# Ad Maiorem Poimanorum Gloriam

March 7, 2007

Dear Former Lab Members:

Nothing makes a professor prouder than to see former students doing well. Hearing from you has been a real joy!

Here is an update of the past few years:

(To watch the movies, you need the latest version of Quicktime Player, available for free: <u>http://www.apple.com/quicktime</u>).

Our house in New Orleans was flooded by Hurricane Katrina: <u>http://pojman.com/Washing\_Us\_Away.mov</u>

We moved to Baton Rouge after the storm and spent most of the year there. John Jr. and I had a great time, as I discovered that he liked to fish. I LOVE to fish. We took up bass and carp fishing with a vengeance.



Common carp caught in Chippewa Lake, Ohio. Bass caught by John Jr. in Folsom, LA

http://pojman.com/Baton Rouge Spring2006 Book.mov http://pojman.com/carp/Carp.html http://pojman.com/bass/bass.html

John Jr. was featured in the August issue of the American Carper:



We moved back to New Orleans in late July and are renting a house Uptown near Tulane University. John Jr. started pre-kindergarten. I am on sabbatical for the entire year, which affords me much time with John Jr. and time to pursue professional objectives (see below) and two non-fishing hobbies: radio-controlled hovercrafts and collecting pocket protectors. My collection of the latter now numbers over 500! I am scanning them all for the world's largest on-line pocket protector museum.

# Chemist

Do you like to cook? When you cook you use chemistry. Chemistry is the study of substances and how they change. You might not want to eat all the ingredients separately. After they are mixed and baked, however, they change. Then they taste just right.

Chemists also study the properties of substances. Materials differ, for instance, in their ability to mix together. Honey dissolves in water. Vegetable oil does not. These properties interest Dr. John Pojman. He is a chemistry professor at the University of Southern Mississippi doing research for NASA. Dr. Pojman directs experiments that

> are done in space where gravity won't interfere. He and other scientists are developing experiments to find out more about the ways that liquids mix together.

Chemists earn a degree in chemistry. Then they work for companies that make food, plastics, medicines, and other products.

# Zone Take-Home Activity

Get permission to mix some cooking oil and water. How well do they mix together? What does the mixture look like? Predict how well they would mix together in space.

Dr. John Pojman directs experiments with fluids in low-gravity conditions.

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Career

#### Research

The frontal polymerization work is going well. We achieved spin modes in a spherically-propagating system. This project goes back to 1992. Marcus Molden, Kayce Leard, Sam Popwell and Dionne Fortenberry worked on it over the years. Burcu Binici from Turkey got it to work using some tricky chemistry we learned from Professor Hoyle. The work was featured on the cover of the *Journal of Polymer Science* 

http://www.pojman.com/journal\_covers.html

We, along with Professor Hoyle, have a patent pending on a frontally-cured wood putty.

You can see that it is so easy to do a five-year old can do it! <u>http://pojman.com/FP-wood-putty.MOV</u>

We are also working on measuring the effective interfacial tension between miscible fluids. We developed an experiment for the International Space Station using Russian honey and water, called Miscible Fluids in Microgravity (MGMG):

http://www.pojman.com/MFMG/MFMG.html

Using spinning drop tensiometry, we have been able to demonstrate that an effective interfacial tension exists and can cause macroscopic fluid flow. The work was published last year in *Langmuir*. We have started work with microfluidics during my sabbatical.

# Outreach

Although our NASA experiment was cancelled, we have done some fun outreach including a television show, radio show and a feature in a grade school textbook.

# http://pojman.com/News.html

Student did their own microgavity experiments and were featured in Chemical and Engineering News

http://pubs.acs.org/cen/education/7940/7940nasa.html

We recently published a work based on their investigations:

Zoltowski, B.; Leard, K.; Carter, N.; Budzinski, K.; Ainsworth, W.; Pojman, J. A. "The Role of Gravity in the Motion of Plasma Arcs inside 'Plasma Balls': An Investigation in the Nasa Reduced Gravity Student Flight Opportunities Program," *Microgravity Sci. Tech.* **2006**, *XVIII*, 39-42.

# Keep in touch!

Please keep in touch! Let me know about personal and professional triumphs...or just drop me an email to say "hello". And if I can ever be of assistance, let me know.

I am currently finishing my Masters degree at Florida State University in Inorganic Chemistry, and I work for the Florida Department of Agriculture and Consumer Services, Bureau of Petroleum Inspection. In March, I will begin a new job with Champion Technologies in Lafayette, LA as a field chemist. My job will be to travel to oil rigs to troubleshoot formulation problems with the production chemicals that Champion sells.

# Tsega Alemu (B. S. 2006)

I am currently working for Shell Oil Co. as Engineering Tech/Production Chemist in Houston, TX. Although that is my title, I am working as a production engineer, in which I have five wells (in South Texas) that I produce and optimize their production. I am also working on my master in Petroleum Engineering at the University of Houston, and plan to graduate Fall 2009.



# David Arrington (B. S. 1997)

After USM, I was accepted to the PhD program at the University of Alabama. I worked there under the tutelage of Dr. Shane Street, studying surface science and materials chemistry. Although I am currently still working towards the terminal degree, I accepted a position as an Assistant Professor of Chemistry at Troy University (Dothan campus), starting in fall 2005. In the Spring of 2006, I was selected to give the John Woodham Memorial Lecture series presentation. I also received the SGA Teacher of the Semester award in the Spring 2006.



#### Burcu Binici (visitor, 2004 – 2005)

My major is chemical engineering. I finished the university on 29 June 2004 and I came to USM, Pojman Lab, on 15 October 2004. I worked in there for one year. We worked on frontal polymerization. It was great experince for me.

When I came back to Turkey, I started doing master. I have been doing master on chemometre and statistic subjects in the University of Kocaeli, Chemical Engineering Department, and also I got a job in the National Metrology Institute (UME) on 15 May 2006. It's a part of TUBITAK (Scientific and Technical Research Council of Turkey). I have been still working and doing a master's degree. During this period I got many training as Expression of Uncertainty, General Metrology, Metot Validation, Measurement of Uncertainty in the UME and Element2/XR Operator Training in the Bremen,Germany, from Thermo Electron Corporation company.

Now, I have been planning to finish master, to do Ph.D and be an expert in my work in the future.





Images of Burcu's university

My aspirations following undergraduate studies at USM were to further enhance my scientific knowledge, and that brought me to Orlando, Florida, the home of Mickey Mouse and the University of Central Florida's Chemistry and Nanoscience Department (http://www.nanoscience.ucf.edu/index.html (http://chemistry.cos.ucf.edu/). I am currently pursuing a PhD under Dr. Andre J. Gesquiere here at UCF. Our research involves the detection of photons emitted by single molecules and nanoparticles. The focus of our research is nanoscale photonics; or the imaging and spectroscopy of nanomaterials for energy applications, and biological systems. To address these biological challenges, our projects utilize a multidisciplinary approach (organic synthesis, cell culture, and analytical nanoscience). We apply nanoengineering techniques such as optical imaging with single molecule fluorescence, to unravel the mysteries of cellular biophysics. Ultimately, we believe monitoring single molecule transport and fate at the cellular level will result in advances in medical science and treatment options particularly in cancer research.

Recently in a collaborative study the UCF faculty performed biophysical and toxicity experiments that conclude there is substantial evidence of non-toxic bioconjugated water soluble nanoparticles for broad range of biological and environmental applications.

I would also like to cordially invite any interested faculty or students to come to UCF and share their research thoughts with our group as a visiting guest of the Nanoscience Department. The current student population here is 46,000, and UCF is the fastest growing university in the country. Funding is now in place for a world class medical school and research facility with state of the art facilities and instrumentation.

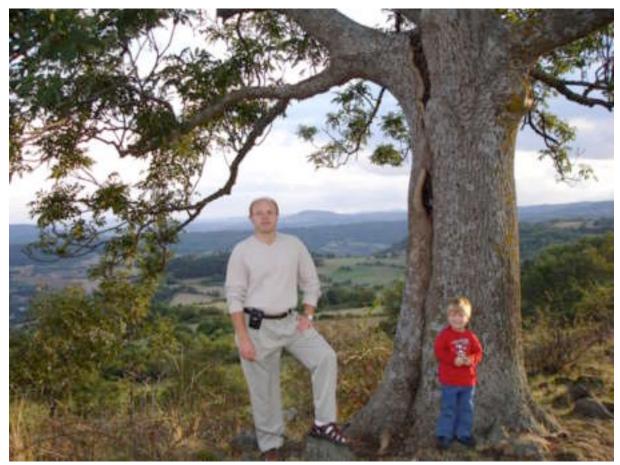
Yuri Chekanov, Ph. D. (Postdoctoral Researcher, 1996, 1998 – 2001)

After I finished my work at Dr .Pojman's lab at USM, I joined Michelin America's Research and Development (MARC) in April 2001. MARC is located in Greenville South Carolina not far from Clemson University. First four years at Michelin I have been working on the research and development of the new textile materials, which are used in tires as reinforcement. One of my projects was collaboration with Clemson University on the morphology of the creep resistant textile cords.

In summer 2005 I have started my expatriation assignment in Clermont-Ferrand, France in the Michelin's Centre for the Research and Development. In my new position I will have to learn about rubber structure and properties relationships first, in order to design new materials for the tires.

There have been some changes in my personal life too. My son Andrew was born in September 2002 in Greenville.

I wish John, his family and all my former colleagues at USM all the best in their careers and personal life.



2005-09-11 Yura and Andrew on plateau Georgovia, Clermont-Ferrand, France



2006-08-10 Yuri with pike in Karelia



2006-11-18 Galina Andrew and Yuri



2006-12-26 Yuri & kids near Louvre in Paris.

# Jennifer Coleman (B. S. 1998)

I am working at Mississippi Power Plant Daniel. I have been here for eight years and hold the title of senior chemist. At the plant, I am active in the safety committee where I hold the position of chairperson.

I collaborated in the design of our new efficient water treatment plant.

I have been married now for 10 years to Stephen Coleman. We have a 4-year-old girl named Alexandria. I am active in my church where I teach Sunday school. My husband and I have traveled abroad and since our daughter has been born we have taken a couple of trips to Disneyworld.



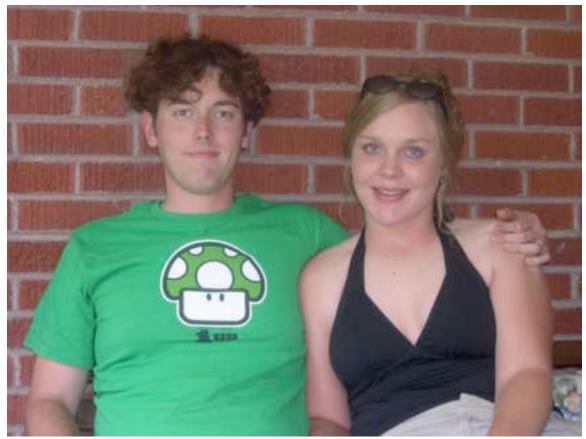




#### Bonnie Wells (B. S. 2003, née Cook)

I currently am finishing my Master's in mycology in the plant pathology department at Mississippi State University. I have a soybean pathology focused project entitled, "Evaluation of diflubenzuron (Dimlin®) as a fungicide to control the frogeye leaf spot pathogen, *Cercospora sojina*, and associated pod and seed mycobiota of soybean." Diflubenzuron is a commonly used insecticide with reported potential to control *C. sojina*. If in fact diflubenzuron has fungicidal efficacy against *C. sojina*, soybean producers could use only one control for both insects and frogeye leafspot and cut back on the amount of potentially hazardous chemicals supplied to the environment! Another part of my project will be focused on using PCR and other molecular techniques to identify the specific races of *Fusarium* and *Diaporthe/Phomopsis* pathogenic on soybean in the Mississippi Delta.

For the past 3.5 years, I have also been employed as a Research Associate in the plant pathology department at MS State's Delta Research and Extension Center in Stoneville, MS. In May 2005, I married Robert Wells, the love of my life I have been dating since I was 19. He is also employed at the Delta Research and Extension Center as a Public Relations Practitioner. We live in Leland with our family of rescued cats and dogs. When I am not in the soybean fields or in the lab, I enjoy photography, public speaking, organic herb and flower gardening, reading, running, traveling, and spending time with Robert. I am now in the process of exploring my PhD opportunities. It's a big world with infinite possibilities!



Bonnie and Robert Wells

#### Pam Corder Miller (B. S. 1994)

After graduation in Dec. 1994, I went to work at the Chevron Pascagoula Refinery as a project technician in March 1995. Chevron was pursuing new technology in the production of paraxylene and had built a miniature test facility as part of a joint project with the French Petroleum Institute. I worked for the duration of the project and was subsequently taken on by the refinery's main laboratory as a quality control technician in Sept. 1996, where I have tested all aspects of the refining process from crude oil to environmental water and air. In my new position as Quality Control Chemist, I will be responsible for all aspects of the laboratory quality control program. This includes maintaining our ISO certification and our environmental certification with the MS Dept of Environmental Quality and the EPA as well as maintaining some of the instruments in our labs (we have 8). I look forward to the challenges that I know await me in my new job.

On a personal note: My husband's name is Frank, and we are currently living in Escatawpa, MS, with our dog, Katie – who my husband threatens to kill regularly for digging up the backyard. We have no c h i l d r e n, y e t.

I spent 1991 to graduation in 1992 as an undergrad researcher (Stirring Effects in the B-Z reaction).

Since graduating from USM in 1992, I completed my internship with "what was at the time U.S. Customs as a forensic chemist. My duties at Customs included performing analytical and other chemical analyses on a variety of chemicals, "controlled substances, and various consumer products.

I left Customs in August of 1992 and began a career as a forensic chemist with the Drug Enforcement Administration (DEA). I worked at the DEA Laboratory'in Dallas, TX as a forensic chemist and eventually a senior forensic chemist for eight years. I left the Dallas'DEA laboratory and transferred to the Miami DEA laboratory as a supervisory chemist. I was a supervisory chemist for three years in Miami and then in 2002, I transferred to DEA headquarters in Washington, DC, as a'program manager. I spent a little over four and a half years as a program manager, and chemist inspector. In December'2006, I was promoted to the position of''Associate Laboratory Director of the Miami DEA laboratory.

Additionally, I married Teresita Robinson in February 1993. We now have a 12 year-old daughter, Brianna, and a 10 year old son Bryton.

#### Gina Egan (B. S. 1995)

I graduated from USM in December 1995, and I worked in your lab from August 1995 until June 1996. Upon graduating from USM, I chose to attend The Pennsylvania State University for an advanced degree. For five years, I worked under Dr. Thomas Mallouk participating in materials' chemistry based research. I had the opportunity to work on a variety of research topics including using nanoporous polymer and metal materials in the development of new HPLC column-packings and potential photonic crystal applications. I completed my doctoral thesis in 2001.

After completing my thesis, I worked for two years for Mallinckrodt Baker, Inc., home of the J.T. Baker brand of reagents. I worked in the research department where I developed applications for J.T. Baker's solid phase extraction and HPLC media. I then participated in the post-doctoral visiting scientist program in the Research Unit of the Federal Bureau of Investigation's Laboratory Division in Quantico, VA. I was then hired as a full-time Forensic Chemist in the Chemistry Unit of the FBI. As a forensic chemist, I performed analysis on forensic samples using various analytical techniques ranging from wetchemistry to state-of-the-art instrumentation.

Currently, I am an instructor at Johnson County Community College in Overland Park, KS. Of all previous applications of my degree, I have found this to be the most fulfilling. I find interacting with the students and sharing my knowledge very enjoyable. It is most exciting when a student is truly interested in a topic and I notice they suddenly "get-it."



Dr. Evstratova returned to teaching at the Rostov State Pedagogical University, Rostov-on-Don, Russia. She is currently on maternity leave.

"My life is devoted to my Little Star Sonya. She is 20 months old."



# Dionne Fortenberry (Ph. D. 1998)

When I left USM in 1998, I took a teaching postdoctoral position at Hobart and William Smith Colleges in Geneva, New York. I stayed there until 2000 when I took a tenure-track position at Mississippi University for Women. My teaching responsibilities include General Chemistry, Introduction to Chemistry, Quantitative Analysis, Instrumental Analysis, and Introduction to College Life as member of the Advising Corps. I have also taught Introduction to Polymer Science as a special topics course.

Since joining the faculty at MUW in 2000, I have been promoted to Associate Professor (with tenure). I am currently the senior Chemistry faculty member and the Program Coordinator for the Physical Sciences. I have chaired two search committees and served on the search committee for a Provost/Vice-President of Academic Affairs. For the past three years I have served on the Undergraduate Curriculum Council. This year I am chairing the Council. In addition to serving the university community, I have also served as Chair of the Chemistry and Chemical Engineering session at the Mississippi Academy of Sciences.

Since joining the MUW faculty, I have participated in summer research in Dr. Pojman's lab. This summer I will be participating in a research project for an SRF grant at Mississippi State University with Dr. Alicia Beatty. I hope to continue this collaboration, as it will benefit both our institutions.

I truly appreciated my time as a graduate student in the Pojman lab. I use lessons I learned there everyday in my teaching, my research, and my interactions with students and other faculty.

#### Nicole Gill (Summer Research Student, 1995; Ph.D. 2002)

(Editor's note: Nicole worked in my lab for a summer and then completed her Ph. D. with Professor Joe Whitehead.)

After graduating from USM in the Fall of 2002, I went to LSU to post-doc for Dr. Isaiah Warner. In 2003, I accepted a analytical chemistry position at Schering-Plough corporation in New Jersey. The group I am in does not develop new drugs or release products; instead, we are trouble shooters for current products that are already on the market. If there is a problem with how a product is tested, then we have to resolve the problem. These past 3.5 years have been challenging because I switched fields from polymers to pharmaceuticals, but it has been a good learning experience. In December 2006, I got a promotion from Senior Scientist to Associate Principal Scientist!

In 2005, I became a proud condo homeowner. I bought a one floor, two-bedroom condo with a detached garage and detached basement, and after ~344 more payments it will be mine! What I really like about this condo is the garage, which ensures that I will not have to shovel snowoff my car with these crazy winters.

Since being out of graduate school, I have had the time to explore other activities outside of chemistry! I am member of the Schering-Plough bowling league, and to date my high score is 155! I have joined the clarinet section of a local community band where we give about three concerts a year. Also, I finally learned how to play Mah Jongg.



#### Jelani Griffin (Summer Undergraduate Research Student, 2003)

After my appointment at USM I began research at Jackson State University, my undergraduate institution, under the mentorship of Dr. Ming-Ju Huang. I looked at the structural and theoretical studies of 2-methoxy-2-phenylacetophenone by NMR and computational chemistry. While working on my undergraduate degree I also began working on my masters at Jackson State University in which my thesis topic was the *Role of Inert Gas on Low Temperature Nanodiamond Chemical Vapor Deposition*. The following summer I performed at the University of Minnesota at the Army High Performance Computing Research Center under the mentorship of Dr. Jiali Gao. We studied the reaction mechanism of the Severe acute respiratory syndrome (SARS) main protease. Next, at the University of California, Berkeley as a graduate student under the mentorship of Dr. Richard Saykally, I looked at the unique chemical and physical properties of liquid methanol. Finally, at Oak Ridge National Laboratory under the mentorship of Dr. Joanna McFarlane I looked at the physical properties of alternative fuels.

I have also attended and presented at a host of scientific conferences in which I was a poster winner at AGEM and MGE@MSE Student Research Conference. I was also invited to attend the ICYS Summer School on Nanomaterials in Tsukuba, Japan. I am also first author on a published paper in Nanotechnology. I was also a National Science Foundation/Louis Stokes Alliance for Minority Participation Bridge to Doctorate Fellow at Jackson State University. I am currently working on my doctorate in chemistry at Georgia Institute of Technology in which I am a GEM and Cherry Emerson Fellow.



Merry greetings from fair Britannia!

Hope all is well with you across the pond, things here are swimming along nicely so here's my quick update:

Upon completing my year at USM, I returned to England for the final year of my chemistry Masters degree at the University of Bath (south-west England). I graduated with a first class degree in July 2006 and decided to spend that summer relaxing and doing a spot of travelling around Europe. Having studied chemistry for 4 years, I decided that I did not want to persue a career in science and that I was ready for something different. In September I started my job in the Bristol office of PriceWaterhouse Coopers, a large financial services firm. I am an auditor, working exclusively with insurance companies and banks. I am also at college part time training to become a chartered accountant. So far the work has been good but the studies are hard going, however it has been lovely to finally earn some money instead of being a poor student!

I am hoping to come back to Mississippi this summer to visit old friends and stock up on grits! Hopefully I'll be able to drop in to the lab when I'm there.

Best wishes to everyone from me,

Harriet





James "Jimmy" Helt (Summer Research Program, 6/1997 – 8/1997)

James M. Helt, Ph.D. P.O. Box 92957-M2/271 Los Angeles, CA 90009-2957 james.m.helt@aero.org Tele: 1(310)336-0419

3/2006 - Present The Aerospace Corporation, Member of the Technical Staff (MTS), Micro/Nano Technology Dept., Space Materials Laboratory. For an overview of what our department is doing click on the link. http://www.aero.org/publications/crosslink/fall2006/04.html 10/2005Ph.D. Polymer Chemistry, The City University of New York, College of Staten Island and the Graduate Center Dissertation Title: Exploring Nanoscale Surfaces and Interfaces Research Advisors: Dr. James D. Batteas and Dr. Charles M. Drain 2/2004 M.S. Chemistry, The City University of New York, College of Staten Island and the Graduate Center Guest Scientist, National Institute of Standards and Technology 8/2002 - 4/2004 Surface and Microanalysis Science Division; Gaithersburg, MD 1999 B.S. Chemistry, The City University of New York, College of Staten Island

#### Publications:

- J. M. Helt and J. D. Batteas, "Mica Surfaces: Charge Nucleation and Wear" in *Dekker Encyclopedia of Nanoscience and Nanotechnology*; Schwarz, J. A., Contescu, C. I., Putyera, K., Eds.; Marcel Dekker Inc.: New York, 2004; vol. 3; pp 1947.
- 2. J. M. Helt, C. M. Drain and J. D. Batteas, "A Benchtop Method for the Fabrication and Patterning of Nanoscale Structures on Polymers. *J. Am. Chem. Soc.* **126**(2), 628-634 (2004).
- 3. J. M. Helt and J. D. Batteas, "Surface Chemistry: Scanned Probe Microscopy," invited chapter, *Chemistry*, ed. J.J. Lagowski, McMillan Reference, USA, 2004; vol. 4; pp 185-189.
- 4. J. M. Helt and J. D. Batteas, "Wear of Mica Under Aqueous Environments: Direct Observation of Defect Nucleation by AFM." *Langmuir*, **21** (2), 633-639 (2005).
- 5. J. M. Helt and C. M. Drain, "Stamping Patterns of Insulated Gold Nanowires with Self-Organized Ultrathin Polymer Films." J. Am. Chem. Soc. **128**(29), 9371-9377 (2006)
- 6. J. M. Helt and J. D. Batteas, "Implications of the Contact Radius to Line Step (CRLS) Ratio in AFM in Nanotribology Measurements." *Langmuir*, **22** (14), 6130-6141 (2006).



Salt Lake City Utah - Feb. 2007



Salt Lake City Utah – Feb. 2007

# Victor Mikhailovich Ilyashenko (Postdoctoral Researcher, Fall of 1993 till Fall of 1996

I am a principal scientist/projects manager at IPG Photonics, Inc, for the development and application of high performance polymeric materials. Applications include encapsulations, protective and optical coatings and light management solutions. Materials : High temperature optical polymers (silicones, amorphous fluoropolumers and acrylics) and compositions tuned for the specific absorption, refractive index and temperature performance. The final product of our company is fiber optic lasers and highpower industrial fiber optic lasers as well as telecom amplifiers and components.

#### Emma James (Exchange Student, 2005)

After I left USM I completed the final year of my chemistry degree at Bath University, graduating in July 2006 with first class honours. I spent the summer travelling Asia before returning to Bath University in the fall to start my PGCE Science course - this is a one year course equivalent to licensure in the States. I am currently on my second placement in the Cotswolds and enjoying the challenge. After leaving USM i continued to play rugby and now play for Bath (www.bathrugby.com). Last summer we traveled to the European Championships and finished 3rd against strong opposition. I also still play hockey and last year we won the national championships....very exciting!! I no longer run track regularly, instead concentrating on coaching. I currently coach two groups of 20 youngsters aged 5-13 and i also work for England athletics as the regional combined events co-ordinator for the south west. I have been very proud this year to see three members of my squad receive international honours. I am currently in the middle of trying to apply for jobs whilst also planning a seven-week trip to Australia this summer...life is never dull!



Emma – Far Left Bottom Row



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Emma Far right
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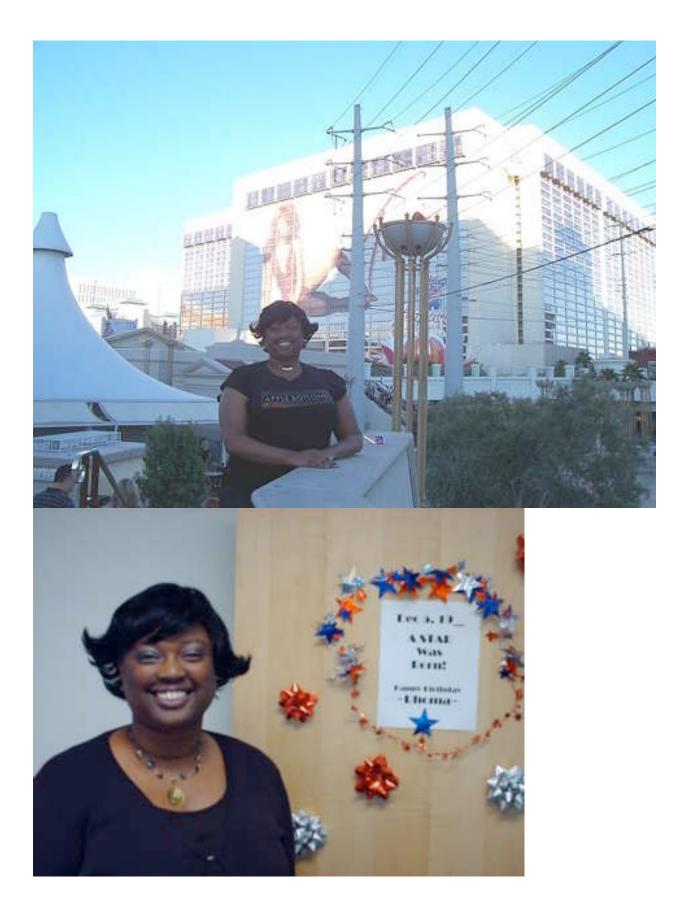
#### Rhoma Johnson (B. S. 1992)

Rhoma was one of the inaugural member of Dr. Pojman's lab at USM. She worked as an undergraduate research assistant during her junior and senior years (1991-1992), and her Honors College thesis title was "Convection-fee Fronts in the Chlorite Oxidation of Sulfite". After graduation, she attended Emory University in Atlanta, GA as an Emory Minority Graduate Fellow, where she earned a Ph.D. in Inorganic Chemistry. After working briefly as a Post-Doctoral Fellow at Emory, Rhoma came to Washington, D.C. as a US Department of Health and Human Services (DHHS) Emerging Leader Fellow, in a highly competitive program established to attract to the federal service outstanding men and women from a variety of academic disciplines and career paths who have a clear interest in, and commitment to, excellence in the leadership and management of public policies and programs. Training for this program included managing projects at Agency for Healthcare Research and Quality (AHRQ), National Institutes of Health (NIH), and Centers for Disease Control and Prevention (CDC). Rhoma currently works as a Consumer Safety Officer with the Food and Drug Administration, where she develops policy for produce safety (e.g., pursuant to the recent outbreaks of foodborne illness linked to spinach and other produce) and for chemical contaminants such as lead in food, and implements policy for domestic and imported produce, juice, and bottled water.

Rhoma is an active member of Montgomery County (MD) chapter of Delta Sigma Theta Sorority, Inc., where she is the chairperson for the Science and Everyday Experiences (SEE) Committee, which implements an initiative funded by the National Science Foundation. The SEE Initiative helps parents and caregivers of low-income African American elementary and middle school age children (k-8) develop effective ways to support children's informal science and mathematics learning experiences. She is also the assistant youth director of Clinton AME Zion Church in Rockville, MD, and serves as a mentor and free tutor to several youth in Montgomery County, MD.

Rhoma is 36, and is single with no children. Her loving mother and grandmother live in her hometown of Greenville, MS. In her spare time she enjoys reading, cooking, foreign and independent films, nature walks, and exploring the rich culture and history of Washington, DC. She is writing a novel about three generations of women growing up in the Mississippi Delta region, and her dream is to one day become a famous "Mississippi author".







#### Chris Jones (B. S. 1993)

Let's see, where to begin? I worked in Dr. John McDevitt's research group at UT. My research focused on studying thin film high temperature superconducting devices. We were trying to induce superconductivity from YBa2Cu3O7 into a conducting polymer material via the proximity effect. It involved depositing the conducting polymer onto a lithographically patterned superconducting film and measuring IV curves at low temperature. Unfortunately, we were never successful in observing tale-tell signs of this effect. A second project I worked on involved corrosion studies of these high temperature superconducting devices in which we developed material changes in the crystal structure to improve the corrosion resistance.

In 1998, I met Shannon Melms at a Chemistry fraternity party (Alpha Chi Sigma). She was the best friend of one of my good friends from the department. An art major, who definitely stood out at this party full of chemists. We dated for a few years and got married here in Austin in 2000."

I finished my graduate research in 2000 and was heavily recruited by a startup semiconductor company in Dallas, TX named Clarisay. I was a Materials Scientist working on improving surface acoustic wave (SAW) filters used in wireless communications. Unfortunately, I left UT before I finished my dissertation and expected to finish it within 3 months. With the demands of the startup, I did not complete it or my defense in a timely manner. It is something I regret not finishing my advanced degree especially after all the time and effort put into it. My hope is to one day go back and complete my PhD, but most likely, not in the same area I studied. "

AtClarisay, I developed a wafer bonding process using Silicon and our Lithium Tantalate SAW device wafers which led to a wafer level package for our products. This allowed us to eliminate the use of the expensive bulky high temperature co-fired ceramic packages we were currently employing. The miniaturization that this afforded gave us a key advantage over our competitors which led to Motorola choosing us to integrate into one of their SAW filter modules... Unfortunately, after three years, the company funding ran out and eventually led to the dissolve of the company. It was a great experience for me even with the bad outcome at the end.""

I was fortunate to be in a lead R&D role at Clarisay to have worked with many companies and travel to our foundries in California and France. I had a side project that was attempting to use imprint lithography to improve the SAW device patterning uniformity. This project was with Molecular Imprints based in Austin. They were a new startup looking to expand their markets and get some key results showing the benefits of imprint lithography. They had just received their second round of funding and were looking to expand their employee base exactly the same time of Clarisay's demise."

I started at Molecular Imprints at the beginning of 2004. I am an Applications Engineer that has developed imprint processes for a variety of device projects. I am currently leading our efforts in the LED field, patterning photonic crystal structures on the surface of working LED devices to improve their light extraction efficiency. I routinely give presentations at optical and LED conferences and just recently returned from Photonics West in San Jose where I presented my first invited talk. Since we are a startup, I also serve many other roles at the company. I travel to our new customers and train them on the operation of our imprint tools as well as help them develop imprint processes on their unique devices/substrates. I sometimes travel with our Sales group to give technical presentations to potential customers and answer any of their questions about the technology..."

I look back on my time at USM and working in your group very fondly. And I also can't believe it has been over 14 years since I graduated USM!!!



Chris and Shannon under the UT Tower after the football team won the National Championship over USC



Training Zeiss on the operation of an Imprio imprint tool

# Zachary "Zack" Kemp (B. S. 2005)

I just got married on January 13, and we are living in Magee. My wife Shelley and I were in Breckenridge, CO skiing and snowmobiling for a week on our honeymoon. I definitely suggest visiting if you haven't already.

I am still employed with Hybrid Plastics, Inc. in Hattiesburg, and in January Shelley began teaching 4<sup>th</sup> Grade at Simpson Central Elementary.

Zachary Kemp Production Chemist Hybrid Plastics, Inc. 55 W.L. Runnels Industrial Drive Hattiesburg, MS 39401 (601)544-3466 zkemp@hybridplastics.com



### Eugene Klimchuk, Ph.D. (Visiting Scientist)

About myself I can inform only that nothing was changed as in the theme of my work (organic SHS), so in its organization. I have some new results, about which I could inform you later, if it is interesting for you. In our institute there were some changes, about which you can learn on the ISMAN site. Main is that Merzhanov has left the post of the director in connection with his achievement of age limit for this post, and new director has a little bit other interests, than SHS. Besides, you probably know, that a reorganization of Russia science is carried out, and it is not yet clear, what it will result.

### Shanna Nesser (née Lavergne, B. S. 2006)

Since I left the lab I have been working on my Master's in Forensic Science at Southern Miss. I am in my second semester. While working on my degree I have been teaching labs for Forensics. I have also recently gotten married. I worked in the Pojman Lab from Fall 2005 until Summer of 2006 when I graduated from the University with my degree in Chemistry.

I am attaching a picture of John, Christian, and me.



Kayce Leard Aultman (B. S. 2003; M. S. 2005)

I worked in JAPlab from 2001-2005.

Since leaving USM, I have been teaching general chemistry I, general chemistry II, and physical science at Northwest Mississippi Community College in Senatobia. I enjoy teaching very much, as it gives me the opportunity to continue learning more each day, and I take great pleasure in seeing my students understand the material I present to them. I will be taking the organic chemistry courses offered at NWCC next year in hopes of being able to teach it myself in the future. Once I feel that I have finally conquered organic chemistry, I still have dreams of going back to graduate school to earn my doctorate in chemistry. I have developed a real passion for chemistry and want to make learning more about it a continuous process in my life.

My husband, Jeremy and I are living in Senatobia in faculty housing at the Northwest campus. He is currently doing very well in his career as a financial analyst for Goldstrike Casino in Tunica, MS. We currently have no human children, but are overrun with animal ones.

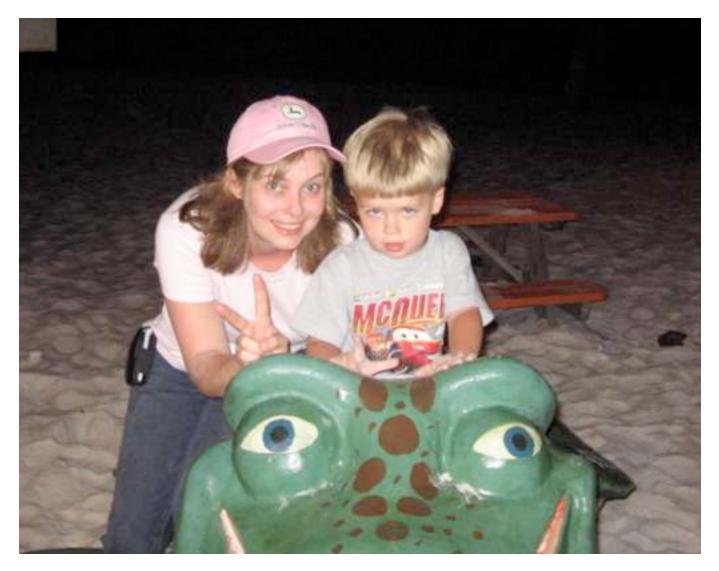


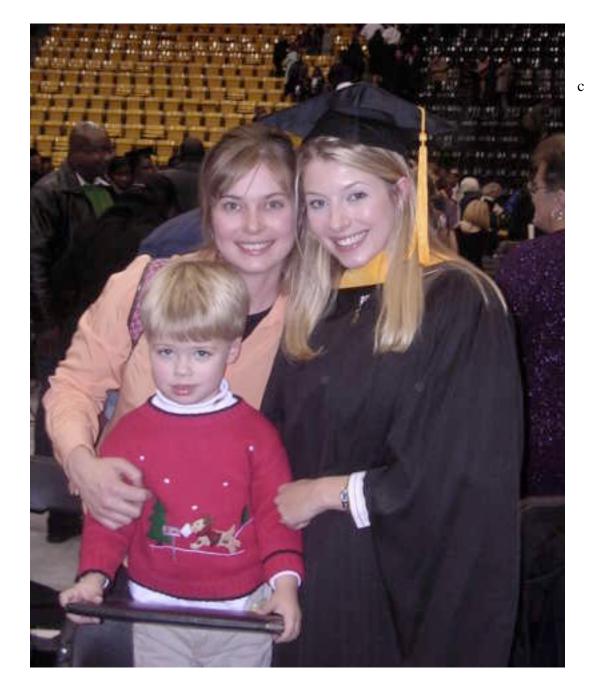


## Danna Leard Rehms, Ph.D. (B. S. 1992)

After USM, I attend MIT to study for my doctorate in physical chemistry under the direction of Professor Mario Molina, the Nobel Laureate who predicted the negative impact of chlorofluorocarbons on the ozone layer. I received my doctorate in 1997 and". From 1997-1999, I developed an aerosol mass spectrometer as a post-doctoral research associate for Boston College and Aerodyne Research, Inc. in Billerica, Massachusetts. I returned to Mississippi in 1999 as a research chemist for Alcoa World Chemicals.

Today I am the Technical Manager for the Adsorbents Division of BASF Catalysts LLC. 'I manage product development and business development for aluminum oxide adsorbents and catalyst precursors from our site in Vidalia, LA. 'I also am an Adjunct Faculty member at Copiah-Lincoln Community College in Natchez, Mississippi where I teach Physical Science. 'I currently reside in Natchez, Mississippi with my four-year-old son, Lane.





Danna with her son Lane and sister Kayce.

Lydia Lee Lewis (Ph. D. 2003)

Member of the JAP lab from Spring '97 to Summer '02.

I'm currently an assistant professor of chemistry at Millsaps College in Jackson, MS. (I'm teaching at my alma mater's big rival, so my blood flows purple now instead of blue and gold.) I teach General and Physical Chemistry as well as one section of the college's Liberal Studies course (a writing and discussion course for freshmen). I and three of my undergraduate students are currently doing research on determining the diffusion behavior of high-molecular-weight polymers through laser line deflection (Weiner's method) to improve current isothermal frontal polymerization models.

In my spare time, I enjoy visiting my family in South Mississippi and teaching my nephew how to catch lizards and bring them inside to his mom. I also help with the college ministry at First Baptist Church of

Jackson as well as helping lead a campus Bible study here at Millsaps. Life is good and rich! I've had the opportunity to visit several countries the past two summers (Tunisia in Northern Africa and Ireland) on vacation and loved them both (see attached pictures)! I don't recommend riding a camel, though.





After graduating from USM in the spring of 1995, I enrolled in graduate school at Louisiana State University. With a background in polymer chemistry, my initial intentions were to join one of the macromolecular research groups and continue my polymer studies; however, after hearing the research projects of one of the new faculty members, Dr. Robert M. Strongin, I decided to join his research group and study organic synthesis. My research focused on molecular recognition and design of three-dimensional electronic organic materials. One of the goals of my research was to synthesize a new class of precise-dimension conjugated cylindrical compounds, obtained by controlled organic synthesis methodology, that would embody soluble and functionalizable precursors/analogs of the fullerene tubules. Resorcinarenes with arylboronic acid moieties on the lower rim were synthesized as molecular scaffolds. Oligophenylenes were then attached to the resorcianrenes via Suzuki couplings. These resorcinarene compounds, having arylborinc acid moieties, were also used in the complexation of carbohydrate. To our suprise, these compounds were found to give a different colorimetric response in the presence of different carbohydrates. Our research was well received by the community, and I was listed as a co-author on seven publications and a patent.

After receiving my PhD from LSU in 2000, I accepted an offer from DuPont to work as a research chemist in their Nylon division located in Chattanooga, TN. At DuPont I conducted research on oxidative degradation of nylon 6,6 and investigated new antioxidant formulations. Chattanooga is beautiful and has some of the nicest people in the world, but I was miserable in Tennessee. After a year with DuPont, I decided to move to a more urban setting and accepted a job with the U.S. Patent and Trademark Office as a patent examiner in the Washington, DC area. Examining patent applications is very challenging and stressful, but I cannot think of another job I would rather have. I love DC.

I was in John's lab in the period between October and November 2000. It was my first time in the USA, one of my childhood dreams. It was a very interesting and exciting experience for both a scientific and personal point of view. I learnt the basis of Frontal Polymerization in that I consider the most important laboratory in the world for this kind of studies. Now, that topic is one of the most relevant in my research, here in Italy. John was very nice, and we discovered to have many common interests apart from chemistry; in particular, we discovered to have a real passion for Space (with the "little" difference that he has the possibility to take part to NASA programs and I cannot: I am so envious! :-) ). To be completely honest, there is something in John that I HATE: I cannot imagine how one can love snakes! What I love most, or better, what I love most by considering only things I can write here ;-), is Space; what I hate most are snakes!!!

Well, after those couple of months in America, back to Italy I started my studies on Frontal Polymerization being often in touch with John. We share a common point: trying to make this technique more visible and better known among the scientific community. Namely, together with my Italian group, we have proposed and studied new systems able to frontally polymerize (acrylates, epoxy resins, urethanes, etc.) and new potential applications (e.g. the consolidation of porous materials like stone, wood, paper etc.).

In the last period, we have focused our interest on nanocomposites with POSS, montmorillonite and other nanofillers.

Now, for what above it is obvious that I consider the first meeting with John one of the most important in my scientific and friendship life and for that I do express my sincere thanks to him.



#### *Tim McCardle (B. S. 1997)*

I graduated in 1997 with a B.S. in Chemistry and again in 1998 with a 2nd B.S. in Molecular Biology. During the spring of 1997, I was working on the senior research project which ultimately culminated in our co-patent on ascending frontal polymerization and functionally gradient polymers.

After I finished in 1998 I did a summer internship with Dr. Richard Miller who is a Pediatric Surgeon at the University of Mississippi Medical Center. I decided to go into the medicine. So I took the MCAT, interviewed, and I was accepted into the class starting in the fall of 1999.

During medical school, I decided to pursue pathology as my choice of specialty. At the end of medical school in the spring of 2003, I matched in pathology at Washington University in St. Louis, Missouri. I am currently finishing my residency, and I will start a one-year fellowship in surgical pathology in July 2007. I am currently applying for an additional year of fellowship in dermatopathology for the year following the surgical pathology fellowship.

My wife's name is Megan. We met during my final year at USM where she got her B.S. in microbiology. She is currently working at the St. Louis City Crime Lab as a DNA analyst (CSI stuff sort of). We both like living in St. Louis.

We have been married for eight years and are expecting our first child.



#### Brian McFarland (Ph. D. 2005)

Well, I am in my second year at the University of the Ozarks here in Clarksville, Arkansas. We are doing well here, bought a house about a year ago and are enjoying it. Jobwise, I teach organic I&II, biochemistry, quantitative analysis (analytical chem), polymer organic, and a spectral interpretation class. I currently am supervising 3 students on research projects, 2 in polymer chemistry and another who is doing work involving extracting the compound ergosterol from shiitake mushrooms.

On a personal level, we are pretty much just living a small-town life. We attend several campus events at U of O and at Arkansas Tech (where Heather works) for entertainment. We still have the 2 dachshunds that you met before. Oh, we went to Disneyworld on Christmas break and that was lots of fun :)."

That's about all I can think of right now. I only have a couple of pics, neither one of them good, but you can use them if you want. One of them is a pic of me in my office that U of O used for their website. The other is a picture of me and my student Nathan riding the Spaceshot ride at the Space & Rocket Center in Huntsville, AL (I am on the left).





I worked on complex oscillating chemical systems, polymerization coupled to oscillating reactions, and numerical modeling and simulations during my stay with Professor John Pojman from November 1996 to December 1997. The work appeared in the Journal of Physical Chemistry, the Journal of American Chemical Society, and Polymer Preprint of the American Chemical Society

I joined the laboratory of Professor Ronald Siegel, University of California, San Francisco in December 1997. Worked on stimuli-responsive polymers, hydrogels, hydrogel membranes, transport across hydrogel membranes, and the development of pulsatile hormone delivery devices. This work was continued at the University of Minnesota, Minneapolis with Professor Siegel. I co-authored four peer-reviewed papers and a book chapter in Polymer Gels and Networks. I received two international outstanding pharmaceutical paper awards jointly with Professor Siegel on this work. A US patent is also pending.

I was appointed as Lecturer in Chemistry (equivalent to Assistant Professor) in absentia at Panjab University of Chandigarh, India. I taught B.S. and M.S. physical chemistry laboratory classes for one academic year (2000-2001). Then, I moved to Canada and worked at Queen's University as postdoctoral fellow from January 2002 to August 2004. The work involved degeradable and elastomeric biomaterials, star copolymers, surface modification of biomaterials, implantable peptide/protein drug delivery systems for bone tissue regeneration. The work has appeared in Biomacromolecules (2004). Two more papers are in the process of publication. A US patent has also been published in October 2006.

I was again appointed as Reader in Chemistry (equivalent to Associate professor) in absentia at the University of Delhi, India. I taught macromolecules theory and physical chemistry laboratory classes for two academic years (2003-2005). I also gave an invited talk at Nano-Bio World Congress 2004 in Albuquerque, NM, USA.

After two years of teaching in India, I moved again to the United States in 2005 and joined the Penn state University College of medicine, Hershey as a postdoctoral fellow. The current work involves design and development of polymeric biomaterials for drug delivery and tissue regeneration applications, implantable hydrogels, polymeric nanogels, and cytotoxicity of biomaterials.



#### Vinh Nguyen (B.S. 2000)

Since the time that I graduated in 2000, I have had an opportunity to work for several companies. I started my career working for Resinall in Hattiesburg, MS as a research technician developing resins for the ink and adhesive industries. From there, I went on to work for Lithium Power Technologies, Houston, TX where I was a junior chemist assisting in the development power sources, i.e., lithium ion batteries and capacitors, for NASA, Armed Forces and public companies. And for the last four year, I have been with Celanese, Houston, TX working as a Synthesis and Application Chemist for the company Polyvinyl Alcohol division focusing on gas and oil sectors.

In addition to my employment with Celanese, the past couples of years, I have been a partner in two small businesses in Texas and Mexico.

# Rosie Parker (B. S. 2006)

Since graduating from The University of Southern Mississippi and leaving the Pojman Research Group I traveled to England on a six month work permit. With mostly luck, I managed to get a Laboratory Technician position with a Forensic Science company in the Toxicology department. For five months I learned what it means to be a Forensic Examiner and how criminal and coroners cases are handled, in the UK at least. I have'recently been accepted for a'research PhD in Biochemistry at the University of Bath in the UK which will begin near the end of 2007."

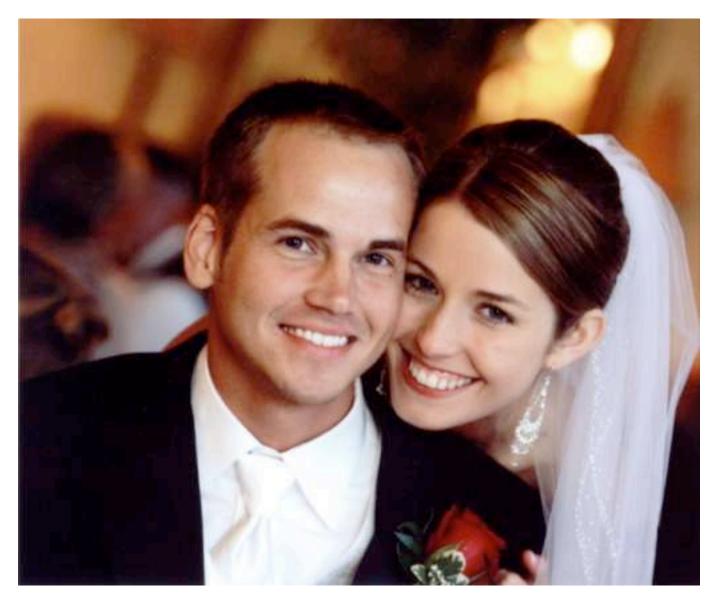
# Alford Perryman (B. S. 2006)

I am attending Jackson State University, pursuing a master's degree in chemistry."<sup>My</sup> current research deals with making gold nanoparticles, then linking the gold nanoparticles to conjugated polymers through synthesis. My expected date to graduate is May of 2008 with a Thesis master's degree.



### Sam Popwell (B. S. 2005)

Life after the JAP lab began with one of my biggest accomplishments—marriage to my beautiful wife Christy. We have since moved to Gainesville, Florida, where we are both associated with the University of Florida. I am currently pursuing a PhD in Polymer Organic Chemistry, and Christy, also a USM alumnus, is working as the Assistant Director of Development and Alumni Affairs for the College of Pharmacy."We are enjoying life in the Sunshine State and look forward to the exciting things to come.



#### Reade Quinton (B. S. 1995)

Reade Quinton, M.D. graduated with a Bachelor of Science degree in biochemistry in 1995. He entered medical school at the LSU Medical Center in New Orleans, where he received his M.D. in 1999. Reade then completed a five year residency in Anatomic and Clinical Pathology at the University of Texas Southwestern Medical Center in Dallas, Texas. Following residency, he completed a forensic pathology fellowship at the Southwestern Institute of Forensic Sciences (SWIFS) in Dallas. Aside from forensic pathology his areas of specialization also include neuropathology and pathology informatics (the application of computers and technology in medicine). He is an active member of numerous national forensic organizations, including the National Association of Medical Examiners and the American Academy of Forensic Sciences. Reade is currently a medical examiner at SWIFS and an assistant professor for the UT Southwestern department of Pathology. He lives in Dallas with his wife Kim and his 2 year-old son Logan.





#### Louis Somlai (summer research student, 1995)

I worked for Dr. Pojman the summer of 1995 as an undergraduate research assistant. Dr. Pojman and Dr. Mathias (polymer science) recruited me from the University of Calgary via the SURP program with some NASA funding. I spent a summer working in the polymer science bomb room working on frontal polymerizations with Ahktar Khan.

I returned to USM in the summer of 1997 and began pursuing my PhD. in Polymer Science with Dr. Mathias. I met and married Rie Peeler (PhD. Chemistry from USM under Dr. Creed). I defended my dissertation in January 2003. I completed a post-doctoral fellowship in polymer engineering at Case Western Reserve University in Cleveland, Ohio (Dr. Pojman's old stomping grounds) under the direction of Drs. Anne Hiltner and Eric Baer in the department of Macromolecular Science (Rie was also a post-doctoral fellow under the direction of Dr. Schiraldi). Upon completing our post-doctoral work we moved to Cleveland, Mississippi ("Big Cleveland" to "Little Cleveland"). Rie is now an assistant professor of organic chemistry at Delta State University. I work for Baxter International (Baxter Healthcare) as a principle engineer. We have two dogs (Maggie - a shepherd/black lab mix; and Alexus black standard poodle).

#### Felicia Stewart (B. S. 1999)

I graduated from the University of Southern Mississippi in December of 1999. After graduation, I moved to Decatur, Alabama where I later got a job working at NASA Redstone Arsenal. While at NASA, I worked with Dr. Steve Paley and Don Frazier researching Fiber Optics. I also continued my education at the University of Huntsville in Alabama to obtain a Masters Degree in Chemistry and Education.

On August 5, 2000 I married Kelly McCarty. He is also a former student of USM. We now have two beautiful children together, Eboni Felise (age 3) and Chase Alexander (age 1). Kelly is an international professional basketball player, therefore my career and education has been placed on hold for a season, and we travel with him. We have traveled to several countries in Europe and I am enjoying every minute of it!!!! I do not know what God has in our future next but I am ready for the ride!!!









# During my stay in your lab.

# Effect of Convection on a Propagating Front with a Solid Product: Comparison of Theory and Experiments

We studied ascending fronts of acrylamide polymerization in dimenthyl sulfoxide in which the reactants in solution are converted to a gel at higher temperature than the solution. We have calculated the stability boundary (the critical viscosity at which convection occurs) as a function of the front velocity. We found that in a two-dimensional system the presence of walls does stabilize the front compared to an infinite plane, but the shape of the boundary is not affected.

The experimentally determined boundaries differ significantly from the calculated ones [1], the experimental fronts being more stable, but the qualitative trend is the same.

The difference between the boundaries could be caused by uncertainly in the constants used in the calculations [2]. The shapes of the boundaries differ, and we propose this is caused by the temperature dependence of the viscosity, which is not treated in our analysis.

# **References:**

1-Gina Bowden, Marc Garbey, Victor M. Ilyashenko, John A. pojman, Stanislav E. Solovyov, Ahmed Taik, and V. Volpert, "Effect of Convection on a Propagating Front with Solid Product: Comparison of Theory and Experiments". **The Journal of Physical Chemistry**, Volume 101, Number 4, (1997) pp 678-686

2- Marc Garbey, Ahmed Taik, Vitaly Volpert, "Linear Stability analysis of reaction fronts in liquids". **Quarterly of Applied Mathematics**, 1996, Volume 54, pp 225-247

Period of the visit: 6/1995-8/1995

# When I left the USM

September 1995, I have obtained a position of Assistant Professor. July 2002, I have obtained my PHD in applied mathematics to civil engineering From Ecole Mohammedia d'ingénieurs. July 2006, I have obtained a position of PES =Professeur de l'Enseignement Supérieur= Professor (K. Allali, A. Ducrot, A. Taik, V. Volpert, **Convective instability of reaction fronts in porous**. Mathematical Modelling of Natural Phenomena Journal (accepted for publication) (2007).

( H. Belhaj, A Taik, D. Ouazar, Computing two dimensional flood wave propagation using unstructured finite volume method: Application to the Ourika valley. International Journal of Finite Volume (accepted for publication) (2006)

http://www.latp.univ-mrs.fr/IJFV/index.php?name=Downloads&req=viewdownload&cid=2.

K. Belhaj, D. Ouazar, A Taik, Unstructured finite volume method for modelling the wave propagation caused by the flood phenomenon: Application to the ourika valley . FVCA4, (July 2005),! pp 551-560

( A. Taik, M. Mouies, D. Ouazar, Hydrodynamic numerical simulation of the lake of Bouregreg using finite volume method. FVCA4, (July 2005),! pp 691-699





## Boon Teo (Visiting Researcher, 2003)

After leaving USM in June 2003, I completed my undergraduate studies with a BASc (Hons) in 2005 at The University of Melbourne (Australia). I took on postgraduate studies last year with the Sonochemistry Group at Melbourne University (to avoid the hectic working life!). My research focus is to synthesize metal/ polymer core shell nanoparticles with ultrasound irradiation. Of course, it hasn't been all work! I've been helping at out the local community, providing food for the homeless on weekends and enjoy going on trips around Victoria such as the scenic drive along the Great Ocean Road and been on hikes to some of the loveliest and pristine forests surrounding Melbourne.





Directeur de recherche au CNRS, France. Mathematical modeling in physics, chemistry, biology.



### Pauilin Wahjudi (B. S., 2000)

After receiving my undergraduate degree from USM, I continued my graduate study at the University of Southern California (USC). My works focused on the interface of tissue and material, where selective chemical surface modifications were carried out to improve tissue and/or cells adhesion. The research projects are part of the <u>Biomimetic Microelectronics System-Engineering Research Center (BMES-ERC)</u> at USC, specifically to support the development of retinal and cortical prosthesis. I am currently finishing my thesis and am expected to graduate this spring semester.

I would like to take this opportunity to thank Dr. Pojman and all of the former group members. As an international student from Indonesia, I gained a lot more than just research experience. The warmth welcome and friendship, as well as all the English practices and corrections, are truly missed.



My best friend and I in front of the statue of Tommy Trojan

### Matt Wasbrough (Exchange Student, 2006)

After leaving USM last summer I have returned to the UK to complete my undergraduate chemistry degree at the University of Bath, which will be finished in June. During this time I have continued research as part of my degree and am working in microencapsulation, which I first was introduced to in the Pojman Lab. At the end of this year I intend to start working for a PhD at the University of Bath, and will continue to research in the same area.

#### Randy Washington, Ph.D. (B. S. 1993, Ph. D. 1998)

At Southern Miss he majored in chemistry and pursued research on oscillating reactions in the laboratory of Dr. John Pojman. He was active in the American Chemical Society Student Affiliate Chapter and visited area high schools to present chemical demonstrations. After graduating in 1993 he was admitted to chemistry graduate program at Southern Miss, and he completed the Ph.D. in 1998. After graduation, he was a UNCF-Merck Fellow pursuing postdoctoral research fellow in the laboratory of Dr. Oliver Steinbock at Florida State University.

He currently works for Procter and Gamble in Cincinnati, Ohio.

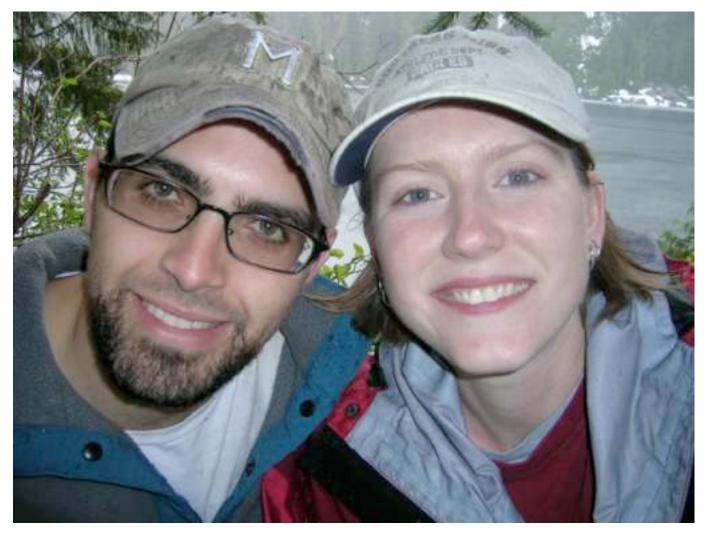


### Colin Whitmore (researcher, 2004-2005)

Kristi (Budzinski) and I are doing well here in Seattle. We're both in the third year of our chemistry PhD's. I'm studying glycosphingolipid metabolism in single cells; basically I feed a fluorescently labeled lipid to a neuron culture, let it metabolize for a couple of days, then separate the metabolites in a single cell with capillary electrophoresis and detect them with laser-induced fluorescence. We should have a couple papers out pretty soon.

Other than that, we're just enjoying the Northwest: hiking and kayaking in the summer, being cold and wet in the winter.





#### Victor Wyatt (Postdoctoral Researcher,

Victor T. Wyatt is a Research Chemist for the Agricultural Research Service (USDA) at the Eastern Regional Research Center in Wyndmoor, PA. He investigates new uses for glycerol, a co-product of the transesterification process to produce biodiesel by synthesizing novel hyperbranched oligomers and polymers designed for various industrial applications. Additionally, he synthesizes and determines fuel properties for animal fat-derived biodiesel for the purpose of determining if these feedstocks are a viable alternative to the more common soybean-based biodiesel.

Previously, he worked as a Research Associate at the University of Southern Mississippi (Hattiesburg, MS) where he assisted in developing a model to describe free radical polymerization while continuing to improve his skills as an organic/polymer chemist. Victor received a doctorate in Organic Chemistry, with minors in Analytical Chemistry and Polymer Chemistry, from The Georgia Institute of Technology (Atlanta, GA) in the areas of phase transfer catalysis, organic synthesis, and gas-expanded liquids. He also worked as an intern for Celanese (Corpus Christi, TX) during this time. While earning a BS in Chemistry at Jackson State University (Jackson, MS), he spent time as an intern at Ithica (NY) College, Florida State University, University of Wisconsin-Madison, and Dow Chemical (Midland, MI).

He is married to Sharritha Thigpen of Heidelberg, MS. They have no children.



# Brian Zoltowski (B. S. 2002; M.S. 2003)

Since leaving the Pojman lab I enrolled in the Tri-Institutional Program in Chemical Biology at Cornell/Rockefeller/Sloan-Kettering Institute to obtain a PhD in Chemistry and Biochemistry. I have been working in the Crane lab at Cornell University obtaining biochemical and structural information about photoreceptors involved in circadian clocks in various organisms.

In addition, my wife, Bridget Zoltowski, has been enrolled in law school at Syracuse University for the past 2 years. We plan on both graduating a year from May to pursue our professional careers.

