

SEAC *communications*

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We thank our sponsors and welcome new ones...

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*Quote to remember? (is it still true?): “We do these things, not because they are easy,
but because they are hard.”*

- President's Message

"Buzz" Adams' Legacy, SEAC @ PittCon 2003

In my last message, I talked about "high impact" electroanalytical chemistry and the criteria used to judge the significance of research work in our field. Shortly after that message appeared in our Fall newsletter, we were all deeply saddened to learn of the passing of Ralph "Buzz" Adams, University of Kansas, a wonderful person and scholar who contributed enormously to the current state of electroanalytical chemistry around the world.

It was Adams' pioneering work some three decades ago on using electrochemical methods to monitor neurotransmitters that paved the way for several subsequent generations of analytical chemists to become deeply involved in developing microanalytical methods (including microelectrodes), to help understand the complex chemistry that takes place in the brain. Several of the most successful current generation senior electroanalytical chemists trained in his laboratory in Lawrence, Kansas (including this year's SEAC Reilley Awardee, Rick McCreery). Many of their academic children, and others with no direct link to Adams, also pursued this avenue of research, leading to advances in micromethods for neurochemical studies far beyond the use of simple carbon electrodes (e.g., microdialysis, micro-enzyme electrodes, optical sensing, micro-sampling for mass spectrometry, etc.). These modern tools are now providing neuroscientists with important information about the real time uptake and release dynamics of neurotransmitters at the single cell (neuron) level, as well as within the brain of freely moving animals in response to various stimuli. These techniques now enable scientists at pharmaceutical companies and in academic labs to better understand how new candidate drugs, potentially useful to treat psychiatric disorders, influence brain levels of key neurotransmitters.

I stated in the Fall message that only by integrating the long-term utility and outgrowths of the research in a field over an extended time period (decades) can the real scientific impact of any given body of work be judged. In the case of Adams' work in analytical neurochemistry, judgement of its impact is easy; it has been profound! The field he pioneered is still expanding, with more and more analytical faculty, post-docs, and students engaged in research directly related to neuroscience applications. While we will all miss "Buzz", we can also be very thankful for his outstanding contributions to electroanalytical chemistry and the incredible scientific legacy that he has left behind.

PittCon 2003 is upon us, and I look forward to seeing as many SEAC members as possible at our organization's events in Orlando. Please be sure to attend our Awards Symposium on Wednesday afternoon, March 12, where I will be most pleased to present the SEAC Reilley Award to Rick McCreery and the SEAC Young Investigator Award to Julie MacPherson. Our annual SEAC membership meeting will take place at the end of the symposium (please email me if you have specific items for the agenda: mmeyerho@umich.edu). The membership meeting will be followed by our annual SEAC mixer at the Peabody Hotel. For the first time this year, four SEAC graduate student travel awardees (see details in this newsletter) will present their research via posters. Please join us at the mixer to congratulate this group of outstanding young electroanalytical chemists.

Remembering Ralph Adams

Ralph N. Adams passed away on Thanksgiving Day, 2002, at the age of 78, after a brief hospital stay for cardiopulmonary problems. He is survived by his wife of 50 years, Gini, and three daughters Lisa, Molly, and Kristin. Ralph was often referred to as “Buzz”, a nickname connected to his experience as a WWII bomber pilot in the Pacific, in both B29’s and B17’s, some of the time for air-sea rescue operations. He continued to fly and practice aerobatics in a vintage PT-26 military training aircraft until shortly before his death.



Ralph Adams stands out not only as a pioneer in electrochemistry and neurochemistry, but also as a gifted mentor to his many students and associates. He had a remarkable gift for “thinking outside the box”, leading to such innovations as carbon paste electrodes, organic electrochemistry, electrochemical detectors for liquid chromatography, and microelectrodes for monitoring neurotransmitters in-vivo, to name just a few. A remarkable trait ingrained in Buzz’s personality was his scientific integrity and respect for science itself. He had little concern for “getting credit” or for personal gain; all that counted was the importance and accuracy of the scientific findings. As noted by one of his Kansas University colleagues at his memorial service, he was never secretive about his ideas or recent results for fear of having them “stolen” by scientific competitors. Rather, he would tell

everyone everything, particularly if they were as interested as he in the topic. The free exchange of ideas within the Adams group encouraged independent thinking and innovation, and this legacy survives in his former students.

When former Adams “troops” run into each other at meetings, etc, they often talk about what rubbed off from the master during their days in Kansas. After they check around to see who is wearing socks, they usually decide that he fostered independence and taught his students a high level of respect for science. Certainly true, but the big one in my eyes is his unselfish regard for other human beings, particularly those he mentored. He had the ability, probably completely unconscious, to inspire his students to do excellent science while believing it was based on their own initiative and ideas. The ability to unselfishly inspire others to do their best while at the same time enforcing the utmost scientific respect and integrity and providing a stimulating intellectual environment is an incredibly valuable component of a mentor’s personality. And in these respects Ralph Adams was clearly a master.

Richard L. McCreery
February 2, 2003

A special issue of the scientific journal "Electroanalysis" was dedicated to HBC emeritus faculty member Ralph "Buzz" Adams (Electroanalysis 1999, No. 5) on the occasion of Dr. Adams's 75th birthday. The issue also contained an article honoring Dr. Adams' work that was written by former KU postdoctoral research associate and BAS, Inc., President Peter Kissinger.

-PittCon 2003®

-Graduate Student Travel Award Winners

the winners are:

Madhu Prakash Chatrathi, New Mexico State
University

Nathan A. Lacher, University of Kansas

Bernard S. Munge, University of Connecticut

Jennifer Thomas, University of Cincinnati

We congratulate the 2003 Award winners! The Award is toward the travel expenses of the winners of up to \$500 to attend PittCon® 2003 in Orlando and present their research. The graduate students were selected for their outstanding academic record and excellence in graduate research in the area of electroanalytical chemistry. A new component of the award this year is a poster presentation by the student awardees, of the research that they will talk about at PittCon®. For titles of the posters see the **SEAC activities schedule** below.

-SEAC activities schedule

Officers and Board of Directors Meeting, Tuesday, March 11, 2003 12:30-1:30 PM, OCCC, Room 221C. Open to current and former Board Members.

Reilley Award Symposium Wednesday, March 12, 2003 1:30 to 5:05 PM, OCCC, Room 315 AB.

General Meeting, Wednesday, March 12, 2003, OCCC, Room 315 AB, immediately following the Reilley Awards Symposium. All members and guests are invited for this brief Meeting.

SEAC reception, Wednesday, March 12, 2003 Peabody Orlando, following the Reilley Award Symposium from 5:30-7:30PM. **NEW - poster presentation** by the Graduate Student travel awardees, of the research that they will talk about at the conference.

SEAC Award Dinner - The time and place of the SEAC dinner has been changed. The original schedule had it on Wednesday night but this conflicted with the President's reception. The dinner is now scheduled for **Tuesday, 7 PM,** at Dux Restaurant in The Peabody. The cost will be approximately \$75 (includes meal, service charge and

beverages). Payment will be cash only, one bill split evenly amongst the attendees. Receipts will be available.

(The schedule for PittCon® has been provided by Greg Swain).

- **Graduate Awardees Poster Presentations** at the SEAC reception/mixer **Wednesday, March 12, 2003** Peabody Orlando, following the Reilley Award Symposium from 5:30-7:30PM.

Madhu Prakash Chatrathi "Enzymatic Assays on Microchip Capillary Electrophoresis for Bioanalytical Applications." Department of Chemistry & Biochemistry, New Mexico State University.

Nathan A. Lacher, Walter R. Vandaveer IV, R. Scott Martin, and Susan M. Lunte, "Analysis of Peptides and Peptide-Based Pharmaceuticals Using Microchip Electrophoresis Systems", Department of Pharmaceutical Chemistry, University of Kansas.

Bernard S Munge "Optimization of Electrochemical and Peroxide-driven Oxidation of styrene with ultrathin polyion films containing Cytochrome P450cam and Myoglobin", Department of Chemistry, University of Connecticut.

- SEAC 2003 brochure

You will get a chance to pick up our SEAC 2003 brochure at **PittCon® 2003 - thanks to Joe Maloy**. If you miss us there, or if you did not get the brochure by mail, here it is.

Richard L. McCreery

Richard L. McCreery of the Department of Chemistry at The Ohio State University is receiving the 2003 Charles N. Reilley Award for contributions to the areas of electroanalytical chemistry and analytical Raman spectroscopy. His research has focused on the development of spectroscopic methods for investigating the relationship between surface structure and electrochemical reactivity. Of particular interest have been carbon electrodes for which Raman spectroscopy can provide surface and bulk structural information.

His present research is focused on molecular electronics, in which modified carbon surfaces are integrated into electronic circuits. In this work, molecular monolayers are covalently attached to electrode surfaces to serve electronic functions such as memory, photoreception and switching.

Professor McCreery has received several notable awards including a Sloan Fellowship, the ACS award in Electrochemistry, an OSU Distinguished Research Award and an Ashland Chemical Research Award. He

has published 160 refereed scientific papers and, more recently, a book entitled Raman Spectroscopy for Chemical Analysis.

Rick received his B.S. degree (Chemistry) in 1970 from the University of California, Riverside, after completing three years of undergraduate research in the laboratory of Donald Sawyer. He received his Ph.D. degree (Chemistry) in 1974 under the direction of Ralph Adams at the University of Kansas, working on neurochemical applications of voltammetry. He then joined the faculty at Ohio State, where he has remained until the present day. Rick lives in Columbus with his wife, Jane, and three children, Ian, Anna, and Helen.

Julie MacPherson

Julie Macpherson, the 2003 recipient of the SEAC Young Investigator Award, has been a Royal Society University Research Fellow in the Department of Chemistry, University of Warwick, UK, since 1999 where she has held a parallel faculty position since 2000. Her Ph.D. research under the supervision of Patrick Unwin focused on the development of the scanning electrochemical microscope (SECM) and its use in the study of dissolution phenomena and heterogeneous electron transfer reactions at the microscopic level. She pioneered the development of the microjet electrode and the radial flow microring electrode.

Since taking up her research fellowship, Julie's work has focused on high resolution imaging techniques and the development of procedures for the fabrication of nanometre-sized electrodes for electrochemical imaging and dual functionality SECM-AFM probes for simultaneous topographical and electrical or electrochemical imaging.

Julie received Molecular Imaging's Scanned Probe Microscopist Award in 1999 and holds grants for her research programme in the UK from the EPSRC, the Wellcome Trust, Unilever, Syngenta and Avecia.

Previous Reilley Awardees

2002	Christian Amatore Ecole Normale Supeneure
2001	Richard P. Buck University of North Carolina
2000	Henry S. White University of Utah
1999	Janet Osteryoung North Carolina State University
1998	Larry R. Faulkner University of Texas
1997	Dennis C. Johnson Iowa State University
1996	R. Mark Wightman University of North Carolina

1995 William R. Heineman
University of Cincinnati

1994 Barry Miller
Case Western Reserve University

1993 Dennis Evans
University of Delaware

1992 Stephen Feldberg
Brookhaven National Laboratory

1991 Stanley Bruckenstein
SUNY Buffalo

1990 Jean-Michel Saveant
Universite de Paris VII

1989 Theodore Kuwana
University of Kansas

1988 Royce W. Murray
University of North Carolina

1987 Robert A. Osteryoung
SUNY Buffalo

1986 Fred C. Anson
California Institute of Technology

1985 Ralph N. Adams*
University of Kansas

1984 Allen J. Bard
University of Texas

* deceased

SEAC Officers

President: Mark Meyerhoff President-Elect: Henry S. White
Secretary: Susan M. Lunte Treasurer: Johna Leddy

SEAC Directors

1997 - 2002	1998 - 2003	1999 - 2004
Craig Bruntlett	Richard Baldwin	Andrew Gilicinski
Johna Leddy	Susan Lunte	Harry Mark
Dennis Tallman	Marc Porter	Adrian Michael

2000 - 2005	2001 - 2006	2002 - 2007
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Lou Coury Larry Bottomley Werner Kuhr
Howard Dewald Samuel Kounaves Craig Lunte
Greg Swain James Rusling Joseph T. Maloy

Committees

While each Standing Committee is chaired by a Director, any Member may volunteer to serve on any Committee except the Awards Committee at the time of membership renewal:

Awards. Chaired by Werner Kuhr, all members of this Committee are prior winners of the Reilley Award.

Activities. Greg Swain heads this committee which plans the program and SEAC social events at PITTCON.

Membership. Any Member can help Rick Baldwin in his ongoing recruiting efforts.

Nominating. Each year Harry Mark welcomes all suggestions as he prepares a slate of candidates for elective SEAC offices.

Finance. Joe Maloy needs all the help he can get in keeping SEAC solvent.

Newsletter. A "Board of Contributors" assists Editor Anna Brajter-Toth in the publication of *SEAC Communications*.

Nominations Solicited

Nominations for the Reilley Award and the SEAC Young Investigator Award may be submitted at any time, but all decisions will be based upon the materials that are available to the Awards Committee on March 1 of the prior year. Nominating letters should describe the individual's significant contributions to electroanalytical chemistry and include a recent curriculum vitae. Two or more supporting letters are required for Reilley Award nominations; one such letter is required for the Young Investigator Award. All materials will be retained and the nomination will remain active for three years. Send materials to:

Professor Werner Kuhr, Chairman
SEAC Awards Committee
Department of Chemistry
University of California - Riverside
Riverside, CA 92521

Membership Information

The Society for Electroanalytical Chemistry is a non-profit organization for scientists interested in all aspects of electroanalytical chemistry. SEAC is governed by four Officers and fifteen Directors elected from the Membership. While the Board may meet at any time, only one Annual Meeting of the Membership is held in conjunction with another major scientific meeting. SEAC currently holds its Annual Meeting at PITTCON.

SEAC is responsible for the establishment and the administration of the Charles N. Reilley Memorial Award and the SEAC Young Investigator Award. Sponsored by Bioanalytical Systems, Inc., the Reilley Award recognizes an active researcher who has made a major contribution to the theory, instrumentation, or applications of electroanalysis. The Young Investigator Award recognizes accomplishments within the first seven years of the researcher's career. This Award is sponsored by Cypress Systems, Inc.

In conjunction with the presentation of these awards, SEAC arranges an Award Symposium and Reception in honor of the Awardees at PITTCON. SEAC thereby serves as a focal point for all analytical chemists who wish to exchange ideas about electroanalytical chemistry at PITTCON.

SEAC encourages student participation in PITTCON through SEAC Graduate Student Travel Grants provided by Princeton Applied Research, CH Instruments, Gamry Instruments, and Nova Biomedical. Administered by the Awards Committee, these competitive grants reimburse the travel expenses of students who deliver presentations on their research at PITTCON.

Any individual with an interest in electroanalytical chemistry is invited to join SEAC. Regular dues are \$15.00 per year. Students of Members may be enrolled at no cost for the first year of membership. Otherwise, students and post-doctoral fellows may join for \$7.50 per year. A lifetime membership option is available for \$250.00, payable in five annual non-refundable installments of \$50.00.

If you wish to join or renew your membership, you may complete the attached application form and send it with your payment by check to the Membership Chairman at the indicated address. Dues may be paid by credit card at the SEAC web site

<http://seac.tufts.edu>

SEAC Communications, our newsletter on the World Wide Web, may also be found at this address.

-Prof. Christian Amatore elected to *the French Academy of Sciences*.



Many congratulations to Prof. Christian Amatore, Director of the Chemistry Department at the Ecole Normale Supérieure (ENS; Paris, France), who was elected as a full member to the French Academy of Sciences on November 5, 2002. The academy's history dates back to 1666. Christian is one of only 18 members in the chemistry section of the Academy.

Christian studied chemistry at the ENS and obtained his doctorate under the guidance of Jean-Michel Savéant in 1979. After a visiting professorship at Indiana University at Bloomington, he was appointed a CNRS research director at the ENS in 1984. His research interest is focused on the theoretical developments of molecular electrochemistry and the applications of microelectrodes. Christian also received the Reilly Award of the Society of Electroanalytical Chemistry in 2002. (HW).

-Congratulations to Royce Murray Oesper Award Winner.



This from the Oesper Award announcement: The 2002 Ralph and Helen Oesper Banquet and Symposium Honoring Royce W. Murray Keenan Professor of Chemistry University of North Carolina, Chapel Hill, October 25-26, 2002. Oesper Award is named for Dr. Ralph E. Oesper a professor at the University of Cincinnati. Oesper's dedication to the University of Cincinnati is reflected in his bequest to the Department of Chemistry, which was made in both his name and that of his wife, Helen Wilson Oesper and has established the annual Oesper Symposium.

Previous Recipients of the Award include: Harry B. Gray (2001), George Hammond (1999), Jerome A. Berson (1998), Rudolph A. Marcus (Nobel, 1992) 1997, Ralph N. Adams (1996), Allen J. Bard (1989). Melvin Calvin

(Nobel, 1961) was the first recipient in 1981.

We have congratulated Royce recently, but it is nice to remember his many accomplishments, as listed in the presentation of this Award: Royce W. Murray was educated at Birmingham Southern College (B.S., '57) and Northwestern University (Ph.D., analytical chemistry, '60), joined the University of North Carolina faculty in 1960 became Keenan Professor of Chemistry in 1980. He has served as Chemistry Department Chairman, as Vice Chair and as Chair of the Basic and Applied Natural Sciences Division and Chair of the Curriculum in Applied and Materials Sciences. Murray has been colleague to over 100 graduate and post-graduate students, with whom he has published about 320 papers. His contributions have been recognized with Sloan and Guggenheim Fellowships, the Carl Wagner Memorial Award and the Olin Palladium Medal (The Electrochemical Society), **the Charles N. Reilley Award (Society for Electroanalytical Chemistry)**, The Electrochemistry Group Medal of the Royal Society of Chemistry, and the American Chemical Society Fisher Award in Analytical Chemistry and Division of Analytical Chemistry Electrochemistry Award.

Murray is an elected member of National Academy of Sciences and a Fellow of the American Academy of Arts and Sciences and the American Association for the Advancement of Science. Murray is a Life Member and a Fellow of the The Electrochemical Society, Life Member and Past-President of the Society of Electroanalytical Chemistry, and a member of the American Chemical Society. He has since 1991 been Editor-in-Chief of the journal Analytical Chemistry, which is the leading journal in the discipline. He has served as a member and Co-chair of the Board of Chemical Sciences and Technology, of the National Research Council.

Murray's research interests include electroanalytical methods, the molecular design of electrode surfaces and metal clusters, electrochemically reactive semi-solid media, mass transport and electron transfer dynamics, electrocatalysis, and voltammetry in extreme media. The typical focus is the invention of measurement tools and strategies, and associated design of new molecular assemblies that give access to previously inaccessible and interesting chemical phenomena.

(Thanks to Debbie Norton for her help).

-Ted Kuwana Retires

On October 29-30, former students and colleagues of Prof. Theodore Kuwana (TK) gathered on the campus of KU for a symposium honoring TK's contribution to analytical chemistry in terms of research, education and mentoring. Over thirty participants traveled from as far away as China to pay tribute to TK and to thank him for his guidance and support during their tenure with him. Including the traveling participants, 20 colleagues from KU also participated in this gala.

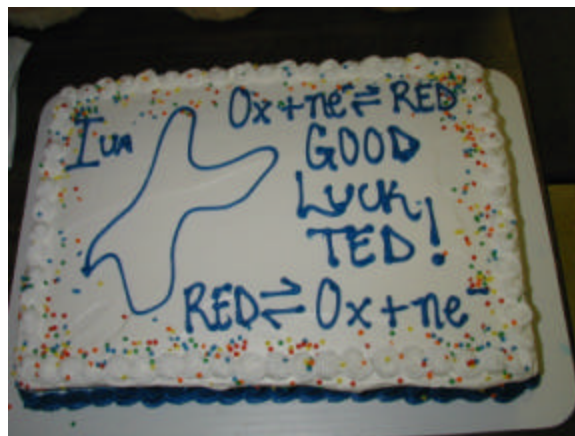
The festivities started on Friday evening, with a small gathering at Dr. Michael Weber's home, former KU Ph.D. student (1991) of TK's and a current co-worker at Cypress Systems (Lawrence, KS). On Saturday, an all day symposium was convened at Simons auditorium on West Campus. The symposium was started by a few words from the late Prof. Ralph Adams of KU, who was TK's Ph.D. mentor. TK was Prof. Adams first graduate student at KU. Symposium speakers included Profs. Fred Hawkridge (Virginia Commonwealth University), Steve Soper (Louisiana State University, KU graduate 1989), Nick Winograd (Penn State University), Marc Porter (Iowa State University), Susan Lunte (University of Kansas), Greg Swain (Michigan State University, KU graduate 1990), Jim Anderson (University of Georgia), Miles Koppang (South Dakota State University, post-doctoral associate of TK at KU, 1986) and Shaojun Dong (Changchun Institute of Applied Chemistry, China). In addition, speakers included various colleagues working in industry or government labs such as Drs. Don Leedy (P&G), Terry Hu (Dow Chemical), John Gui (GE Research & Development) and Tina Huang (NIST, KU graduate 1999).

The weekend was concluded with a dinner at TK's home Saturday evening and a Sunday brunch at the Eldridge. TK's daughter Ellen announced that a special fund was being set up the KU Endowment Association for support of graduate students in chemistry with special emphasis to those students of cultural diversity. The fund was opened with a total of \$30,000.

All of TK's students and colleagues would like to take this opportunity to thank Ted for his years of service to chemistry and to their careers. It was a joyful weekend and one that will be remembered by all of the participants for a long time. THANKS TED and good luck on your retirement.



Ted cutting the cake at his retirement party.



Electrochemistry and bakery, nice mix .



Ellen, Ted's daughter (standing) announcing the KU Fund for support of graduate students. Also pictured is Prof. Dong and late Prof. Adams and his wife.



Part of the Kuwana clan. Pictured from Left to right Prof. Marc Porter, Prof. Greg Swain, Prof. Bob Dunn, Prof. George Wilson and Prof. Steve Soper

*Special thanks to Dr. Tina Huang for supplying these pictures (SS).
(Thanks to Steve Soper for the report of the bash!)

-Summer Mini School –learn SECM from the experts

Mike Mirkin and Prof. Allen J. Bard are holding a summer school in SECM this June at the University of Texas. For the brochure for the workshop in both pdf and Word format see the SEAC homepage Web site announcement (<http://seac.tufts.edu/index.html>) under special events with a link to UT workshop website.

Spread the word to your friends and colleagues about the opportunity to learn a new method from the experts.

-SEAC welcomes New Members

(Thanks to Cynthia Beall and Sue Lunte)

Stacy Arnett

University of Kansas, Lawrence, KS

Damon Osbourne

University of Kansas, Lawrence, KS

Madhu Prakash Chatrathi

New Mexico State University, Las Cruces, NM

Abdel-Nasser Kawde

New Mexico State University, Las Cruces, NM

Alice Hooper
Virginia Tech, Blacksburg, VA
Stephanie Hooper
Virginia Tech, Blacksburg, VA
Kevin Hathcock
Columbian Chemical Company, Marietta, GA
Bernard Munge
University of Connecticut, Storrs, CT
Chun-Hsien Chen
National Tsing Hua University, Hsinchu, Taiwan ROC
Xiangqun Zeng
Oakland University, Rochester, MI

-SEAC pool - and advertising of what we do

Can we expand the SEAC member pool?

Some SEAC members have raised a concern that “the field is real nanoscopic these days, far smaller than in 1970 and shrinking even more.... It is so inexpensive to join you'd think more would do so.”

One suggestion was to advertise more and better all the science SEAC represents (“learn from Coke, Pepsi, Nike,..... repetition is key!!!!”). For a start, following this suggestion, a new *Join SEAC* logo appears in this issue, with a list of the science areas- ***sensors - materials science- transition metal redox chemistry - bioelectrochemistry - teaching***. Can we increase the number of members from practitioners in all of these areas?

What do you think?

A final thought- PittCon has always showcased SEAC. Since the Reilley Award Symposium and SEAC were started in 1984 many new symposia have appeared at PittCon and have supplemented the awards symposia that include the Reilley Symposium. Could we get more members from other Symposia??

Membership Information is included in the SEAC brochure and is distributed at the Reilley Award Symposium. The brochure is included in this issue for you to check out (thanks to Joe Maloy for the brochure and all other help).

-SEAC Members in the News-

-What are the SEACERs doing?

-The Nanocorner

Chuck Martin's group and coworkers from VTT Biotechnology in Finland report the use of template synthesized silica antibody-coated nanotube membranes for chiral separations (Science 296, 2198 (0022)). This report has attracted attention in a cover story in C& E News (December 16, 2002) on major recent science of nanomaterials and in Anal. Chem. 74, 454A, 2002. Martin is credited for the development of the template method, for allowing fabrication of "nanotubes composed of any material".

-The Biocorner

Mark Wightman's lab has reported a new method for the investigation of active transport of dopamine in single cells. The method is expected to allow examination of "cell-to cell variation." Wightman's group developed the new method to measure cell transport by combining the idea of "small volumes and microsensors" by performing the experiments in 150 pL vial using a disk shaped 3 μm sensor. (AC 74, 5370- 5375, 2002 and 74, 566A, 2002).

Recent work of **Adam Heller's** group addresses an important practical question- lack of power sources that can be coimplanted with the existing implantable biosensors (C& E News January 20, 2003). At present batteries used for the implantable biosensors are "overwhelmingly larger" than the device itself and are worn in an external package on the skin. Heller's work points to possible solution based on recent advances in biofuel research (J. Am Chem. Soc. 124, 12962, 2002). Heller's biofuel cell has novel features - it does not use membranes to separate the fuel (glucose, from patient's body) from oxygen. The membrane-less feature has been noted in Nat. Mater. 1, 211, 2002. Another report of membrane-less fuel cell is a product of microfabrication technology based on soft lithography pioneered in **George Whiteside's** group at Harvard. In this fuel cell low flow rates and high viscosity of the oxidizing and reducing fluids result in limited mixing, eliminating the need for a membrane (J. Am. Chem. Soc. 124, 12930, 2002 and C& E News November 4, 2002).

-All Those Defects are of interest to many in this community and diffusion is our bread. When the two get together in a new way, they can contribute to new effects. A new diffusion mechanism has been discovered, which shows that imperfections on crystal surfaces are quite mobile (Science 299, 377, 2003 and C& E News January 20, 2003).

-David L. Allara and Ralph G. Nuzzo

Nuzzo and Allara have received the 2003 Arthur W. Adamson Award administered by the ACS for Distinguished Service in the Advancement of Surface Chemistry. It is not long since Nuzzo and Allara reported on the organized spontaneous self-assembly of alkanethiol molecular layers (SAMs) on gold, in their original JACs paper following experiments at Bell Labs in the 1980's. An enormous area of molecular surface science has grown since then, since the work pioneered a totally new, molecular, way of thinking about surfaces and interfaces. This community recognized the importance of the results immediately and exploited SAMs in the fundamental investigations of interfacial electron transfer. Now SAMs are widely used in the investigations of nanomaterials. The surfaces and SAMs are catching up in their molecular dimensions!

Ralph G. Nuzzo is now a professor of chemistry and of materials science at the University of Illinois at Urbana- Champaign where he moved in 1991 and David L. Allara is now a professor of chemistry and of materials science at Pennsylvania State University (C& E News January 8, 2003).

-Gerry Richmond

Geraldine M. Richmond, Richard M. and Patricia H. Noyes Distinguished Professor of Chemistry at the University of Oregon, Eugene, was presented with the Award in Spectrochemical Analysis of the ACS Division of Analytical Chemistry at the ACS meeting in Boston in August. Gerry is known to this community for her investigations of structure and molecular interactions at interfaces. Gerry got her Ph.D. from Berkeley in 1980, taught at Bryn Mawr College, and has been at Oregon since 1980. Gerry is also known for her mentoring activities and her involvement in the ACS. Congratulations Gerry!

!

-In Other News

-At a recent meeting dear to the heart of this community the late Prof. Ralph (Buzz) Adams was honored. In other developments- a controversy was stirred by a statement that "...there have been no commercially important novel developments in electroanalytical chemistry since 1975. Everything since then has basically been evolution of old ideas.... and for analytical purposes electrochemistry has slipped badly in relative importance to other approaches. Biosensors: useless so far except for

glucose....” As usual for this gathering, this was all for a bunch of fun, to get people thinking.

-Your help may be needed. This from C. B. Storm, Director, Gordon Research Conferences (GRC)
Subject: Future Scheduling of the Electrochemistry GRC

The decision of the Executive Committee is that GRC will not schedule the Electrochemistry Conference for further meetings. The leadership of the Conference has been invited to submit an application for reinstatement, which will be refereed for both scientific content and future management considerations. If you have any comments or concerns please feel free to contact.

Carlyle B. Storm, Director

Carlyle B. Storm, Director , Gordon Research Conferences, P.O. Box 984 W. Kingston, RI 02892-0984; 401-783-4011, ex. 107, phone 401-783-7644, fax cbstorm@grc.org .
(if you need to get more information contact Mike Spitler the 2003 chair of the Electrochemistry GRC).

You may already know.... The Electrochemical Society launched its most significant fundraising campaign ever in 2002, and the Centennial Campaign has raised well over \$400,000 or 7% of the \$6,500,000 goal. Over thirty members and organizations have contributed \$1,000 or more to the campaign. In addition, seventy additional members have made significant annual contributions, and three more members have named ECS in their will. The Finance Committee and Board of Directors will determine how best to invest the \$400,000+ already raised, based on the Case for Support. For example:

- * \$20,000 to fund additional topics identified by the New Technology Subcommittee
- * \$14,000 for improvements to the ECS short course program
- * \$22,500 for archival of two years of The Journal of The Electrochemical Society
- * \$15,000 for increased industrial benefits for ECS partners
- * \$57,500 for international satellite meetings
- * \$10,000 for increased student participation
- * \$100,000 for the Publications Endowment to support and further develop rapid, dynamic, and interactive journals
- * \$125,000 for a new post-doctoral fellowship in industrial electrochemistry
- * \$65,000 for the Charles Tobias Young Investigator Award

The Centennial Campaign is a five-year campaign. The 2003 drive will end April 1st. For more information visit the ECS website <<http://www.electrochem.org/>>.

A new Journal: I am writing to introduce the new 'free to access' Journal of Nanobiotechnology (<http://www.jnanobiotechnology.com/>). This new peer-reviewed journal will publish original papers and reviews describing significant discoveries, scientific advances, new technologies and instrumentation in the fields of medical and

biological nanoscale sciences. It is published online by BioMed Central, who can also provide traditional reprints. Articles published in the Journal of Nanobiotechnology will be indexed in PubMed with full texts archived by PubMed Central. Instructions at: <http://www.jnanobiotechnology.com/info/instructions/default.asp>. Information about BioMed Central, its copyright and license policies is available at: <http://www.biomedcentral.com/info>.
mikhail.soloviev(at)ogs.co.uk, Editor in Chief, ISSN 1477-315

- Meetings... Meetings... Meetings

5th INTERNATIONAL SYMPOSIUM ON NEW MATERIALS FOR ELECTROCHEMICAL SYSTEMS (MONTREAL, CANADA, JULY 6-11, 2003)

The meeting aims to foster new ideas to support the improvement and the commercialization of New Electrochemical Energy System Technologies like Fuel Cells and Modern Battery Systems (Materials for Electrochemical Systems and/or Efficient Energy Systems for Sustainable Development; in conjunction with the Journal of New Materials for Electrochemical Systems).

14th INTERNATIONAL CONFERENCE ON SOLID STATE IONICS (SSI-14), sponsored by the International Society for Solid State Ionics with organizational support and assistance from The Electrochemical Society. The conference is scheduled to meet in Asilomar Conference Center in Monterey, California, USA on June 22-27, 2003. The theme of the conference will be "Materials for Energy Conversion and Environment".

-JOBS

Subject: Job Openings in Nano-Biotech. From Fred Tepper Argonide Corp, 407-322-2500.

We are a Sanford (Orlando) FL company that manufactures and distributes nano materials. Over the past few years we have developed a filter capable of removing virus, bacteria and DNA out of water and other fluids at high flow rates and are about to sell lab size discs of such filters. Their primary application is in purifying drinking water although they have several biotech applications including their potential for separating proteins. In addition we have several SBIR contracts (with NASA and EPA) to develop and extend such filter technology. We also expect to get funding related to collection of aerosolized BW agents. We intend to hire a materials scientist with an interest in nano materials or filter development. We are also seeking a microbiologist to do advanced R and D on pathogen collection. Do you know of potential candidates for such positions? If so, please send them our way. Thanks

Announcements and Jobs- Remember to check:

"SEAC NEWS" for announcements on the SEAC home page at:
<http://seac.tufts.edu/index.html>

For job announcements check the separate "Employment" page at:
<http://seac.tufts.edu/employment.html>

- ON THE MOVE

From Eiichi Shoji <shoji(at)caltech.edu>
Dear Anna,

I got my Associate Professor position in Japan last June. Since I was so busy, I could not notify you of my new address. Would you update my e-mail address for SEAC? The new one is "shoji@chem.his.fukui-u.ac.jp". My e-mail address at Caltech will be expired soon. The name of the university is Fukui University. I am looking forward to seeing you again.

Sincerely,
Eiichi
Dept. Human and Artificial Intelligent Systems
Fukui University
3-9-1 Bunkyo, Fukui 910-8507
JAPAN
Voice:+81(776)27-8076 Fax:+81(776)27-8420
E-mail: shoji(at)chem.his.fukui-u.ac.jp

-e- mail - you wrote

Get well Dick – *I heard from Dick Buck who is not well and regrets that he will not be able to attend PittCon this year. Dick may appreciate hearing from you....*

Dear Anna B-T.,
It seems that I am bed-ridden on account of an incurable disease. Otherwise I would be there.
Sincerely, RPBUCK
Richard P. Buck
NC (office) 919-962-2304 NC (home) 919-929-2706 CA: 650-322-7013

DENNIS C JOHNSON retires: *Dennis wrote:*
Anna:

I am now fully retired from science and busy pursuing a new life. Therefore, I'm dropping all memberships in scientific organizations. Sounds radical doesn't it?

Dennis Johnson

I responded and Dennis wrote back:

Anna:

Please keep me on the mailing list. I am bucking tradition by demonstrating that there is life outside of chemistry. I feel sorry for all the other folk.

Dennis

This from Debra Rolison:

Hi, Anna: I didn't make the GRC this year (nor will I be at Pittcon or the ECS meeting in Paris in May -- I'm trying to cut back on my prof. soc. meetings because I have so many invitations to present my "uppity woman" talk recommending that we Title IX American universities for their inability to hire female faculty into S&E departments commensurate with their production numbers.

If your next issue comes out ca. mid-March (*actually it is late February so Debra did not get a chance to get back to us before we went to press*), I'll send you the program for my session on Energy as part of the week-long ACS symposium on Nanotech and the Environment in New Orleans in late March.

I also have a new postdoctoral fellow, so we'll send you a SEAC on the Move item. more cold and snow expected here. a real winter!

best,

Debra

*The dues payments reminder generated some responses. **This one from Dick Crooks:***

Hi Anna. I was able to find the dues site, but I am not able to submit my dues- the site generates an error. Apparently I am alone with this problem, because Sam has told me others have been successful since my failure. He is looking into the problem, which apparently is related to my combination of software.

Dick

I responded: I had put my head in a bucket already for generating a typo in the URL (*thanks to all of you who corrected me!*). There are other ways to pay the SEAC dues. Would you like me to let you know about them?

ABT

Hi Anna. I'll just wait until Sam figures out what's wrong with the site. Alternatively I can pay them using a PC rather than my Mac (apparently the site works fine with PCs). Thanks for offering though.

Dick

"name the seac website"- continues...

From Johna Leddy

Dear A:

Another website suggestion from Herb Silverman.

Hope all is well- here the animals have escaped from the cages so we

Have exceeded the state of a zoon. Hope it is better on your end.

Take care,

J

From Herbert Silverman

Subject: SEAC Web site name

If it is not too late I suggest SEAC.

Herb

*Look for more in the future issues of the
Newsletter. To join SEAC check:*

<http://seac.tufts.edu/membership.html>