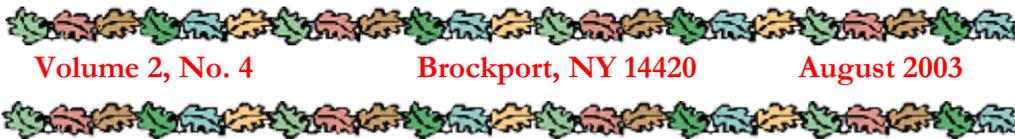


The Department of Chemistry Times

An Electronic Newsletter of the Department of Chemistry
State University of New York
College at Brockport



Volume 2, No. 4

Brockport, NY 14420

August 2003

Dr. Sherry A. Spinelli Joins Chemistry Faculty

By Thomas W. Kallen

Dr. **Sherry A. Spinelli** has been appointed as Visiting Assistant Professor to replace Professor **J. Emory Morris** as our resident biochemist during 2003-2004 Academic Year while Morris is on-leave in Kenya, Africa.

Spinelli graduated from the **SUNY College at Brockport** with a BS in Biology in 1994. While she was an undergraduate, she participated in the research of both Professor **William P. Todd** of the Department of Chemistry and Professor **Craig Lending** of the Department of Biological Sciences.

Spinelli then went on to earn an MS in Biochemistry from the **University of Rochester** in 1997, and a PhD in Biochemistry from the **University of Rochester** in 1999. Her thesis, done under the supervision of Professor **Eric Phizicky**, was entitled "A functional *Escherichia coli* homolog of a yeast tRNA splicing enzyme: removal of the splice junction 2'-phosphate involves transient ADP-ribosylation of the phosphate."

Following receipt of her doctorate, Spinelli continued working with Phizicky on a one-year postdoctoral appointment to study "the use of a genomic library to study the biochemistry of tRNA splicing."

She is currently working with Professor **Douglas H. Turner** at the U of R Medical Center on a project entitled "The design of

small oligonucleotide-based compounds as therapeutics to target ribonucleic acid (RNA)" under an American Cancer Society Postdoctoral Fellowship.

Spinelli is co-author of seven publications based on her work toward her MS and PhD with Professor **Eric Phizicky** of the University of Rochester. She will be co-author on one additional publication, in preparation with Douglas Turner, based on her postdoctoral research at the U. of R Medical Center.

She plans to continue her collaboration with Professor Turner while she is at Brockport and would be willing to involve a Brockport undergraduate or two in her work at the Medical Center during the January intersession, perhaps for Independent Study credit. Students interested in pursuing the possibility of participating in her research with Professor Turner should feel free to consult with Dr. Spinelli during the Fall 2003 Term.

During the Fall 2003 Term, Spinelli will be teaching CHM467, Biochemistry I, as well as CHM205.04 laboratory and CHM305.03 laboratory. She will be teaching CHM468, Biochemistry II, CHM470, Biochemistry Laboratory, and either CHM205 lecture and one of its two lab sections or CHM121 and its associated lab section in the Spring 2004 Term.

Welcome to the Department Sherry, or should we say, "welcome back!" It seems like only yesterday that you were a student here!

Hoffmann Receives PRF Grant

By Thomas W. Kallen

The American Chemical Society Board of Directors has awarded Professor **Markus M. Hoffmann** an ACS Petroleum Research Fund (PRF) Type G grant in the amount of \$35,000 for the period from 9/1/03 through 8/31/05. Type G starter grants are specially designed to assist young faculty members to initiate programs of self-conducted research.

The text of Hoffmann's grant proposal, which was entitled "Combining Ionic Liquids and Supercritical Carbon Dioxide into a One-Phase Solvation Medium for Chemical Reactions," proposes combining ionic liquids with supercritical carbon dioxide to produce a new class of "designer solvents," an unique idea from at least two perspectives. Both supercritical carbon dioxide and ionic liquids are environmentally benign solvents and are easily recovered from reaction mixtures in pure form after their use. Taken together, they offer the advantage of providing a polar reaction environment (ion monopoles) within a non-polar medium. These combinations can, in principle, solvate non-polar, polar or ionic reactants, products and reaction intermediates with equal facility, thereby causing even the most complex organic reaction to occur smoothly as a homogeneous, rather than heterogeneous, process.

The reviewers of Hoffmann's grant proposal noted its central importance to the study of supercritical carbon dioxide, ionic liquids *and* the area of chemistry becoming known as "green chemistry." They praised in particular the work he has already conducted with undergraduates at SUNY Brockport.

Hoffmann has now received two major grants to support his research: a starter grant for new faculty at predominantly undergraduate institutions from the Camille and Henry Dreyfus Foundation for his first three years at Brockport and now a PRF Type G grant to support the next two. Well done, Markus!

Department Wins Contract to Continue Peer-led Team Learning (PLTL) Effort

By Thomas W. Kallen

Professor **Markus M. Hoffmann** and a team consisting of Professors **Kenneth D. Schlecht** from the **Department of Chemistry** and **Lynae S. Sakshaug**, and **Peter D. Veronesi** from the **Department of Education and Human Development** have entered into an agreement with Northeastern Illinois University (NEIU) to become a "Workshop Program Associate" under their multi-year NSF grant during the 2003-2004 Academic Year. Under the terms of the agreement, Hoffmann's team will work to "increase retention in introductory college-level chemistry courses while preparing school science teachers."

The team's goal is to extend and further develop the Peer-led Team Learning (PLTL) approach to providing peer reinforcement of instruction to students enrolled in College Chemistry I and II during the 2003-2004 Academic Year. The PLTL approach was piloted with 60 student volunteers enrolled in College Chemistry I and II during the 2002-2003 Academic Year. Michael A. Maggiotto, former Dean of the School of Letters and Sciences, provided the funds for this pilot program. Peer tutors were recruited from the ranks of science majors and students pursuing permanent certification in secondary science teaching.

NEIU will provide \$5,625 to recruit and train workshop leaders, develop and evaluate new workshop materials, evaluate the workshop model, and disseminate the results of the workshop model at regional/national meetings. The College, through its Assistant VP for Academic Affairs, **P. Michael Fox**, has committed \$5,000 from the **Center for Excellence in Learning and Teaching**. It is anticipated that the two sources of funds will allow the PLTL approach to be extended to the entire college chemistry class during 2003-2004!

Logan Presents Poster at 2003 National Organic Symposium

By Thomas W. Kallen

Professor **Margaret E. Logan** presented a poster paper entitled “An Improved Synthesis of Electron-Rich Diaryl Ditellurides and Diaryl Tellurides” at the **2003 National Organic Symposium** in Bloomington, Indiana this past June. Three of her past research students, **Elizabeth A. Gregory** ('02), **Stacy A. Morrill** ('02), and **Andrea N. Topolnycky** ('03), were listed as co-authors of the paper.

Professor Logan's poster paper is posted on the bulletin board opposite her office if you are on campus and are interested in seeing the direction her research has taken.

Hoffmann and Logan Mentor a Byron-Bergen High School “Project SEED” Student

By Thomas W. Kallen

Professors **Mark P. Heitz**, **Markus M. Hoffman** and **Margaret E. Logan** shared responsibility this summer for being research mentor to Jacob Torrence, a Byron-Bergen High School student. Jacob was placed in our department by the local section of the **American Chemical Society (ACS)** under the American Chemical Society's “**Project SEED.**” Jacob received a stipend from the ACS to work with Heitz, Hoffmann and Logan for eight weeks in our department.

Project SEED is a national program of the ACS, administered locally by Lew Allen of the Rochester Section of the ACS. The program offers a unique opportunity for economically disadvantaged high school students to spend part of a summer conducting hands-on research with a scientist in a laboratory setting. Mr. Stephen Locke, Jacob's high school chemistry teacher, recommended Jacob for participation in Project SEED. The ACS placed three of ten Monroe County Project SEED applicants with mentors this

year---one at Nazareth College, one at RIT, and Jacob with us.

Jacob lives with his mother in Byron, NY and is the youngest of three children. His high school activities include wrestling, cross-country, and the field events in track. In his “free time,” he likes to swim.

Jacob plans to attend the University at Buffalo for two years following his graduation from high school. Then his plan is to transfer to Columbia University to complete a degree in chemical engineering.

Jacob is working on some new NMR-based experiments for implementation in the undergraduate curriculum, as well as participating in the optical spectroscopic study of room temperature ionic liquids using absorption and fluorescence spectroscopy.

Last year's SUNY Brockport Project SEED participant, Nicole Bushie, then a student at Brockport High School, worked with SUNY Brockport chemistry major **Chris Woods** ('03) to synthesize several ionic liquid compounds; and, as part of their work, developed a novel synthesis involving an ordinary household microwave oven. Their results are described in the article, “Microwave-Assisted Synthesis of 1-Ethyl-3-Methylimidazoleum Bromide” (Woods, C. M., Bushie, N. T.; Hoffmann, M. M.; **Journal of Undergraduate Chemistry Research**, Vol. 2, No. 2, pp. 1-4.).

We hope that Jacob has a research experience that is equally rewarding!

Megan Bennett Presents Research Results at RMC

By Thomas W. Kallen

The following seminar presentation announcement was e-mailed to the *Times* in early August by **Jack Fox** ('92; MS Physical Chemistry, SUNY Binghamton, '97), Research Scientist of the **Rochester Midland Corporation (RMC)**. Rochester Midland Corporation provides complete support for

one undergraduate research student each summer on a project of interest to RMC and also provides supplemental support to one other student supported in part by funds from the **Brockport Foundation**.

“**Megan Bennett**, the undergraduate Chemistry major student who was sponsored by RMC for eight weeks of full time research this summer under the supervision of Dr. **Markus Hoffmann**, Assistant Professor of Chemistry, will be presenting the results of her efforts this Wednesday, August 13th at 10:30 AM in the Building 333 Boardroom (333 Hollenbeck Street, Rochester, NY 14621). The talk should last about 45-50 minutes with some time for questions and/or comments afterwards. Her project involved the use of one-dimensional proton Nuclear Magnetic Resonance (NMR) spectroscopy to measure interactions of one of our many surfactant raw materials with water. Surfactants are the materials responsible for many of the cleaning properties of RMC products.

RMC and the Chemistry Department of SUNY Brockport have forged a symbiotic partnership that provides real life industrial research experiences to college students and valuable, cost-effective contributions to our own basic research needs. Knowledge from the above projects could be applied towards a better understanding of the flow properties of many of our products through our delivery systems, and could conceivably be utilized to enact many formulation improvements in a variety of RMC products.

Come hear the results of Megan’s work and explore some of the very interesting aspects of surfactant science and, more importantly, see how both can benefit when Industry and Academia get together! *Hope to see you there!*”

We would note that Megan Bennett is the first SUNY Brockport undergraduate to receive summer research support under the terms of the agreement between the Rochester Midland Corporation, the **SUNY Research**

Foundation, and Professor Hoffmann of the Department of Chemistry.

Once Again, A Poem from the Spring 2003 “Roast”

By Thomas W, Kallen

Amanda Sturdevant ('03) wrote the following poem for the Spring 2003 Spaghetti Dinner/Faculty “Roast” to commemorate the long-awaited completion of her honors thesis. Although the poem was presented as a “roast” of her research advisor, Professor **Mark P. Heitz**, it is really more a note of “thanks” to Heitz, not to mention a not-so-soft sigh of relief!

The Thesis

By Amanda B. Sturdevant
Class of 2003

I'll tell you a tale of a paper I wrote
That was almost as difficult as crossing a moat
I started last May, right about this time
It seemed a good idea, like writing this rhyme

Summer was fun, the research it went well
What fall term would bring, only time would tell
Then came the day when the data was through
Heitz asked if I'd been writing--I asked, “No,
have you?”

Things got messy then...I won't repeat it here
But it was the start of a very long year
I spent days in Smith Hall without seeing the sun
Little did I know, I had only begun

Christmas break passed and it still was not done
The procrastination award, I had won!
My poster was finished and my talk was just fine
My paper...? I couldn't get past the title line

So there I sat in room 241
With my coffee in hand I was sure I'd be done
Morris would pass and ask what page I was on,
I would just laugh and tell him to move on

Kallen came by to read over my shoulder
The air in the room couldn't get much colder
Logan would say, "Keep pluggin' away."
I only needed 20 pages by the end of the day.

But Heitz never wavered, he never gave up,
He always told me to keep my chin up
Together we wrote from sunrise 'til sunset
We were going to get it finished yet!

The editing process was quite the chore
Now that classes are done, there isn't much more
Next week it will end, the thesis will be bound
I will graduate and no longer be around

The Thesis was rough; I'm not going to lie
Everything in life is worth a good try
I gave it my best and I hope you all know
Without Dr. Heitz I'd have nothing to show

(He did miss a few presentations of the work
But I'm willing to forgive that little quirk)
The thesis is done, I can almost proudly say
I really cannot wait to hand it in Monday

Dr. Heitz, I thank you for all you have done
For making this process at least a little fun
At Michigan State where the process will repeat
I'll always remember my SUNY Brockport feat

So thank you again, for your belief in me
How much it has meant, I hope you can see

It is worth noting that Amanda is only the fourth student to have earned **Honors in Chemistry** since the College approved the granting of departmental honors in 1997 (**Amanda Sturdevant**, '03, **Mike Nicholson**, '01, **Tracy Wiesner** '00, and **Heather Matzel**, '00). Her honors thesis, entitled "Spectroscopic Study of DCM as Molecular Probe for Solute-Solvent Interactions," was the last of the requirements to be completed to earn this distinction.

Fortunately for Amanda, the **Honors Program at SUNY Brockport** allowed her to submit the same thesis in fulfillment of the thesis requirement for **Honors Program "Honors."** She was not obliged to go through the whole process again for the Honors Program Director, Professor **Mark Anderson**.

Please forgive the light editing this reporter did on/to your poem, Amanda! After all, he insists that he really didn't get a second shot at reading and editing your thesis!

Phyllis Lista and Mark Bewicke Tie the Knot!

By Thomas W. Kallen

Although this story is not "Alumni News," it is news of interest to all alumni. Phyllis Lista, Secretary to the Department of Chemistry and the Department of Physics has been "den mother," confidante, and "mother confessor" to chemistry and physics majors for as long as this reporter can remember. To many alumni, she *is* both the Department of Chemistry and the Department of Physics!

Her many departmental roles include all those that bear upon the lives of students *as people first*, while the faculty tend to treat students, even our majors, as students and future professionals first and as people only when necessary!

It was Phyllis who made sure you signed your time sheets and then got your Temp Service or Work Study check to you as soon as it arrived. She even went so far as to track down sources of emergency loans or scholarships for those who were having financial difficulties!

It was Phyllis who helped the Chemistry and Physics Clubs organize the spaghetti dinners and picnics and then "put the arm on" the faculty to participate and contribute.

It was Phyllis who planned, organized food purchases and donations, set-up before, and cleaned-up after the Annual Commencement Receptions in the Smith Hall lobby.

It was Phyllis who got the student lounge refurbished, complete with new furniture, freshly painted walls, and new carpeting, all to replace the ones that had been in use since 1968. It was also Phyllis who cleaned the student lounge kitchen and cleaned out the refrigerator after all of you had left for the summer!

On the more personal side, this reporter cannot cite individual acts of thoughtfulness or kindness, for he was and still is unaware of

the vast majority of them! He can only say that our graduates, when asked, say the person they will miss the most when they leave Brockport is Phyllis! Furthermore they say this in tones that can only be interpreted as meaning that she is both their friend and their “Mom-away-from-home!”

Therefore this reporter is pleased to report that Phyllis Lista and Mark Bewicke were married May 25th in Brockport. The couple spent their honeymoon on a cruise to the southern Caribbean.

Phyllis has been employed by the SUNY College at Brockport since graduating from Brockport High School in 1968. Her first job was as a maternity replacement for the Math Department's secretary; but she immediately interviewed for and got the position as the Physics Department Secretary in the fall of 1968.

Phyllis has received numerous awards for excellence in service to the College and its students over the years, including the 1986 Outstanding Service to the College Award, the 1996 Pierson Award from the Empire State Games for the Physically Challenged, the 1997 Adele Catlin Memorial Secretarial Award, the 2001 Outstanding Service to Students Award, and a Certificate of Appreciation for Exemplifying the Better Community Values of Integrity, Civility and Justice from the College in 2001.

Please join the faculty of the Department of Chemistry in wishing Phyllis and Mark many, many happy years together!

Alumni News

By Thomas W. Kallen

Dawn Lee (’93) and Jeff Burton were married Saturday, May 22, in the Outer Banks, North Carolina. Dawn, who is employed as Laboratory Manager for the **Department of Chemistry at SUNY Brockport**, earned an MS in Chemistry from **Rochester Institute of Technology** in 2002. Congratulations

from your friends and colleagues in Smith Hall, Dawn!

Cathy Edick (nee’ **Kemp**) (’95) completed her Doctor of Pharmacy degree at the **University of Tennessee, Memphis** in June 2001, finished a residency in Ambulatory Care in June 2002, and is now an Assistant Professor at the **Ferris State University College of Pharmacy** in Big Rapids MI.

Cathy married **Mathew Edick** (’95), a SUNY Brockport graduate and Biology major, in September 1998. “Mat” earned a PhD in Pharmaceutical Sciences from the **University of Tennessee, Memphis** in January 2003, completing his doctoral research at St. Jude Children’s Research Hospital under Dr. Mary Relling. He is now completing post-doctoral training in cancer cell biology under Dr. Cindy Miranti at the **Van Andel Research Institute** in Grand Rapids MI. “Mat” also hopes to enter the ranks of impoverished faculty after completing his “post-doc.”

Cathy wrote, “on a personal note, Mat and I are expecting our first child, after being married for 5 years (a little girl), this September...Pretty nifty we think!” ...“Hope all is well with you. Mat and I frequently look back on our Brockport days and smile! Thanks Dr. Kallen!”

Maria Bonanno (’01) and Richard M. Lehmann were married Saturday, May 31, in Greece, NY. Maria earned an MS in Materials Science and Engineering from **Rochester Institute of Technology** and is now employed as an engineer at the **Eastman Kodak Company**. Congratulations from all your friends in Smith Hall, Maria!

Daryl Ertl (’01), who has recently changed jobs and now works for **Bristol-Myers Squibb** in Syracuse, wrote the following in an e-mail message to Professor Thomas W. Kallen: “Hi Dr. Kallen. I was just talking to someone today who mentioned that his daughter was going to Brockport, and I thought I would drop you a line. Things have been fantastic since

graduating. I received a great promotion at Kodak shortly after graduation, and then recently I received an offer from Bristol-Myers Squibb that I couldn't turn down. I started working at the Syracuse plant in June and am so glad I made the move. My present job entails applying NIR spectroscopy to plants worldwide.

Hope all is well with you and the rest of the department. Thanks for the support and the quality education.”

Chris Woods ('03) wrote the following in an e-mail message to Professors Margaret E. Logan and Markus M. Hoffmann: "First off, let me thank you both for the immense feedback you have given me with regard to my resume, cover letter, and job search. I am happy to inform you that after several months of struggle, I have finally landed a job. I will be doing organic extractions (That's right, Dr. Logan, ORGANIC!) for **Columbia Analytical Services** in Rochester. I start Monday at 9 A.M. I had interviewed there for another job, but didn't get it. Then they called me back and said a new position had opened up and that if I wanted it, it was mine. I went crazy! I am so happy to be able to do something finally. And just so you know, I will be applying to grad school next fall. I hope to get my masters in Chemistry and eventually my PhD. After some long thinking, I would really like to ultimately be a college professor, much like you both, who have had such a profound impact not only in my academics, but in my life in general. I will keep you informed as to what is going on with me, and hopefully will get some time to come out and visit. Keep in touch, and thanks again.”

If you have news about yourself that you wish to have included in the “Alumni News” section of *The Department of Chemistry Times*, please send it by e-mail to the editor, Tom Kallen, at tkallen@brockport.edu.

SUNY BROCKPORT

The Department of Chemistry Times is posted on the Department of Chemistry Web site at irregular intervals by Professor, Chairman and Editor Dr. Thomas W. Kallen, Department of Chemistry, SUNY College at Brockport, 350 New Campus Drive, Brockport NY 14420-2971. You may visit the Department of Chemistry Web site at www.brockport.edu/~chemistry/. E-mail messages to the **Times** should be addressed to Professor Kallen at tkallen@brockport.edu.
