SEAC*communications*

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LETTER FROM THE PRESIDENT

Congratulations to Charles Martin on winning the C.N. Reilley Award this year. Henry White has planned an exciting symposium on electrochemistry and nanotechnology. Speakers include George Whitesides, Reginald Penner, Weihong Tan and Henry White. The SEAC Reception and Reilley Award dinner will take place at the Phoenix Restaurant on Tuesday Evening. Please plan to attend to meet with electrochemical colleagues and congratulate Chuck! Due to the cold weather and long distances between sites in Chicago, bus transportation will be provided from the convention center to the reception and dinner. Transportation will also be available for the return trip.

I also want to congratulate our new SEAC board members Shelley Minteer, Jon Kirchoff and Philippe Buhlmann. We had a lot of good candidates for board members this year. Special thanks to our retiring board members, Leonidas Bachas, Jon Howell and Bill LaCourse. All three have made significant contributions to the society and I appreciate their efforts. In particular, I appreciate Jon Howell's service as both a board member and secretary. He is a huge resource for SEAC and has donated a lot of time to the organization over the past five years. I think we all owe Jon a thank you for his service. Bill LaCourse was the entertainment chair this year and organized the reception, dinner and board meetings.

There is still time to nominate someone for the C.N. Reilley and SEAC Young Investigator Awards. Please thing about colleagues that might be eligible. The applications are due March 1. Information regarding travel grants for students to Pittcon (Revised due date: February 6th) is also included in this newsletter. Finally, if you have not paid your dues, there is still time! Remember also that student members can join for free in their first year. If you have some new students in your research group, please encourage them to join.

See you in Chicago! - Sue

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SEAC AT PITTCON

REILLEY RECEPTION AND AWARD DINNER

The **Reception** for Reilley Awardee Charles Martin will be held on Tuesday, March 10 from 5:30 to 7:00 p.m. at the Phoenix Restaurant, 2131 S Archer Ave., Chicago, IL. The reception is open to all, and reservations are not necessary. Hors d'oeuvres will be provided with a cash bar. The **Reilley Award dinner** in honor of Prof. Charles Martin will be held immediately following the SEAC Reception at the Phoenix Restaurant, 2131 S Archer Ave., Chicago, IL, Tuesday evening, March 10, 2007, 7 – 9:30 p.m. The dinner is open to members and guests, but advance reservations are required. For reservations, please contact SEAC Activities Chair, William LaCourse of the University Maryland by 5 pm February 20 by telephone (410-455-2105); or electronic mail lacourse(at)umbc.edu. Dinner is self-pay. **Reception/Dinner transportation** will be provided as follows:

- 5:00 / McCormick Place to Phoenix Restaurant/ return to
- 5:30 / McCormick Place to Phoenix Restaurant/ wait
- 9:30 / Drop at Several Hotels Downtown to clear by 10:30

ANNUAL SEAC MEMBERSHIP MEETING

The annual meeting of the Society is Wednesday afternoon immediately following the Reilley Award symposium and in the same room (~4:50, Room S401A). Please plan to stay for this brief business meeting that is required of all tax-exempt organizations. Prospective members and guests are welcome to attend the business meeting

BOARD OF DIRECTORS MEETING

The annual Board of Directors meeting will be held Tuesday 12:00 to 1:30 in, Room W192B. The meeting is open to current and former Board Members, Officers and Committee Members. If any Member has concerns or suggestions for the Society, please contact SEAC President Susan Lunte, so they may be addressed during the Board Meeting. A light meal will be served during this working lunch session. If you plan to attend, please contact William LaCourse by 5 pm February 20, for your reservation.

ELECTROCHEMISTRY AT PITTCON

Among the opportunities to see what everyone has been up to in their laboratories are:

Mon AM	S504A	Electrochemistry – Materials and Particles I
Mon AM	S501BC	Electrochemical Monitoring of Neuroactive Compounds
Mon AM	S404D	Young Investigators in Bioanalytical Chemistry
Mon AM	EXPO	Nanotechnology (posters)
Mon AM	EXPO	Nanotechnology – Nanomaterials Characterization (posters)
Mon PM	S503B	Electrochemistry – Materials and Particles II
Tues AM	S501A	**SEAC Organized Session**
Tues AM	S502A	Electrochemical Detection of Bioactive Analytes
Tues PM	EXPO	**SEAC Poster Session**
Tues PM	S402A	Advances in Electrochemical Materials
Tues PM	S502B	Neuroendocrine Investigations I
Tues PM	S504BC	Electrochemical Detection on Microchips
Tues PM	S405A	Analytical Diagnostics of Diesease from Cllular Signals
Wed AM	S501D	ACS Division of Analytical Chemistry: New Concepts and Instruments for Electrochemical Sensors
Wed AM	S503A	Neuroendocrine Investigations II
Wed AM	S503A	Electroanalytical Chemistry
Wed AM	EXPO	Electrochemical Bioanalysis and Sensors (posters)
Wed PM	S401D	*in vivo* Monitoring with Improved Speed and Spatial Resolution
Wed PM	S401A	**Charles N Reilley Award Symposium**
Wed PM	S504A	Electrochemistry – Detectors and Sensors
Thur AM	S503A	Biosensors I – Electrochemical Biosensors

ELECTION RESULTS

The results are in!! We have three new members of the Board of Directors - Shelley Minteer of St. Louis University, Jon Kirchhoff of University of Kentucky, and Philippe Buhlmann of University of Minnesota

will be joining the Board effective July 1. Thank you to all of the candidates – it was a close election once again.

Members who will be rotating off of the Board are Leonidas Bachas, Jon Howell, and William LaCourse. A warm thank you to these members for their service over the last five years.

DUES REMINDER

Payments for 2009 yearly SEAC membership were due January 1, 2009. If the date slipped by you during the holidays, the SEAC web site at http://www.electroanalytical.org/membership.html provides a mechanism for online payment. Lifetime Membership is also an option-check out the guidelines while you are there.

AWARD NOMINATIONS - DEADLINES FAST APPROACHING!! STUDENT TRAVEL AWARDS – DEADLINE EXTENDED UNTIL FEBRUARY 6th

CHARLES N. REILLEY AWARD

The *Charles N. Reilley Award in Electroanalytical Chemistry* is given in memory of one of the most distinguished analytical chemists of the 20th century. Reilley's interests were both fundamental and broad; he made seminal contributions not only to electroanalysis, but also optical spectroscopy, NMR, chromatography, data analysis, instrumentation, and surface analysis. The signature of his research was to decline empiricism, seeking a basic understanding of measurements and detection schemes. Reilley recognized that measuring things is at the heart of modern chemistry. Reilley is central in the history of the Society for Electroanalytical Chemistry, which was formed following his death in 1981, as a vehicle for managing the award. A biography of Charles N. Reilley, by Royce Murray, is available at: http://newton.nap.edu/html/biomems/creilley.pdf

Nominations for the Reilley Award should include a letter of nomination describing the individual's significant contributions to electroanalytical chemistry, at least two seconding letters of support, and a curriculum vita for the individual. All nomination materials will be retained by SEAC. Once nominated, any individual will be considered for the Reilley Award for three years without being renominated. The submission of any additional supporting information or a renomination is welcome at any time. However, **the decision for the 2010 Award will be based upon the material that is available to the Award Committee by the 1st of March 2009.**

SEAC YOUNG INVESTIGATOR AWARD

For the *SEAC Young Investigator Award*, sponsored by Cypress Systems, nominees must be within seven years of obtaining their Ph.D. or other terminal degree at the time of nomination. Candidates may be nominated by any member of SEAC. Nominations should include a letter describing the individual's promise in the area of electroanalytical chemistry, at least one seconding letter of support, and curriculum vitae for the individual. All nomination materials will be retained by SEAC. Candidates for the YI Award must be renominated each year during their period of eligibility. **Nominations for the 2010 YI award are due by the 1st of March 2009**.

SEAC STUDENT TRAVEL AWARDS

The SEAC Graduate Student Travel Grant, sponsored by Eco Chemie, Princeton Applied Research, CH Instruments, and Gamry Instruments, is awarded to promising graduate students to offset the cost of travel to the Pittsburgh Conference to deliver an oral presentation in a Conference symposium. The presentation should be on a topic related to their Dissertation or Thesis, and in some area or application of electroanalytical chemistry. Because the costs in various venues of the Conference may vary, the amount of the award will be determined by SEAC and will be between $250 and $500. The value of all of the awards in any one year will be equivalent, but it may vary from year to year. The award will not exceed the reasonable cost of advance-purchase economy airfare and reasonable expenses for lodging, nor the awardee's actual expenses. In order to spread the travel money as equitably as possible, not more than two awardees will be selected from any one research group and no more than three awards will be made to students from any one educational institution. **Nominations for travel grants are due to the SEAC awards committee chair by February 6th.** The nomination shall consist of the student's current graduate transcript, a copy of the abstract submitted to the Pittsburgh Conference, a complete resume including publication list, and a letter of recommendation from the student's research advisor. The advisor's letter should include a statement of approximate graduation date and a short description of the student's speaking ability. A candidate shall be considered for an award for travel to Pittcon meetings occurring up to one year after the student's Ph.D. defense. Previous awardees will not be eligible for further consideration. Nomination materials should be sent to Bill Heineman at *heinemwr(at)uc.edu*

MEMBERSHIP DIRECTORY

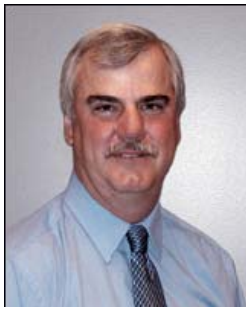
It has been many years since a SEAC membership directory was distributed. We plan to e-mail a pdf directory to the membership before Pittcon. For this directory to be of maximum value, we need to have current contact information.

MEMBER NEWS

CONGRATULATIONS TO ALBERT FRY

Al writes that he received the Electrochemical Society's Manuel Baizer Award in Organic Electrochemistry at the ECS meeting in Phoenix in May, and was elected a Fellow of the Society at the October meeting in Honolulu.

…TO CRAIG LUNTE



Dr. Craig Lunte is the 2008 recipient of the American Association of Pharmaceutical Scientists (AAPS) Research Achievement Award in Analysis and Pharmaceutical Quality. He received his award at the 2008 AAPS Annual Meeting and Exposition, November 16-20, 2008, at the Georgia World Congress Center in Atlanta, GA for his sustained record of high quality, high-impact work in analytical chemistry and pharmaceutical research.

…AND TO PETR ZUMAN

In June, at the occasion of 10th meeting of the European Society of Electroanalytical Chemistry in Prague (of which he was the Honorary Chairman), Petr received the Wichterle Award. The Award is given to Czech chemists living abroad, who contributed to the progress of chemistry, and is named for the Czech chemist who invented soft lenses. In Petr's case, the award is in recognition of his contributions to analytical and physical chemistry. Petr is currently a Distinguished Emeritus Research Professor at Clarkson University and is still actively involved in research demonstrating the use of the dropping

mercury electrode in investigations of both electrode processes and chemical reactions of organic compounds. Over his career, he has published more than 440 research papers and 15 books; but he says his greatest joy comes from the achievements of his past students, like Jiri Janata (Georgia Tech) or Jim Rusling (U. Conn).

OTHER EXCITING NEWS ITEMS

Petr Vanysek has been re-elected as Regional Representative of USA for the International Society of Electrochemistry. He will now serve through 2011.

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And, on a non-scientific note -- **Alan Bond** (our Regional Editor reporting on doings from Down Under) reports that he is currently in the UK on leave as a grandparent to a newly arrived granddaughter. Congratulations, Alan!!

Charles Wilkins - mass spec guru, frequent collaborator of SEACers, and husband of Ingrid Frisch - was feted on the occasion of his 70th birthday with a symposium held at University of Arkansas last September. Charlie was joined by a multitude of friends, colleagues, and present and former students. Shown below are Ingrid and Charlie with some of those who joined them for the celebration.

Back Row (left to right) Sasa Miladinovic, Dr. Sabine Borgmann, Dr. Jeffrey Jones, Matthias Knust, Dr. Salvadore Pastor, Cameron Dory, Dr. Robert Brown, Dr. David Weil, Joseph Smeal. Front Row (left to right) Feng Chen, Coy Batoy, Evgenia Akhametova, Charles Wilkins,, Tania Sasaki, Lydia Nuwaysir.

Speakers included: Back Row (left to right) - Jackson O. Lay , Micheal L. Gross, Jesse (Jack) Beauchamp, Robert Brown . Front Row (left to right) - Ingrid Fritsch,Catherine Fenselau, Charles Wilkins, Cathy Costello, Lydia Nuwaysir. Other Speakers (not shown) – Robert White, Richard Caprioli

ON THE MOVE

Dr. Radha Pyati has assumed a position as Director of the Environmental Center at University of North Florida in Jacksonville.

Bo Zhang is now ensconced in his position as an Assistant Professor at the University of Washington.

Frank Schultz writes: I retired in June 2007 and moved to central Oregon (about 30 miles south of Bend), which we enjoy tremendously (4200-foot elevation at the high desert/forest interface). I have Emeritus status at IUPUI, and remain active in science through reviewing tasks for various journals and

funding agencies and a collaboration with Mookie Baik at IU in Bloomington. The latter activity takes me back to Indiana twice a year. All the best – Frank

REPORTS FROM RECENT MEETINGS

EASTERN ANALYTICAL SYMPOSIUM

After a lapse of several years, a program focused on electroanalytical has returned to the Symposium. At the November 17-21, 208 meeting, an invited symposium entitled Electrochemical Sensors and Sensing, as well as a contributed session and posters appeared on the program. The invited Symposium included presentations by Mira Josowicz, James Rusling, James Burgess, Shelley Minteer, Adrian Michael, and Samuel Mwilu (from Omouwunmi Sadik's laboratory).

The organizers were pleased with the response and plan to include electrochemistry programming again next year. Confirmed speakers for the invited session for November, 2009, include Amemiya Shigeru, Omouwunmi Sadik, Sang Bok Lee, and Sam Kounaves.

PITHY REMARKS FROM OUR OWN PETE KISSINGER

Pete writes: A TV producer with a child starting at Purdue asked me for advice to give her son after I was interviewed on a news program. I replied with the following: "Tell the young man that 'Television is to the mind as termites are to wood' and he'll be OK." The same advice works for the elderly electrochemist who should read books, quality newspapers and magazines, write letters, join clubs, water plants, feed birds, take long walks and short naps. -- The Curmudgeon

Pete recently published the following opinion piece, which appeared in the December 2008 issue of *Drug Discovery News (DDN)*:

Having been through several recessions and mentored generations of newly minted B.S. and Ph.D. chemists, I am very familiar with the anxieties of today. Employment opportunities begin to look scarce in the face of many announced layoffs and the closing of R/D centers. Pharmas are announcing they are no longer interested in pursuing certain therapeutic areas, an admission of low R/D productivity vs. society expectations. This can also suggest that existing therapy is perceived to be good enough or that competitor pipelines look nice from across the fence. Pfizer, Wyeth and BMS have all declared major reductions in the therapeutic areas they consider to be of interest to their discovery R/D. We also read that all the systems biology "-omics" technologies graduate students, postdocs and instrument companies have been pursuing may "represent the culmination of all delusions" (Adriano Henney and Giulio Superti-Furga, Nature 455 (9), October 2008, p.730-731). These authors argue that the promise is still there, but the work has not been well organized with appropriate standards. They recommend a community effort to reduce the chaos. The new tools of research show much promise, but we are now moved off the hype phase into the hard slog of analytical and biological validation. Words like systems biology, proteomics, metabolomics and biomarkers are not aging gracefully, but this is normal for disruptive technologies like electricity (AC or DC?) and the Panama Canal (sea level vs. locks?).

I've been a part time faculty member at Purdue University for decades and the anxiety of our students is palpable in the present climate. They ask, "What am I to do?" When we apply generalizations to individuals, we are asking for trouble, but my long answer goes like this: "Consider a post doc or graduate school right now and compete for a slot. What is important is catching the wave 2-6 years from now when you finish, not when you start." Recessions do increase the pool of applicants to grad school

and this is not a bad thing for those with a long view. We sure will need talent to tackle the global challenges of today. But don't expect a lifetime of security. Prepare for flexibility. Combine depth with breadth. Both bad and good luck happen regardless of your plan. I suspect the pharma announcements mentioned above will suggest a tough time for young scientists who've already joined an effort that has now been cancelled. They too will have to scramble with little seniority and may well be furloughed.

There are jobs available right now, but they may not be in the place or the field to fit your original dreams. There is plenty of churn between large and small firms. There are good opportunities in government laboratories, contract research firms and in teaching K-16 science. As universities build infrastructure for more centers and institutes, you will find more professional positions in academia which are not tenure track, but support the research of traditional research groups. Good examples are out there in NMR, MS, molecular imaging, cell culture, laboratory animals, X-Ray structure, peptide and oligo synthesis and the like.

It may well be prudent to think about a smaller older house. The current problems no doubt have come from avoiding "delayed gratification," also known as "I want it and I want it now and I'm borrowing money to get it". We older conservatives have been leery all along, but let's not look back, let's look ahead. I now share with you an abstract for a talk I've given in the past month at several colleges and universities.

"A new life science eco system involving academic research, contract research companies, start-up discovery companies and traditional pharma/biotech."

Twenty years ago life in big pharma was genteel and secure. Today it is neither. Vertical integration in life science businesses is to a large degree a historical concept. It has been replaced by a dynamic global set of associations that reconfigures frequently. This has increased the opportunities for those with a sense of adventure, while limiting traditional concepts of security such as lifetime employment and defined benefit retirement plans. Every technical worker now must think in a new entrepreneurial way and develop skills that are flexible to accommodate rapid changes in direction. Working across wide geographic boundaries and cultures is common. Communications skills, while always important, are now much more so, given that many activities are dispersed. Society is disappointed in the productivity of medical research and thus we hear terms like the *critical path*, *bench to bedside*, *translational medicine*, and *the valley of death* between discovery and the clinic. There are many opportunities for entrepreneurship and solving these problems. Society is expecting great things from us.

Scientists today must first of all be adaptable and not married to any hypothesis, instrument or job description. It's up to us to keep learning outside of our immediate comfort zone. I've often run into mid-career academics feeling a bit down because their area of work went out of fashion and funding dried up. I'd always *think* and even now and *then say*: "Throw those old instruments away, change direction, sit in on some classes, go to some seminars, use your imagination and get into gear." Smart people say things like: "Success is never final" (Winston Churchill) or sing things like: "So take a deep breath, pick yourself up, dust yourself off, and start all over again" (Frank Sinatra). Given the season "It's not whether you get knocked down, it's whether you get up." (Vince Lombardi). I've personally been knocked down pretty hard several times and even have felt sorry for myself from time to time, just like Churchill, Sinatra and Lombardi. I'm now "doing" two very novel startup companies and experimenting with journalism here in DDN. Times are tough. I'll write for food just as Churchill did.

There are always good career opportunities for the best and the only way to be the best is to get to work and not wait for miracles. Make it happen. If you end up for awhile as the Ph.D. driving a taxi, enjoy the ride and you will meet interesting people. Getting down on yourself brings you down. Don't do it my friends.

UPCOMING MEETINGS

The **5th KURT SCHWABE SYMPOSIUM in ELECTROCHEMISTRY** will be held at the University of Erlangen-Nürnberg, Erlangen, Germany, MAY 24-28, 2009**.** The topic of this year's symposium is "Corrosion, Semiconductors, Solar Cells" More details can be found at **http://www.kscs2009.uni-erlangen.de/**

2009 ECHEMS meeting, the fifth in its series, will be held June 7 - 10, in Weingarten/Germany (http://www.echem.uni-tuebingen.de/echems5). The ECHEMS meetings are a continuation of the former Sandbjerg meetings on Organic Electrochemistry and the EUCHEM Conferences on Organic and Organometallic Electrochemistry. The main scientific purpose of the ECHEMS meetings is to show the overlap between electrochemistry and other research areas of current interest. Each meeting has its own topic, which in 2009 will be `Functional Molecules and Materials'. The five subareas are electrochemical synthesis, electroanalytical chemistry, polymers/materials, non-conventional environments, applications.

The **ACS Central Regional Meeting** May 20-23, 2009 in Cleveland, OH, will include several sessions focusing on electrochemistry, including a symposium on "Women in Electrochemistry." More details will be included in the next edition of the Newsletter.

"International Symposium on Electrochemistry for Energy Conversion and Storage", August 22 to 25, 2009 at Three Gorges, one of the ten natural wonders of China. Topics will focus on the fundamental and applied aspects of energy conversion and storage using fuel cells, batteries and electrochemical capacitors. The deadline for abstract submission is March 15, 2009. For more information and registration, please visit either www.3gorges2009.cn or www.electrochem.whu.edu.cn/3gorges2009

The **Eastern Analytical Symposium,** to be held November 16-19, 2009, will once again include electroanalytical topics. Details about the symposium and important deadlines can be found at http://www.eas.org/

JOB OPPORTUNITIES

ELECTROCHEMICAL INSTRUMENTATION DESIGNER (GAMRY INSTRUMENTS)

PhD or MS in chemistry or related field with a concentration in electrochemistry (4+ years experience). The ideal candidate is an electrochemist or instrumentation chemist with a background in electronics and instrument design. This position calls for an outgoing person who enjoys interacting with colleagues at the highest level. You must be willing to learn about all applications of electrochemistry. A strong ability in instrument and software design is very important. You must be willing to keep up with constantly changing electronics technologies. A passion for problem solving is critical. Above all, you must be obsessed with making the best instrumentation possible. Salary will be commensurate with experience and education. More details can be found in the jobs section of the SEAC Website http://www.electroanalytical.org/employment.html and resumes should be sent by email to employment(at)gamry.com

ELECTROCHEMISTRY/NANOBIOSENSOR POST-DOCTORAL OPPORTUNITY (TEMPLE UNIVERSITY)

Opportunity to develop and use Nanoscale Carbon Electrodes for Intracellular Electrochemistry as part of a collaboration with groups in Penn Engineering, Drexel Engineering and Temple University's medical school as reported at http://www.sciencedaily.com/releases/2008/01/080115164626.htm Candidate should have significant electrochemistry experience. Expertise in the following areas would be useful; microelectrodes, voltammetry, surface modification, metal deposition, sensors, electrochemistry, carbon materials, microscopy [Scanning Electrochemical Microscopy (SECM), Scanning Electron Microscopy (SEM), Atomic Force Microscopy (AFM) and Scanning Tunneling Microscopy (STM)]. More information may be found on the SEAC website at http://www.electroanalytical.org/employment.html. Applications should be addressed to:

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