

SEAC *communications*

Volume 26, Number 3, August 2010

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PRESIDENT'S LETTER

Today, big pharmaceutical companies face a number of challenges such as expiring patents and few new blockbuster drugs in the pipeline, resulting in greatly reduced spending for R&D. Many research facilities have been closed and the companies are turning to partner companies to generate new products. Many of these problems are the result of generic drug companies that piggyback on the research of the original name brand drug –some of which may have cost up to a billion dollars to develop, test, patent and bring to market. Similar to my own experience, some of you may have served, or been asked to serve, as an expert witness for big pharma or a generic drug company on some aspect of patent litigation concerning a drug. A question we need to ask ourselves is whether it is ethical to serve as an expert witness when problems are found in the patents that allow the generics to be manufactured and sold. On the one hand, one should consider that the big pharmas have put in a lot of time and money into bringing these drugs to market, and they deserve to reap the benefits. On the other hand, the comparable generic drugs are much less expensive and allow their use by many more patients and consumers than might otherwise have been possible. What do you think? Do generic drug companies take undue advantage of loopholes in the patents or does big pharma exploit the consumer by charging exorbitant prices for their drugs and thus deserve the competition? I'd appreciate hearing your thoughts on this.

As you can see in this issue, SEACers have been very busy garnering awards, organizing and running meetings, and attending meetings and workshops. And from the list of upcoming meetings, it looks like a never-ending possibility for future meetings. The latest award

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I recently heard about is the 2010 ACS Division of Analytical Chemistry Award for Distinguished Service in the Advancement of Analytical Chemistry that will be presented to Royce Murray at the ACS meeting in Boston. Congratulations, Royce, for a well-deserved award.

I also welcome our newest members of the SEAC Board of Directors: Shigeru Amemiya, Antje Baeumner, and Frank Zamborini. Their bios appear elsewhere in this issue. And a special thanks to Petr Vanýsek for accepting the important office of SEAC Treasurer as Johna Leddy moves up to the position of President-Elect after many years of service as Treasurer. Petr is clearly well-qualified for this position and his service is greatly appreciated.

Finally, let me add that, as a Professor Emeritus, I look forward to the beginning of a new academic year, and offer all the best to you active academicians.

-- Dick Durst

PITTCON 2010

SEAC will again be sponsoring a poster session at PITTCON 2011. In addition to the research presented, we will recognize the contributions of our Student Travel Award winners. Make sure that you designate any poster abstracts for the SEAC poster session

SEAC will also hold its Reilley and Young Investigator Award Symposium (see feature on our awardees, Rick van Duyne (Northwestern) and Jill Venton (Virginia) in the last issue of the Newsletter at <http://electroanalytical.org/SEACcom/SEACcom-may10.pdf>). We all look forward to celebrating the accomplishments of Richard van Duyne and Jill Venton. More details of the program will appear in upcoming issues.

HONORS AND AWARDS

Rick van Duyne will be honored at a symposium at the Fall National ACS meeting as the recipient of the 2010 ACS Award in Analytical Chemistry. The award is sponsored by the Battelle Memorial Institute. (See the feature on his award in our November, 2009 issue.)

Christy Haynes, in addition to receiving an Alfred P. Sloan Fellowship, will be feted at FACSS, 2010, at a symposium in honor of her being chosen as the 2010 recipient of the Arthur F. Findeis Award for Achievements by a Young Analytical Scientist. The Findeis Award is sponsored by the ACS Division of Analytical Chemistry. Christy's graduate student Kyle Bantz was awarded an ACS DAC Fellowship.

Antje J. Baeumner (Cornell University) was named a Faculty Fellow of the Cornell Undergraduate Information Competency Initiative. She also received the prestigious 2010 Grocery Manufacturers Association (GMA) Food Safety Award, which was awarded to the Cornell Food Safety Group. She was also nominated to the Editorial Board of Nano-Bio-Analysis (NWPII).

NEW TREASURER AND BOARD MEMBERS

MEET THE NEW TREASURER- PETR VANÝSEK

As of July 1, Petr Vanýsek has assumed the office of Treasurer. Petr writes that he is very grateful for the trust placed in him by our members, and will do his best continue the fine job done by Johna Leddy (our President-elect, due to take office next summer). He also reminds us that the treasurer always has big shoes to fill since the first SEAC treasurer was Larry Faulkner. He says, however, he is not sure he should be looking for guidance from electrochemistry as to how to handle accounting. Whenever perusing second semester freshmen chemistry texts, he says he is always made aware of the ambiguity in “+” and “-“ signs in calculating potentials.

Petr brings a great deal of experience to the position, having been treasurer of the ECS Chicago Local Section and the secretary treasurer of the Physical Electrochemistry Division of ECS (in addition to being assiduous about his own checkbook every month!). He is also very much aware of the new rules for non-profits and the work necessary to remain in compliance. We all look forward to Petr's input on the Board, and he (in turn) welcomes your suggestions.

When not busy with his duties as treasurer, he will continue to carry out his electroanalytical research at Northern Illinois University. Petr's research focuses on physical electrochemistry;



electrochemistry of electrolyte interfaces; interfacial structure and transport; optical processes on electrified interfaces; sensors; separations and microfluidics.

NEW BOARD MEMBERS

Shigeru Amemiya is an Associate Professor in the Department of Chemistry, University of Pittsburgh. He received his Ph.D. in Chemistry from University of Tokyo under the supervision of Dr. Yoshio Umezawa. He was a postdoctoral fellow of the Japan Society for the Promotion of Science and worked under the supervision of Dr. Allen J. Bard at University of Texas at Austin. His research interests include electrochemistry at liquid/liquid interfaces and scanning electrochemical microscopy of nanomaterials and membranes.



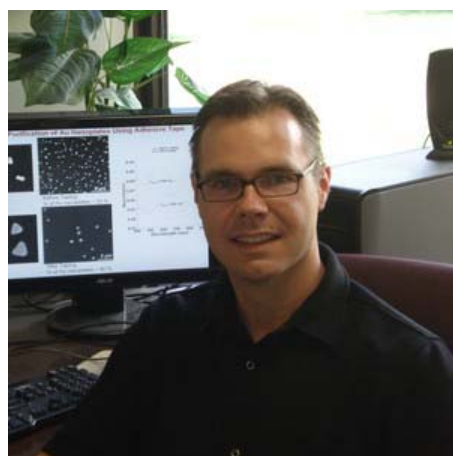
Antje Baeumner is a Professor in the Department of Biological and Environmental Engineering, Cornell University. She received her Ph.D. at Stuttgart University in 1997 and did her postdoc under the supervision of Dr. Richard A. Durst. Her research focuses on the development of



electrochemical microfluidic biosensors, bioMEMS and optical lateral flow assays for the detection of nucleic acid sequences and proteins related to the quantification of pathogenic organisms in food, the environment, for biosecurity and for medical diagnostics. Her research is currently funded by the NIH, NSF, and EPA. She has 60+ publications, and 6 patents. She has organized several international symposia and conferences including symposia at PITTCON, the International Biosensors Workshop with IAEAC. She was the chair of the Gordon Research Conference on Bioanalytical Sensors in 2010. In

addition to many teaching awards she has received several national and international awards including being a finalist of the Blavatnik award for Young Scientists, a Humboldt Research Fellowship and a German Science Foundation Mercator Guest Professorship.

Frank Zamborini is an Associate Professor in the Department of Chemistry at the University of Louisville and his research foci are sensors, nanomaterials and microscopy. Frank is a graduate of Carthage College, from which he migrated to the great state of Texas to work as a graduate student with Professor Richard M. Crooks and then to the University of North Carolina to post-doc with Royce Murray. Since arriving at Louisville, Frank has established a very successful program based on the chemical and electrochemical synthesis and the nanopatterning of metallic nanoparticles and nanowires. He has not only explored the size-dependent properties of metallic nanostructures and the fabrication of nanoscale junctions between nanowires and macroscale surfaces, but also has looked at the applications of these structures for chemical sensing.



MEMBER LIAISONS - MATERIALS AND BIOELECTROCHEMISTRY

In addition to his responsibilities as a new Board member, Frank Zamborini (profiled above) has also agreed to act as a member liaison for those in SEAC whose interests tend



toward materials electrochemistry. Our other member liaison is **Charles (Chuck) Henry**. Chuck is an Associate Professor of Chemistry and Chemical & Biological Engineering at Colorado State University. He received his Ph.D. in Analytical Chemistry under the supervision of Dr. Ingrid Fritsch at the University of Arkansas, and was an NIH postdoctoral fellow at the University of Kansas under the supervision of Dr. Susan Lunte. His research interests lie broadly in the areas of microscale separations and electrochemistry with application to questions in bioanalytical and environmental chemistry. Specific research projects include coupling different electrochemical

analysis methods with microchip separations as well as the development of microfluidic electrochemical biosensors.

NOMINATIONS FOR OFFICERS AND BOARD MEMBERS

Please start thinking about nominations for elections. A formal call for nominations will be sent out shortly, but it is never too early to start scouting out a

REPORTS FROM MEETINGS AND SYMPOSIA

2010 Gordon Conference on Bioanalytical Sensors

Antje J. Baeumner (Cornell University) co-chaired the 2010 Gordon Research Conference on Bioanalytical Sensors with Weihong Tan (University of Florida), which was held in New London, NH, June 20 – 25th. Vice-chair was Steven Soper (LSU). A record number of attendees (over 165) from academia, government and industry joined in a weeklong discussion of research at the forefront of bioanalytical sensors. Topics ranged from fundamental research within the broad field of bioanalytical sensors to challenges of developing biosensors for commercialization, from electrochemical to optical to mass-based sensing approaches. The conference was supported in part by the GRC organization, the NIBIB, the NSF and the ARO. Additional funding was obtained from Qiagen, Rheonix, Inc., Analytical and Bioanalytical Chemistry (Springer), Cell Press, and the Analyst (RSC). During the conference Susan Lunte (KU) and Paul Cremer (Texas A&M) were elected as vice chairs for the 2012 conference.

RALPH ADAMS RESEARCH SYMPOSIUM AND REUNION

Former graduate students, undergraduate students, and postdoctoral researchers from across the nation who worked in the Ralph Adams Research Group at The University of Kansas returned to the KU campus this summer for a Research Symposium and Reunion. The Adams Group alumni were joined by friends and family for three days of research presentations, campus and facility tours, and social events. The Buzz Adams Legacy Symposium and

Reunion took place on June 11-13, 2010, and welcomed over 40 guests who shared their current research activities and memories of their time in the Adams Lab, and renewed old friendships.



Seated: Albert Burgstahler, Sue Lunte. *First row:* Rick McCreery, Jane McCreery, Gus Manning, Barbara Rice, Margie Zimmerman, Ted Kuwana, Mark Wightman. *Second row:* K.V. Thrivikraman, Barbara Miller, John Zimmerman, Rena Kirkpatrick, Jane Kuwana. *Third row:* Paul Plotsky, Nancy Harmony, Bev Wilson, George Wilson, Terry Miller. *Fourth row:* Marlin Harmony, Wes White, Pete Kissinger, Richard Hart, Craig Lunte, Ivan Mefford.

The symposium took place on Saturday, June 12, and featured presentations by a number of Adams alumni. Presenters included:

- Mike Johnson, Assistant Professor of Chemistry, The University of Kansas. *“High temporal resolution analytical measurements in living systems”*
- Pete Kissinger, Professor of Chemistry, Purdue University. *“Personalized Medicine; Automated Serial Blood Sampling for Clinical Drug Trials, NICUs and ICUs; Exploring Dried Biofluid Samples with DESI Mass Spectrometry”*
- Richard McCreery, Professor of Chemistry, Senior Research Officer, National Institute for Nanotechnology, University of Alberta. *“Nonvolatile Memory from the World’s Thinnest Electrochemical Cell (containing a carbon electrode, what else?)”*
- Terry Miller, Ohio Eminent Scholar, Professor of Physical Chemistry, The Ohio State University. *“Free Radicals from the 1960’s into the 21st Century”*
- Margaret Rice, Professor, Departments of Neurosurgery & Physiology and Neuroscience, New York University. *“Dopamine: Beyond the Synapse”*
- Mark Wightman, W.R. Kenan, Jr. Professor of Chemistry, University of North Carolina, Chapel Hill. *“Neurochemical responses to rewarding and aversive stimuli”*

Following the symposium, some of the attendees toured the offices and labs of the Adams Institute for Bioanalytical Chemistry, while others chose to visit the scenic KU campus. After dinner, the group gathered at the home of Gini Adams for a reception to conclude the day's activities.

On Sunday morning, the participants took advantage of a final opportunity to reconnect with colleagues at a brunch in the historic Eldridge Hotel in downtown Lawrence before heading off to catch their various flights home. The last Adams Reunion was held in 2001, so there was quite a bit to catch up on at this gathering. All enjoyed this opportunity to connect with old friends and make new ones, and parted with a promise to meet again at a future, not too distant date.— *Submitted by Gary Webber*

2010 ASDL Workshop



Seated: Rick Kelly, Cynthia Larive, Anna Cavinato, Heather Bullen, Erin Gross, Faye Rubinson, Ted Kuwana. *Standing:* Al Scheeline, David Harvey, William Otto, Tom Wenzel, Suzanne Lunsford, Tom Spudich, Alanah Fitch.

On the education side, a number of our members were participants in the 2010 Analytical Digital Sciences Library Curriculum Development Workshop. Cynthia Larive headed up organization of the workshop in Columbus, OH on the June 22-24. During the three days of the workshop, new collaborations were established, on-line materials were generated, and Ted Kuwana - always the font of wisdom when it comes to cuisine - introduced several attendees to an incredible Thai restaurant.

Lecture and laboratory materials generated during the workshop (as well as a wealth of other resources) can be accessed at <http://www.asdlib.org/index.php>

MEETINGS TO COME

Meetings of interest to our SEAC members abound during the coming year, with several symposia being organized by our members - or being held in their honor!.

Meeting	When	Where	Link for More Information
Gordon Research Conference- Electrodeposition	2010, August 1-6	New London, NH, USA	http://www.grc.org/meetings.aspx?year=2010
Faraday Discussion 149: Analysis for Healthcare Diagnostics and Theranostics	2010, August 6-8	University of Edinburgh, UK	http://www.rsc.org/ConferencesAndEvents/RSCConferences/FD149/index.asp
American Chemical Society Fall Meeting	2010, August 22-26	Boston, MA, USA	http://portal.acs.org/
International Symposium on Electrocatalysis: Molecular Level Approach to Modern Applications	2010, August 22-25	Kloster Irsee, Germany	http://www.uni-ulm.de/electrocatalysis
Int'l Symposium on Polymer Electrolytes	2010, August 29- September 3	Padova, Italy	http://www.chimica.unipd.it/ispe12/
Electrochemistry: From Microscopic Understanding to Global Impact	2010, September 13-15	Bochum, Germany	http://www.gdch.de/electrochemistry2010
Electrochem 2010: Electrochemistry and Sustainability	2010, September 14-15	Univ. Wolverhampton, UK	http://www.rsc.org/ConferencesAndEvents/conference/alldetails.cfm?evid=105717
Progress in MEA components for Medium and High Temperature Polymer Electrolyte Fuel Cells	2010, September 19-22	La Grande Motte, France	http://www.progressmea.org
61st Annual ISE Meeting	2010, September 26- October 1	Nice, France	http://event10.ise-online.org/ (includes Electrochemistry on a Local Scale)
6th Workshop on Scanning Electrochemical Microscopy	2010, October 3-7	Frejus, France	philippe.hapiot@univ-rennes1.fr
218th ECS Meeting	2010, October 10-15	Las Vegas, NV, USA	http://www.electrochem.org/meetings/biannual/218/218.htm
FACSS 2010 "Tomorrow's Analytical Sciences Today" (See below for further info)	2010, October 17-21	Raleigh, NC	http://facss.org/facss/index.php
9th International Frumkin Symposium	2010, October 24-	Moscow, Russia	http://www.elchem.ac.ru

Meeting	When	Where	Link for More Information
"Electrochemical Technologies and Materials for 21 st Century"	29		
Pacificchem 2010	2010, December 15-20	Honolulu, HI, USA	http://www.pacificchem.org/
2nd Electrochemistry Conference (Zing Conferences)	2011, February 16-19	Sharm el Sheikh, Egypt	http://www.zingconferences.com/z.cfm?c=67
3 rd Annual Workshop on Electrochemistry	2011, February 19-20	Austin, TX, USA	http://cec.cm.utexas.edu/events
Pittcon 2011	2011, March 13-18	Atlanta, GA, USA	http://www.pittcon.org/
American Chemical Society Spring Meeting	2011, March 27-31	Anaheim, CA, USA	http://portal.acs.org/
219th ECS Meeting	2011, May, 1-6	Montreal, Canada	http://www.electrochem.org/meetings/biannual/fut_mtgs.htm
9th ISE Spring Meeting	2011, May 8-11	Turku, Finland	http://spring11.ise-online.org/
ICAS 2011, International Congress on Analytical Sciences	2011, May 22-26	Kyoto, Japan	http://www.icas2011.com/
Matrafured 2011 Conference on Electrochemical Sensors	2011, June 19-24	Dobogokö, Hungary	http://www.pretsch.ethz.ch/matrafured/
American Chemical Society Fall Meeting	2011, August 28-September 1	Colorado, CO, USA	http://portal.acs.org/
62nd Annual ISE Meeting	2011, September 11-16	Niigata, Japan	http://event11.ise-online.org/
220th ECS Meeting	2011, October, 9-14	Boston, MA, USA	http://www.electrochem.org/meetings/biannual/fut_mtgs.htm
Pittcon 2012	2012, March 11-16	Orlando, FL, USA	http://www.pittcon.org/
American Chemical Society Spring Meeting	2012, March 25-29	San Diego, CA, USA	http://portal.acs.org/
10th ISE Spring Meeting	2012, April 16-19	Perth, Australia	http://www.ise-online.org/annmeet/next_meetings.php

Meeting	When	Where	Link for More Information
221st ECS Meeting	2012, May, 6-11	Seattle, WA, USA	http://www.electrochem.org/meetings/biannual/fut_mtgs.htm
11th ISE Spring Meeting	2012, May 23-25	Washington DC, USA	http://www.ise-online.org/annmeet/next_meetings.php
63rd Annual ISE Meeting	2012, August 19-24	Prague, Czech Republic	http://www.ise-online.org/annmeet/next_meetings.php
American Chemical Society Fall Meeting	2012, August 19-23	Philadelphia, PA, USA	http://portal.acs.org/

ACS Fall Meeting: Two symposia of special interest to our members will take place at the ACS Fall, 2010, National Meeting. As featured in our May issue, there will be a symposium honoring Royce Murray's long history of contributions not only to electrochemistry but to analytical chemistry. In addition, Rick van Duynes will be honored as this year's recipient of the ACS Award in Analytical Chemistry

FACSS: In October, Christy Haynes will be honored as the recipient of the Arthur F. Findeis Award for Achievements by a Young Analytical Scientist.

PITTCON: A symposium focusing on nanostructures is being organized by Bo Zhang for Pittcon 2011.

SEAC will sponsor a poster session during PITTCON, which is being organized by Johna Leddy.

2nd ELECTROCHEMISTRY CONFERENCE (ZING CONFERENCE): This symposium, chaired by Prof. Phil Bartlett (University of Southampton) and Prof. Marc Koper (Leiden University), features a number of SEAC members. Speakers include Christian Amatore, Hubert Girault, Jan Rossmeisl, Julie MacPherson, Masatoshi Osawa, Nicolas Mano, Peter Bruce, Petr Krtil, Richard Nichols, Tim Albrecht, Wolfgang Schmickler, Katharina Krischer, Nuria García-Aráez, Pat Unwin, and Rolf Schuster.

JOB OPENINGS

A "School of Energy Resources Postdoctoral Fellowship" is available in the laboratory of Professor Bruce Parkinson in the Department of Chemistry at the University of Wyoming. This person will be working on photoelectrochemical solar energy conversion in a state of the art laboratory. Experience in electrochemistry, solid state chemistry or solid state physics is desirable. The position will pay \$60k per year. For further information or to apply contact:

Professor Bruce Parkinson
 Department of Chemistry
 School of Energy Resources
 University of Wyoming
 Laramie, Wyoming 82071
 e-mail: bparkin1@uwyo.edu

IN THE NEXT ISSUE

- Seen an interesting electroanalytical application in the literature??. Beginning in the next issue, we will have links to some of the ones noted by members.
- More details on SEAC activities at PITTCON, including the time and place for the Reilley reception and banquet.