



The Annual E-Newsletter for Alumni & Friends of Chemistry

January, 2008

www.smu.edu/chemistry

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Chair Search

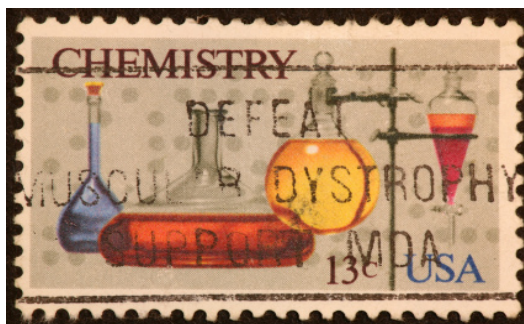
After a twenty-six year term, the search is on to find a suitable candidate to replace Dr. Edward Biehl who is stepping down as chair, but not retiring as a professor. That is one for the SMU history books! The search began in August, and five viable candidates have emerged. The department is in the final stages of selecting the new chair, and an announcement will be made in March, 2008.

Vision Statement

Our vision for the Department of Chemistry at SMU is to consciously exploit the synergy of design, synthesis, manipulation, and investigation to yield new matter and insight that will ultimately address the most important issues of our time.

To best accomplish our goals, we envision the establishment of an interdisciplinary **Center for Molecular Engineering and Design**, a center that will not only provide an environment for multifaceted research, but will also present unique opportunities for education and outreach to the public-at-large.

See page ten for details on how you can assist SMU Chemistry.



Year in Review

2007 has been a remarkable year. Between the search for a replacement chair, the blossoming Ph.D. program, and the “at capacity” undergraduate chemistry classes, we continually work together to overcome departmental challenges and educate students as effectively as possible.

There are twelve graduate students in the program this year. Congratulations to Weihua Wu, who completed his Masters in December, 2007. Two fourth-year students were admitted to candidacy. Moreover, three third-year students are working to overcome their last hurdle before candidacy, three second-year students are completing their literature seminars, and the three first years who are working their way through the one semester hour core courses, teaching labs and selecting research advisors.



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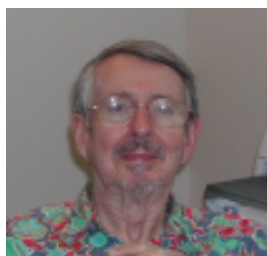
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Faculty News

Dr. Ed Biehl



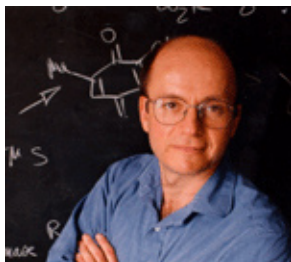
Dr. Biehl has been busy getting the department ready for the transition to a new chair after twenty-six years. He spent the summer at his Colorado retreat while continuing to work on his research with exciting results occurring in his laboratory. His research productivity continues at a high level, as evidenced by the total number of papers published in a two year period. He is pleased that the chemistry department has been targeted as a top priority for the next capital fund-raising campaign.

In his spare time, Dr. Biehl gave a piano recital that featured Chopin at the Women's Book Club meeting in Dallas, Texas.

2007 Awards: SMU Distinguished Citizen Award, Pan Hellenic Distinguished Professor Award

Dr. John Buynak

John Buynak had a busy and productive year. John continues to work with a pharmaceutical company to optimize the activity of his beta-lactamase inhibitors. This company has expressed serious interest in combining John's patented compounds with their beta-lactam antibiotic to generate a combination product that will be more active against resistant strains. While a few such mixtures are already on the market, e.g. the GSK product Augmentin[®], those compounds are not active against highly resistant gram-negative pathogens. The company is currently negotiating a licensing deal with SMU.



For the fifth consecutive year, John will offer his medicinal chemistry class in spring. That class has become quite popular with the premeds.

John's wife, Lily, has accepted a job with TIAA-CREF. His son, Michael, earned his second BS degree, this time in electrical engineering (he has a degree in computer science) and is concurrently working at Photodigm, a small company specializing in lasers in Richardson, while taking graduate classes in electrical engineering at SMU.

His stepson, Zack, is now a junior at Bishop Lynch High School.

We invite our alumni and friends to keep us up to date on changes in your professional and personal life by sending a quick e-mail to chem@smu.edu



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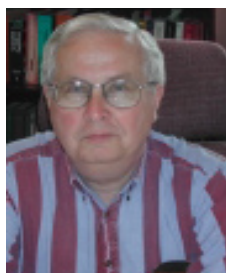
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Faculty News

Dr. John Maguire



John Maguire is still enjoying teaching and research. He has signed a contract with World Scientific Publishing to write a book, with co-authors in Illinois, Japan and Singapore, entitled "Boron and Gadolinium Neutron Capture Therapy for Cancer Treatment." John believes that 2008 will be an interesting year. He is also happy that his two granddaughters, Mary Ann and Mattie Lynn Maguire are back in Dallas.

Dr. Mike Lattman

Mike Lattman again spent last summer at Sandia National Laboratories in Albuquerque continuing his exploits into the "nanoworld."

Beatriz Rios-McKee, a second-year Ph.D. student in the department, joined Mike's research group this fall and is working on calixarenes. This is Mike's first Ph.D. student. Zach Laucis, an undergraduate senior, is also working in his laboratory.

Mike presented papers at two conferences this past summer: The Inorganic Gordon Research Conference in Newport, Rhode Island, and the International Conference on Calixarene Chemistry in College Park, Maryland. All is well with Michele, Allison, and Lauren.

Dr. Patty Wisian-Neilson

After 8 consecutive years of teaching general chemistry, Patty Wisian-Neilson has enjoyed a brief break for sabbatical leave this fall.

Last year's events included a renewal of funding from The Welch Foundation to study "Phosphazene Rings and Polymers," co-chairing/organizing a symposium honoring Harry Allcock, the 2007 ACS Award Winner for Applied Polymer Science @ Chicago, National ACS meeting in March, presentations at this symposium, Girl Scout Career Day, and TAMU-Commerce Science Day, an invitation to the editorial board of the *Journal of Inorganic and Organometallic Polymers and Materials*, and welcoming Cemile Kumas, the first Ph.D. graduate student, to the group.



The big family event of the year was her son Andy's wedding to Jennifer Kauffman in September at the Biltmore Estate in North Carolina.

Special Point of Interest:

SMU Chemistry is "going green." One step is the reduction in the usage of paper for the print edition of the annual newsletter. This is the inaugural issue of the SMU Chemistry E-Newsletter.



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Faculty News

Dr. David Son

David taught general chemistry for the spring and fall semesters of 2007, and the second half of organic chemistry during the summer. He also teamed up with Mike Lattman to teach the advanced inorganic laboratory course in the fall. David is still the chemistry undergraduate advisor, and he would like to report that the number of chemistry majors remains high. David's research continues in the area of coordination chemistry and organosilicon polymers and dendrimers.



Chinwon Rim and Christiana Rissing are now fourth-year graduate students in the chemistry Ph.D. program and are doing well. Chin is working on the synthesis of organometallic ring systems and Chris is synthesizing new organosulfur dendrimers. Naturally, with sulfur chemistry taking place in the lab, noxious odors occasionally make their way around the department. Chin and Chris have both completed their course and candidacy requirements and are working full-time on research.

Undergraduate researcher Michelle Adams (CHEM-BS) graduated in May but continued to work in the lab during the summer, synthesizing various amide ligands.

Although the ligands were originally intended for anion recognition chemistry, Michelle accidentally discovered that some of these ligands are very effective gels for solvents such as toluene. Unfortunately, at the moment David does not have the manpower to pursue this promising discovery. Michelle is now a first-year graduate student at the University of Texas at Austin, pursuing her Ph.D. in the lab of Professor Eric Anslyn. Former undergraduate researcher Anjali Kumar enrolled in the Ph.D. program at Rice University this fall, and has joined Professor Andrew Barron's group. Current undergraduate researcher Lauren Lahey (CHEM-BS) is now a fourth-year student with future plans of pursuing a Ph.D. in chemistry.

David's family is doing well. Heidi enjoys being a full-time mom and being active in church activities. Geoffrey will be five years old in March, and will enter kindergarten in fall, 2008. He seems to have a strong interest in cooking, as he has turned out to be a helpful assistant in the kitchen. Kaylee will be two years old in February and is just now starting to say a few words. Both kids have much more energy than their parents, but they are fun to be around. David apparently likes to subject himself to high-energy kids, as he is still teaching the newborn-toddler class at his church.



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Faculty News

Dr. Brent Sumerlin



2007 has been a very productive year for Dr. Brent Sumerlin. This year brought a new addition to the Sumerlin family named Stella Kate, who was born in March.



Brent impressively delivered eight seminars during the year at various universities and national laboratories, and was selected to present a plenary lecture at the International Symposium on Stimuli-Responsive Materials held at the University of Southern Mississippi during October 2007.

Additionally, Dr. Sumerlin was awarded the Oak Ridge Associated Universities Ralph E. Powe Junior Faculty Enhancement Award that will fund research to develop new methods of preparing novel polymer-protein bioconjugates. He was also appointed to the Editorial Board for the *Journal of Macromolecular Science*, and was awarded a Sam Taylor Fellowship to fund a project entitled "Self-Assembly of Responsive Nanomaterials."

Incidentally, the Sumerlin Research Group is garnering attention and developing a wonderful reputation. Specifically, a Sumerlin graduate student named Andrew Vogt was recognized as one of the best polymer chemistry graduate students in the United States. He is expected to speak at the 2008 Spring National Meeting of the American Chemical Society in New Orleans, LA.

Moreover, one of the Sumerlin Research Group papers was the sixth most-accessed article in *Macromolecules* during the first quarter of 2007, while another was featured on the cover of the *Australian Journal of Chemistry*.

Two other papers were the #1 and #2 "Hottest Papers" in *Macromolecules*. As defined by Thomson ISI's Essential Science Indicators, "Hot Papers" are articles published within the last two years receiving the most citations over the most recent two-month period. Interestingly, these were the only two polymer chemistry papers in the world to reach this distinction. Another one of the Sumerlin Research Group papers was accepted as a communication to the *Journal of the American Chemical Society*.



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Faculty News

Dr. Ling Hua

2007 has been an unusual year for Dr. Ling Hua and her husband Dr. Dunming Zhu. In June Dr. Hua was invited by Genencor, the second largest enzyme company in the world, to serve as a founding director of its fourth Center of Excellence - China Research Center in Shanghai. The Other three Genencor Centers of Excellence are in Palo Alto, USA; Leiden, The Netherlands and Brabrand, Denmark. Since her executive role in Genencor's enzyme discovery innovation, Ling has traveled more than 100,000 miles in the past half year among America, Asia and Europe. She has given numerous lectures at Universities and Institutes in the Chinese Academy of Science. Recently, she has been honored as a guest professor at Southern Yangtz University, the School of Biotechnology, one of the best schools in biotechnology in China.

During her leave of absence, Dr. Zhu was in charge of her research group and they had another fruitful year. They published 7 peer-reviewed articles in core scientific journals during 2007. Two more papers are in press and one manuscript is submitted for publication. They are also invited to contribute two book chapters. Their paper published in *Tetrahedron: Asymmetry* won the Most Cited Paper (2004-2007) Award by Elsevier Ltd, Oxford, UK. Dr. Hua was invited by NSF's Division of Chemistry to be a panelist for its Collaborative Research in Chemistry (CRC) Program. Additionally, she is a reviewer for several journals



including *Organic Letters* and *Journal of Organic Chemistry*. She was also invited to serve as a session chair at Enzyme Engineering Conference – the most prestigious international conference in protein engineering.

Postdoctoral Associate Dr. Yan (Kathy) Yang and graduate student Ms. Hongmei Li are working hard on their exciting discoveries. Graduate student Mr. Weihua Wu graduated in

December with M.S. degree and will join University of California Davis for further study. Dr. Chadrani Mukherjee, who worked with Dr. Zhu and Dr. Biehl, joined Manchester Interdisciplinary Biocenter in England in September. Undergraduate student Brooke A. Hyatt joined UT Galveston Medical Branch as a medical student. Tim J. Piegat, a community college student worked in the lab as an intern and was hired by Southwestern Medical Center as a technician.

During a break from research, the family enjoyed the beauty of Lake Tahoe, Yosemite National Park during summer. Their son James is in high school and enjoys debate tournament. He also went to WizQuiz national competition in Washington D.C. and on a mission trip to China during the summer. Their daughter Elizabeth, is a preschooler at SMU Preschool & Daycare Center. She enjoys drawing and playing with Dad, Mom and big brother.



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STAFF NEWS

Alan Humason (Laboratory Coordinator)

Alan has been given greater teaching responsibilities since completing his Master of Science degree. This past summer he taught the lecture section of organic chemistry to 34 students for the first time.

Alan now has an “in” with the Dean’s office. His wife, Melissa, after four years with the Chemistry department was promoted to Assistant to the Associate Dean of Administration. Melissa, who has made her mark by thriving on chaos, is very happy to have raised the chaos to a higher level.

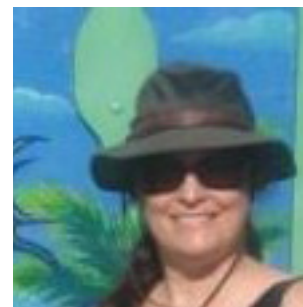
After eight years of long commutes from Frisco, and then The Colony, TX, Alan and Melissa have relocated to Dallas proper, where they bought a 40-year-old house that is feeling its age. They have combined households with Melissa’s parents, and are settling in nicely. They were surprised that, in moving into the city, they have also moved into an area with trees, birds, and many cats. Luckily, they love cats.

Alan and Melissa’s children, Alana Rose (9 years) and Aidan Bartholomew (4 years) are now attending school together, at Holy Trinity Academy. Alana Rose continues her studies in ballet at the Texas Ballet Theater, and is learning how to cook. Aidan, who continues to thwart all age-guessers with his large size, is learning how to read, write, swim, catch a ball, and generally be a boy.



Laurieann Ram-Kern (Admin. Assistant)

Laurieann is a polished degreed administrative professional who is incidentally, a State of Texas elected official. The “Honorable” Laurieann Ram-Kern was a “stay at home mom” until her younger daughter, Danielle graduated from high school in May of 2007.



Since she is an “Aggie Mom” now, Laurieann has returned to the workforce here at SMU, and is continuing her liberal arts studies while working full time.

Laurieann is known for her willingness to go the extra mile. Her positive attitude and training in Psychology, draws faculty, staff, and students to her desk quite frequently. She keeps Dr. Biehl on track, and supports the inspiring chemistry department as well.

As a summer project, Laurieann painstakingly developed the long awaited Chemistry Library, which houses rare chemistry books that have been graciously donated to the department.

Laurieann loves to travel to the Caribbean to study the rain forest and marine life. She visits the region frequently and hopes to retire to the Caribbean one day.



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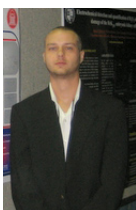
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GRADUATE STUDENTS IN THE SPOT LIGHT...

Andrew P. Vogt

Andrew P. Vogt is a third year Ph.D. student who is on the fast track to success! Namely, Andrew was recognized as one of the best polymer chemistry graduate students in the United States. He received the 2007 American Chemical Society Polymer Division – Award for Excellence in Polymer Graduate Research, and will present at the ACS National Meeting in New Orleans, LA, April 2008. Other 2007 accolades include winning the 2007 SMU Chemistry Departmental Award for Outstanding Research Assistant. Andrew had two peer reviewed publications:



- Andrew P. Vogt, Sudershan R. Gondi, Brent S. Sumnerlin “Hyperbranched Polymers via RAFT Copolymerization of an Acryloyl Trithiocarbonate” *Australian Journal of Chemistry* 2007, 60, 396-399 (Featured on Cover).
- Sudershan R. Gondi, Andrew P. Vogt, Brent S. Sumnerlin “Versatile Pathway to Functional Telechelics via RAFT Polymerization and Click Chemistry” *Macromolecules* 2007, 40, 474-481.



GRADUATE STUDENTS 2007 - 2008

4th year	Chinwon Rim
4th year	Christiana Rissing
3rd year	Hongmei Li
3rd year	Ming Li
3rd year	Andrew Vogt
Masters	Weihua Wu
2nd year	Jennifer Cambre
2nd year	Cemile Kumas
2nd year	Beatriz Rios
1st year	Micheal Knottingham
1st year	Abhijeet Bapat
1st year	Yuxin Wang

GRADUATE COUNCIL

As of fall 2007, the department boasts a new Chemistry Graduate Council. The organization is a student-governed group that is dedicated to the evolution, improvement and success of the Chemistry Ph.D. program. Besides planning social activities for current, alumni and prospective graduate students, the group meets regularly to discuss issues pertaining to seminar speakers, class scheduling and progress, student research activities, career planning and feedback about the new Ph.D. program.

The Chemistry Graduate Council had its first social event in December. Though the group is entirely a project of the graduate students, it has the full support of the faculty, as well as the Office of Research and Graduate Studies. The department is very proud of this initiative by its graduate students.



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YEAR IN REVIEW 2007

GRADUATES



Weihua Wu - Masters Chemistry
Ben Koh - Masters Chemistry
Michelle Adams - B.S. Chemistry
Brooke Hyatt - B.S. Chemistry
Mahnaz Rahman - B.S. Chemistry
Christopher Brooks - B.A. Chemistry
Shariq Chudri - B.A. Chemistry
Jacquelyn Covarrubias - B.A. Chemistry
Austin Follett - B.A. Chemistry
Bethany Johnson - B.A. Chemistry
Julie Kennedy - B.A. Chemistry
Debbie Montenegro - B.A. Chemistry
Rajiv Parmar - B.A. Chemistry
Ryan Richards - B.A. chemistry
Alice Wu - B.A. Chemistry
Hiep Doan - B.S. Biochemistry
Omair Khan - B.S. Biochemistry
Saiqa Khan - B.S. Biochemistry
Hiba Malik - B.S. Biochemistry
Aydin Nazmi - B.S. Biochemistry
Kruti Patel - B.S. Biochemistry
David Young - B.S. Biochemistry
Phu Doan - B.S. Biochemistry

AWARDS LIST FOR 2007

Kenner Award - Michelle Adams
CRC Press Chemistry Achievement Award -
Ali Palejwala
General Chemistry Achievement Award -
Sara Gingrich, Ali Haidar, Juliet Beth Hartford, Mahn-
prit Jutley, Jupin Malhi, Vijita Patel
Outstanding General Chemistry Lab Team -
Jill Gregory and Lisa Peterson
Outstanding General Chemistry Lab Performance -
Valerie Lemmons
Organic Chemistry Award - Laura Roberts
Organic Chemistry Achievement Award -
Anne Berry and Rachel Gambulos
DFW/ACS Outstanding Student Award -
Mallika Doss
Analytical Award - Lauren Lahey
Dr. Pepper/Lazenby Award - Brooke Hyatt
Petersen Scholarship - Lauren Lahey
Graduate Research Achievement Award - Drew Vogt
Jeskey Scholars -
Michelle Adams, Leigh Klaus, Zach Laucis, Debbie
Montenegro, Alexandra Pappas, Rajiv Parmar, Erica
Ramirez, Nicole Schultz, Myomi Tse, Lauren Lahey
Phi Beta Kappa -
Fiona Nicholson, Julie Kennedy, Brooke Hyatt, Hiba
Malik, Michelle Adams, Rachel Gambulos, Leigh
Klaus, Lauren Lahey, Francis Goldschmid, Laura Rob-
erts, Brian Lich, Nabila Choudhury
Meeting-in-Miniature -
Drew Vogt (graduate), Jennifer Cambre (graduate),
Ming Li (graduate), Hongmei Li (graduate), Ben Koh
(undergraduate), Brooke Hyatt (undergraduate)



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GIFT GIVING TO THE CHEMISTRY DEPARTMENT

As stated in the 2007 Chemistry Department's Vision Statement, "Chemistry is on the brink of 'revolution' and will play a key role in solving societal problems by providing the key tools, skills, and knowledge to answer the most important questions facing mankind, including the origin of life, mortality, communication, energy, environmental sustainability, and national security."

You can assist us in this quest by contributing to the Ph.D. program or to the established endowments, which will allow the Southern Methodist University Chemistry Department to continue to offer a solid foundation to the chemistry graduates, who will, like you, play a pivotal role in solving society's myriad challenges. If you would like to assist us, please make your checks payable to SMU Chemistry and note the fund to which you would like to contribute. The mailing address is:

SMU Chemistry Department
P.O.B. 750314
Dallas, Texas 75275

Thank You for Your Generosity!

The Jeskey Distinguished Chair in Chemistry

We are currently seeking an outstanding research scientist to increase the national prominence and the productivity of the department.



The Banewicz Fund

We have set up this memorial fund in honor of one of the most outstanding professors in the history of Southern Methodist University, John Banewicz. Notably, this fund has attracted a significant amount of money without any publicity. This money is primarily used for undergraduate scholarships. The short term goal is to raise a considerable amount of money to award an undergraduate Banewicz Scholarship and to eventually establish a Banewicz Endowed Chair.





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2007 INSTRUMENT ACQUISITIONS

- 500 MHz NMR Spectrometer
- GC/MS
- Fluorescent Spectrophotometer
- UV-Vis Spectrophotometer
- FTIR for powdered substances
- Microwave Oven for the Organic Teaching Lab - 24 reactions will run simultaneously. This is another Chemistry departmental "green" initiative.
- Atomic Absorption Spectrophotometer
- HPLC



As noted on a tablet erected in Dallas Hall honoring the "Knickerbocker Special Club," who graciously donated money toward the founding of the University,

*"Money is Made Immortal
When Invested in Men!"*

2007 - 2008

DEPARTMENTAL FACULTY & STAFF

Dr. Ed Biehl, Chair and Professor
Dr. John Buynak, Professor
Dr. Werner Horsthemke, Associate Professor
Dr. Ling Hua, Assistant Professor
Dr. Michael Lattman, Professor
Dr. John Maguire, Professor
Dr. Mark Schell, Professor
Dr. David Son, Associate Professor
Dr. Brent Sumerlin, Assistant Professor
Dr. Raj Vempati, Adjunct Professor
Dr. Patty Wisian-Neilson, Professor
Andrea Adams, Lecturer
Helen Babbili, Lecturer
Michael Esaili, Instrumentation Specialist
Alan Humason, Laboratory Coordinator
Dr. Jennifer O'Brien, Adjunct Lecturer
Laurieann Ram-Kern, Admin. Assistant
Hongming Zhang, X-Ray Crystallographer

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