemistry from the University of California at Davis in 1983 and his Ph.D. from the University of Arizona in 1989. Thereafter, he was a NSF Postdoctoral Fellow with Dr. Richard Zare and Dr. Richard Scheller at Stanford University, and joined the faculty at the University of Illinois, Urbana in 1991. He is associated with the Beckman Institute, Biotechnology Center, Neuroscience Program and Bioengineering Program. He is currently a professor in the Analytical Area of the Department of Chemistry, the Neuronal Pattern Analysis and Biological Sensor Groups at the Beckman Institute, and of Bioengineering with major research interests in developing new analytical instrumentation for determining the chemical composition of complex microenvironments. Much of his group’s work involves scaling spectroscopic methods to the nanoliter to attoliter volume regimes to allow the identification and quantitation of neuroactive compounds from cellular microenvironments.

Sweedler’s group has developed several unique detection systems for capillary electrophoresis that enable low concentration assays of several classes of signaling molecules from microenvironments. As one example, they created a unique post-column radionuclide detection system for capillary electrophoresis that obtains nearly a thousand-fold increase in sensitivity compared to previous methods, and allows the detection of 3H-labeled compounds for the first time. He and his collaborators have developed nanoliter volume NMR spectroscopy. Before this work, there were no published examples of high resolution NMR spectroscopy for nanoliter-volume liquid phase samples. Over the last six years, they have developed microcoil rf probes that significantly improve the mass sensitivity of high resolution NMR. Their initial success in this area has been demonstrated by a number of firsts including: the first demonstration of NMR detection for capillary electrophoresis; the first detection for microbore LC, the first detection sensitivity for static measurements in the low picomole range for a one minute acquisition (described in a report in Science), and even the creation of a small company based on this technology.

His research group has also developed new matrix-assisted laser desorption/ionization time-of-flight mass spectrometry protocols to profile the peptides in individual neurons and cellular processes. They have obtained high quality mass spectra from samples ranging from single cells, nerves, single processes, as well as nanoliter volume desalting methods, and used these to discover multiple new neuropeptides. A technical tour-de-force, his group has developed mass spectrometric sampling protocols that allow them to assay individual attoliter-volume peptide-containing vesicles; using this technique, they detect new peptides and unexpected peptide processing in single vesicles, and are now studying how products from multiple genes are packaged within individual vesicles.

A subset of Sweedler’s research is designed to understand the molecular (chemical) nature of learning and memory. By advancing the instrumental capabilities in separation science and in spectroscopy, significant gains have been made in understanding the distribution and release of neurotransmitters from individual cells in several invertebrate model systems. One of the underlying goals of scientific research over the past century has been to understand the nature of thought. The involvement of the chemical sciences in this problem is growing as attention turns to dynamic measurements. Specifically, the new instrumental methods Sweedler and his group have developed allow trace-levels of the chemical signaling molecules present in and released from neurons to be identified and quantified. The Sweedler group’s interdisciplinary research bridges the worlds of analytical instrumentation and cellular neurobiology. Using the methods he has developed, he and his collaborators have discovered and characterized new neuroactive peptides such as Aplysia insulin, the enterins and cerebrin; measured NO production and NO interactions with classical transmitters and studied neurotransmitter cotransmission, all at single cell levels.

For this research, he has received numerous awards including: the National Science Foundation Young Investigator Award, a Packard Fellowship, Dreyfus New Faculty and Teacher Scholar Awards, a Searle Scholar’s Award, a Sloan Fellowship, the ACS Analytical Division Arthur Findeis Award, the Benedetti-Pichler Award in Microanalysis, the Gill Prize in Instrumentation and Measurement Science, a fellow of the American Association for the Advancement of Science, a special creativity extension from the NSF, the 2002 Merck Prize, 2002 Instrumentation Award from the Analytical Division of the ACS, and has recently been named as a Lycon Professor of Chemistry at the University of Illinois. He has been or is currently on the editorial boards of the Journal of the American Chemical Society, the Analytical Chemistry A-page advisory board, Analytical and Bioanalytical Chemistry, Electrophoresis, Analytica Chimica Acta, Fresenius Journal of Analytical Chemistry, The Journal of Microcolumn Separations, and The Journal of Separation Science.
Professor Taylor received a B.A. (1956) in chemistry and mathematics from Vanderbilt University, and M.S. (1958) and Ph.D (1964) degrees in chemistry from the Georgia Institute of Technology and the University of Illinois, Urbana, respectively. He received a NIH Predoctoral Fellowship from 1962 - 1964, later joined the University of Wisconsin-Madison as Assistant Professor of Chemistry, and was promoted to Professor in 1973. Although primarily an analytical chemist, Prof. Taylor served as chair of the Materials Science Program at Wisconsin (1986-1990) as well as chair of the Analytical Sciences Division in the Chemistry Department (1991-1995). He is currently an Emeritus Professor of Chemistry who retired in 2001 as the John Bascom Professor of Chemistry, the Executive Director of the Synchrotron Radiation Center (SRC), Associate Director of the Center for NanoTechnology (CNTech), and a Founding Fellow of the UW-Madison Teaching Academy. Despite his retirement, he has returned to UW-Madison with an appointment as Principal Investigator of the National Science Foundation funded SRC and Associate Director of CNTech.

Professor Taylor has received numerous teaching honors from UW-Madison including serving as Fellow and Chair of the Teaching Academy. In honor of his career efforts in this regard, the UW-Madison Chemistry Department teaching awards, sponsored by Pharmacia Corporation, were renamed this year as the “Professor James W. Taylor Excellence in Teaching Awards. In addition, he received the “Excellent Service as Educator/Researcher” award from Semiconductor Research Corp (1988-2000) and the Alan Berman Research Publication Award from the Naval Research Laboratories (1994). He serves as a consultant for numerous private and government interests, is on the Science Advisory Board for the SESAME Project 1999-2001, and holds memberships in Sigma Xi, ACS, and the American Association for Higher Education.

Current support for Professor Taylor’s research efforts totals nearly $70 MM from various government and private agencies. There have been 48 Ph. D. graduates from Wisconsin who participated in the Taylor Group covering the areas of analytical chemistry and materials science, and there were, to date, 195 publications, patents, book chapters, and book reviews. He considers his greatest accomplishment as contributing to the development of those scientists who participated in his group and those he taught in the instrumental analysis courses. His participation in the founding of the Teaching Academy and his involvement with its activities both locally and nationally with the peer review of teaching illustrate his concern for and interest in new and creative ways of learning and the sharing of these ideas across many disciplines. During his research involvement – which continues – Prof. Taylor and his students have developed pioneering techniques for stable kinetic isotope effects, photo-ionization mass spectrometry, photoelectron spectroscopy with angle-resolved measurements, and the creation of a variety of analytical approaches for photoresist materials than can be used for nano-devices and nano-circuits.

Did you know?

The Division of Analytical Chemistry received in 2001 a Chemluminary Award from the ACS for service to the members of the Division.
Recipient of the 2002 Division of Analytical Chemistry Awards

Dr. Donald D. Bly received a B.A. from Kenyon College, Ohio, and a Ph.D. degree in Analytical Chemistry from Purdue University with Professor M. G. Mellon. He served as an Eli Lilly Post Doctoral Fellow at Purdue from 1962-63 before joining the Textile Fibers Department at Du Pont as a research chemist. He later transferred to Central Research and Development and progressed through the ranks as a staff chemist, supervisor, and then manager of analytical sciences at the Central Research & Development Department of the Du Pont Company in Wilmington, DE. As a supervisor, he was responsible for a wide variety of analytical analysis techniques and developmental research. His group ranged in size from 10 - 20 scientists. He strategically set the directions of both research and service commitments, which included the direct analysis of many thousands of chemical research samples each year. As Manager, 1978 - 1990, he continued with the oversight commitment to these supervisory functions, but had increased responsibility for major instrument installations, for manpower, operating and capital budgets, and for the creation of jobs and the running of various internal committees and symposia. Other responsibilities at Du Pont included managing the corporate recognition and rewards program, involvement with organizational effectiveness, and overseeing the writing of contracts and agreements.

During 1987-1990 he also held a part-time corporate position entitled “Liaison to the Corporate Committee on Special Compensation (CSC)”, that provided oversight for the awards program in Du Pont. During his tenure, he created a Corporate Departmental Coordinators group, Awards Council and new methods for implementing recognition programs. As a result, recognition programs increased 8-fold in Du Pont with support from CSC.

While at DuPont, Dr. Bly published 18 technical papers in analytical and polymer journals, 3 chapters, and is co-author of two books: Modern Size-Exclusion Liquid Chromatography and the other in 1995, entitled Career Transitions for Chemists. He has been active professionally, especially in the American Society for Testing and Materials (ASTM), the Division of Analytical Chemistry

AWARD FOR DISTINGUISHED SERVICE IN THE ADVANCEMENT OF ANALYTICAL CHEMISTRY

2002 AWARDEE

DONALD D. BLY

Dr. Donald D. Bly

Donors and Subscribers' List
ONE-STOP-SHOPPING FOR CHEMICAL SAFETY INFORMATION AT ACS

Are you looking for chemical safety information for teachers, for students of all grades, or for your business, and you need it quickly? The ACS Committee on Chemical Safety website is the place to stop and “shop.” Many of the publications are available free-of-charge in electronic format from the website. All publications contain ordering information. Visit the website at http://chemistry.org/committees/ccs for additional information.

NEED SALARY INFORMATION?

The popular, new ACS Salary Comparator is posted on the ACS Department of Career Services website http://center.acs.org/applications/acscomparator/page01.cfm and is available for ACS members only. It can provide answers to your salary-related questions by providing current information applicable to specific employment situations. This new tool reports the complete range of full-time base salaries being paid to ACS members in a variety of jobs. The comparator gives attention to many specific factors that influence pay, including experience, level of education, professional specialties, job functions, types of employers, and geographic location. Both academic and non-academic positions are covered. The second edition of the comparator has been completely updated with new data from ACS employment surveys conducted in 2001 in the US.

You will need to define an employment situation. The system will then generate the median (50th percentile) base salary for such positions, plus a series of additional percentiles (from 10th to 90th) that show the ranges of pay for these jobs. Salary figures will be automatically updated bi-monthly to allow for inflation since the last ACS salary survey was conducted. You can even test potential effects of such things as getting an advanced degree or changes in your duties.

(Continued on next page)
The 2002 Eastern Analytical Symposium Returns Home

The Eastern Analytical Symposium returns on Nov. 18th to the Garden State Exposition Center in Somerset NJ. It will feature an extensive exhibit of analytical equipment, and a wide variety of technical papers and posters, educational workshops and short courses. Invited technical sessions planned include a celebration of the 50th anniversary of gas chromatography, forensic analysis, conservation of cultural materials, pharmaceutical analysis, spectroscopic imaging and many more. A complete listing is available on the EAS web site (www.eas.org). The Employment Center will also be running, to serve both job seekers and employers.

EAS is the second largest conference and exposition in the United States dedicated to the needs of analytical chemists and those in the allied sciences. In Somerset, EAS is conveniently located for thousands of scientists from industry, academia, and government. Now is the time to plan to attend.

In addition to the many events for scientists and technicians, several programs are offered for students. New this year is a day-long seminar for students interested in pursuing careers in the pharmaceutical industry. The long-running seminar on the Professional Analytical Chemist in Industry continues this year, as well as a two day symposium on Academic Careers in Chemistry for those nearing the completion of the Ph. D. Further information on these and other programs can be found on the EAS web site, or by email from easinfo@aol.com. If you do not now receive the Retort, the EAS newsletter, an email to this address will put you on the mailing list.

On-line pre-registration with credit card payment will be available on the web site, as well as information on housing and travel. We hope to see you at EAS.

Nov 18th, Somerset NJ

The New National Employment Clearing House

Registration for NECH, the onsite career center where attendees can search and participate in job interviews, begins June 17 for job seekers and employers planning to attend the ACS national meeting in Boston, August 18-21.

In an important departure from past practice, there will be no on-site NECH registration at the meeting. NECH registration will remain open until a few days before the Boston meeting. But once job seekers and employers arrive at the meeting, the focus will be on scheduling and holding interviews. It is vitally important to register beforehand so you don’t miss the opportunity to attend NECH.

All registration by job seekers and employers will be completed online between June 17 and Aug. 14. Watch http://chemistry.org to obtain further information or to participate in NECH.

The new NECH database, debuting in Boston, will be fully computerized and Internet accessible. Changes in registration procedures are just a part of a major upgrade of NECH -- perhaps the most substantial overhaul in its 65-year history. The improvements are broadly intended to enhance the communication and interaction between job seekers and employers both before -- and during -- national meetings. For both job seekers and employers, NECH’s “new way of doing business” will allow for direct access to resumes and positions and permit attendees to schedule interviews and send messages via internal email almost two months before the meeting. This new feature will allow job seekers and employers to set up their calendars more effectively, thus affording more time for their on-site interviews.

Because the database is accessible, via the Internet, from any computer anywhere, both parties will have more freedom to attend other events during the meeting. Another feature of the new database is that both parties will have individual electronic accounts which will record how many responses they have received to their resume or job posting. Job seekers and employers can set up “agents” that will send electronic alerts about jobs/candidates that fit their needs. And other opportunities for sharing information with a prospective employer/employee, include attaching a research paper or linking to the company’s website.

Among the benefits of the new system, job seekers will be able to:
- Maintain a personal calendar
- Search job postings
- Request interviews
- View interviews scheduled by employers
- Get personal email reminders
- Get information about jobs and employers before the meeting from any computer with Internet connection, located anywhere.

Employers can get online and:
- Maintain a personal calendar
- Search resumes
- Setup interviews
- Get personal email reminders
- Track interview activity
- Collect statistics on postings and interviews

To help with your transition to this new system, visit http://chemistry.org/careers over the next few months for updates and tutorials.