

Recognition...

NIH Panels - Faculty members who have volunteered to spend time reading a significant number of research proposals and spend a weekend doing so in Washington, D.C. include **Drs. Bill Baker, Randy Larsen, Abdul Malik, and David Merkler**. We are proud of their recognition and the service they provide.

Out and about...

Chemistry Building - the long-awaited renovation of the Chemistry Building was on schedule and a fall opening occurred. The blue jewel box is no more. The ends have been enclosed and some rooms have been enlarged and others shifted in size in an effort to produce a more efficient arrangement for teaching. Modern technology will be available in the classrooms. Offices will be available for the Department, the mail point will shift to CHE 205, and selected faculty and staff returned to the renovated building in mid-August.



The former CHE second floor breezeway.

Chemistry Department Document - The Department of Chemistry "**Governance Document**" was assembled by an *ad hoc* committee of **Drs. Randy Larsen** (Chair), **Julie Harmon, Rebecca O'Malley, David Merkler, Ellen Verdel, and Mike Zaworotko**. The document was reviewed by the entire faculty and went through several iterations and was approved at the end of the spring semester. The Document covers all significant procedures of departmental operations and is an important, extensive document. We are grateful to all who participated in the process.

Departure - Dr. Zaworotko announced with regret that Dr. Kyung Jung, Associate Professor of Chemistry, accepted a position at the University of Southern California leaving effective August 5th. He wrote, "On behalf of the Department, I have thanked Jung for his contributions and wished him continued success for the future."

REU Program - The Third annual Research Symposium on Nanoscience was hosted by the Integrated Interdisciplinary Nanoscience REU Program on Friday August 5th.



Students playing Ultimate Frisbee adjacent to the NES building

The invited speaker was **Dr. Christopher Murray**, Manager of Nanoscale Materials at IBM Corporation. His presentation was followed by lunch in the NES lobby and the Ten Nanoscience REU students presented posters on their summer research that has been supported by a grant from the National Science Foundation.

The students are undergraduates at Eckerd College (2), Columbia U., Lawrence U., Louisiana Tech., Jacksonville U., University of Puerto Rico-Mayaguez, Rutgers U and USF (2). Drs. Rosa Walsh and Patricia Muisener (assistant Chairs) coordinated the program.

Softball challenge - The Department of Chemistry Softball team, "The Elements" challenged the Freedom High School Lady Patriots for a fast-pitch softball game on May 18. The event was coordinated by Dr. Randy Larsen, and "The Elements" were organized by Mr. Gregg McManus. The team should be commended for their altruism in participating in this fund-raising event for the Lady Patriots.

Ultimate-Frisbee - a large group of graduate students (plus a few post-docs and some undergraduates) have been playing a weekly

game of Ultimate Frisbee in the field next to the NES Building for the past year. It is their way of getting some exercise and staying in shape. (It continues a long-time department tradition but is also safer than an earlier department tradition of playing Biology in touch football for a keg of beer as was done in the late 1960s). How many do you recognize from past *News* issues?

USF Research Park - the new buildings at the corner of Fowler Avenue and Spectrum Blvd. look ready for occupancy. One half is designed for start-up business and the other half for academic research that it is hoped will lead to new start-up businesses. We hear that the former half is full up and that Professor Daniel Lim (Biology) will be one of the occupants of the academic side.

Castle Student Research Conference - Award recipients for the various categories are listed on the Web page. Next year's faculty advisor will be Dr. Mohammed Eddaoudi.

You've been around a while if...

you remember when there was a coffee shop in the first floor (then called the "basement") of the Science Center. Speaking

of the conversion to laboratories, the Dean of Natural Sciences commented at the time that many outstanding universities were noted for the quality of their laboratories, but few were noted for the quality of their coffee shops. He was right, of course.

Faculty you should know...

Spotlight on...

Dr. Randy W. Larsen (Associate Professor of Chemistry) Associate Chair, also served as Chair of the (successful) Organic Chemist Search Committee last academic year, was asked for an autobiography.

“I was born in Prairie du Sac, Wisconsin in 1962. Shortly after I was born (several months) my father, who just started a position as a landscape architect with the U.S. Forest Service, after obtaining a B.S. degree in Agriculture from the University of Wisconsin, Madison, received his first position in Albuquerque, NM (on the Cibola National Forest). We lived in Albuquerque for roughly one year before my father was again transferred to Tucson, Arizona (Coronado National Forest) where we lived for roughly nine years. He was then transferred back to Albuquerque (back to the Cibola National Forest) where they live today.”

“I attended the University of New Mexico as an undergraduate receiving my B.S. in Chemistry in 1985. I worked briefly for the New Mexico Engineering Research Institute after graduation where my primary job was to quantify vanadyl porphyrin concentrations in asphalts from around the country using EPR. The focus of this Air Force funded project was to find a way to 1) recycle the asphalt from roads on military bases as a cost reduction measure and 2) find a way to produce ‘fast setting’ asphalt



Dr. Randy W. Larsen

for runway repairs. My results were to be correlated with what is known as an ‘aging index’ which seemed to me to be some highly suspect number related to the ‘quality’ of the asphalt. After six months of trying to get sticky, gooey, smelly asphalt into tiny EPR tubes and then quantifying the total spins I quit and went to graduate school at UNM. Actually, one of the faculty at UNM (Prof. Mark Ondrias) discovered I was working on porphyrins and recruited me to join his group. I spent the next four and a half years obtaining time resolved resonance Raman on a variety of heme proteins including cross-linked hemoglobins, peroxidases and cytochrome c oxidase (a protein we are still working on today!) as well as getting married and having my first child (Malorie)!! I received my Ph.D. in Chemistry in 1990.”

“During my Ph.D. work I spent a significant amount of time at the California Institute of Technology (Pasadena, CA) purifying cytochrome c oxidase. Although I hated these preps with a passion (grinding up 200

lbs of beef hearts in a cold room for a week!!!) I ended up with a postdoctoral fellowship at Cal. Tech. with Prof. Sunney Chan. After an amazing two years at Cal. Tech. (and a second child, Sean) I accepted a faculty position at the University of Hawai'i-Manoa in 1992. At UH my research focus initially was on utilizing time-resolved optical techniques to probe structure/function relationships in heme proteins with an emphasis on time-resolved circular dichroism (TRCD). After the first two years it became clear that TRCD was an extremely difficult technique from an experimental point of view being highly susceptible to a wide range of optical artifacts (this is why the steady state instruments cost so much!!!). I had recalled as a graduate student reading a paper by Kevin Peters at MIT on a little known technique called photoacoustic calorimetry. The Peters group applied this to CO photodissociation from horse heart myoglobin and were able to observe conformational transitions which were not seen using other methods. Since this method appeared to be very sensitive to protein conformational changes we decided to set up an instrument at UH. At first, my thought was that it would be expensive and difficult to get running. To my amazement, I built our original detector for ~\$75 in Radio Shack parts!!! It worked great and we continue to utilize this technique today (with a much fancier instrument, of course!). We then expanded the method to include photothermal beam deflection and transient absorption. Our focus then, and now, was to probe conformational dynamics and energetics of photo-triggered reactions in biological molecules including electron transfer, ligand binding and protein/peptide folding.”

“After 10 years in Hawai'i, the low salaries, micro-management by the State and the poor

relationships among the faculty in chemistry finally took its toll and my wife and I decided it might be time to relocate. It was a very difficult decision for me and my family since we loved Hawai'i and had great friends there. I made a request to UH to raise my salary but was denied. Off the record, I was told by a senior administrator that if I received a merit raise then ‘everyone would want one’ and the administration simply did not want to deal with this problem. Officially I was told my request was denied since I did ‘not meet the requirements’ for a merit raise. I was told that this was due to the fact that the College of Natural Sciences had no criteria; therefore I could never meet the criteria since the UH Contract stated that I had to ‘meet the criteria’ to receive the raise! This was the kind of circular non-sensical logic the permeated through the University of Hawai'i.”

“At this stage, we decided it was time to seriously explore options. I sent out applications to USF and the University of Houston just to test the waters. To my surprise I received interviews at both schools, U of H first, then USF. After my first visit to USF I withdrew from consideration at U of H. After an ‘interesting’ round of emails spanning two months in which I was told there were several candidates ‘tied’ for the same position, then some withdrew, offers were made to others, then they withdrew, a second visit etc. etc. I ended up with an offer from USF. With the reality of leaving Hawai'i starting to sink in, my wife and I pondered the offer. Fortunately, the faculty strike in 2001 helped with the final decision. We lost two weeks of salary to get a 3% raise after having 0% for the previous two years! They were the worst two weeks of my career! I was running my lab from my cell phone on the picket line. Jarka, my

postdoc, would bring me coffee and an occasional other cold malted beverage, and we would discuss results while ‘on the line’. I accepted the USF offer shortly after the strike ended.”

“To date, USF has been great. I have been very happy to be a part of a faculty that is energetic, dynamic and collegial (things that were clearly missing at UH). I foresee great things for this department in the future!”

New faculty members include...

Dr. K. Kenneth Caswell. Instructor, B.S. Loyola University Chicago, Ph.D. University of South Carolina. He previously served as an adjunct faculty member in our department.

Dr. Noel Dickson. Instructor, B.Sc (Hons) University of Newcastle, M.Sc. and Ph.D, Monash University. His previous experience includes Research Officer/Lecturer at the Green Centre for Chemistry at Monash (Melbourne), Chemistry Lecturer at the University of Sydney, and most recently service as a visiting professor in chemical education at CCU (South Carolina)



Mrs. Christine Bullard and husband Jody Roberts

Dr. Roman Manetsch. Assistant Professor, received a Diploma in Chemistry from the University of Basel, followed by a Ph.D. from Basel (2002). He comes to USF from a post-doctoral experience with Professor Barry Sharpless, W. M. Keck Professor of Chemistry at The Scripps Research Institute, La Jolla, CA.

Dr. Patricia Muisener. Lecturer, who has been at USF as a post-doctoral researcher and as an Assistant Chair. She will continue in a half-time position as Assistant Chair and half-time as an Instructor.

Staff members you should know...

Mrs. Christine Bullard-Roberts “In January 2005, I came to work for USF as the

Accountant of the Chemistry Department where I work with the grants and general accounting for the department.”

“I was born in Atlanta, GA and raised in the area called Chamblee 10 miles outside of Downtown where I attended Elementary and High School. I went to Mercer University in Atlanta. I worked 10 years for the Internal Revenue Service as a tax auditor for unreported income. I also worked five years in public accounting at a CPA firm in Downtown Atlanta preparing taxes and performing financial audits.”

“In May of 2000, I decided to change my career path out of tax accounting and went to work in the higher education field as a Sr. Accountant for Georgia Tech

University, in downtown Atlanta, in the Electrical Computer Engineering Department where I worked solely with grants from proposal preparation submission to managing the funds ending with submitting the final reports. In my spare time, I played tennis for the Atlanta Lawn and Tennis Association in competition play for women's doubles and co-ed doubles. My teammates and I won our Division three out of five years of playing together."

"In July 2004, I moved to Tampa with my fiancé for him to start his own computer software consulting company. In October 2004, we were married on Sand Key Beach in Clearwater. We currently live in Westchase. We have one dog, Amber (she is a Wheaten Terrier) and two cats, Chasca (she is a Blue Point Persian) and Tassy (she is a Calico Tabby). We spend most Saturdays taking Amber to the beach; she loves to swim in the water as does my husband. We attend Lifepoint Community Church in New Tampa where I teach tennis to interested members and my husband plays bass guitar in the Praise Band."

The joy of our present, the hope of our future

[a continuing series on current graduate students]

Vasiliki (Vicki) Lykourinou-Tibbs grew up in Athens Greece, and began chemistry studies at University of Crete ("home of the legendary Minoans"). Leaving the sunny shores of Greece for the tropical shores of Florida in 1998, she transferred to USF as a junior. She was graduated with a B.S. in Chemistry in the Spring of 2000. She wrote, "After one semester of undergraduate research under the inspiring supervision of Dr Li-June Ming studying the catalytic properties of transition metal complexes of functionalized resins I became very



Vasiliki (Vicki) Lykourinou-Tibbs

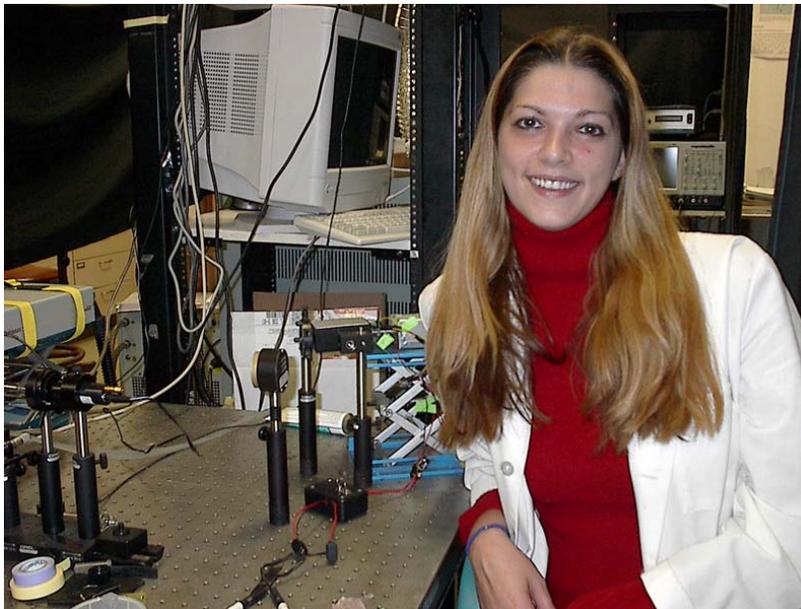
enthusiastic about research work and decided to pursue a graduate degree at USF. By then, the easy-going Floridian way of life convinced me that I can bear the humidity for few more years (!)" She was accepted in the Ph.D. program in Fall 2000 and continued working under the supervision of Dr Li-June Ming. The focus of her studies is the design and synthesis of polymer based transition metal catalysts able to carry out multiple functions such as degradation of persisting aromatic pollutants and nerve agents, DNA cleavage and oxidation of catecholamines through oxidative and hydrolytic mechanisms. She was the recipient of the Alexiou Award (Spring 2005) and is the co-author of two papers (in *Catalyst Communications* and in *Inorganica Chimica Acta*) and is working on additional manuscripts.

She added, "Apart from my graduate studies I am happily raising my daughter,

Dominique, and my son, Stefanos, with the help and support of my husband, Kirk.”

Dijana Lekic is Canadian, but was born and raised Bosnian. During the Bosnian civil war she and her family moved to Slovenia, where she attended secondary medicine school (she finished grade 11). In 1996, she and her family moved to Canada where she finished grade 12 and received an award in chemistry. She completed her undergraduate work majoring in chemistry and psychology, at Saint Mary's University. While there, she worked on a research project in computational chemistry, a geometry optimization using *ab-initio* calculations on the structure of neurotoxin called domoic acid that was responsible for amnesic shellfish poisoning in Canadian waters. This research was done in collaboration with Dr. Cory Pye.

She wrote, “I was very happy to find out about the graduate program in chemistry at University of South Florida and I decided to come and visit for the open house in February 2004. I was very impressed and decided to move to Florida (I love Canada, but I prefer sunshine at all times.)”



Dijana Leckic

She started graduate studies in biophysical chemistry in August 2004 under the supervision of Dr. Randy Larsen. The focus of her studies is to understand the mechanism through which proteins fold into their native conformation, which is of critical importance in understanding the molecular basis for wide range of diseases, including Alzheimer's disease, cystic fibrosis, "Mad Cow" disease, and some forms of cancer. The overall goal of the project is to utilize novel peptide synthesis (to make photo-initiable folding systems) and time-resolved photo-thermal methods (to determine time scales, activation barriers, and thermodynamic parameters) to construct volume, enthalpy, and structural profiles for protein folding.

The plan is to begin with small structured peptides and progress to larger, more complex peptide/protein systems, including novel caged peptides.

She concluded, “I'm very passionate about my work and I m very happy to be at USF. Of course, I miss my parents and my brother, Branko, but still they are very happy for me to be here and to be doing what I really love.” Her family lives in Halifax, Canada.

Alumni News

Heba Abourahma (Ph.D., '04) accepted a position as assistant professor of chemistry at Indiana University of Pennsylvania in Indiana, PA 15705, having completed a year of post-doctoral study at the

University of Iowa. Dr. Zaworotko was her major professor.

Kathleen Carvalho-Knighton (Ph.D.' 00) and her husband, **Anthony Knighton**, proudly announced the birth of their baby, James Edward Knighton II, who was born on July 12 at 11:11 pm at Morton Plant hospital (Clearwater). He weighed 7 lb 13 oz and was 21 inches long. Dr. Carvalho-Knighton is an assistant professor in Environmental Science and Policy at USF-St. Petersburg.

Dr. Eric Elmquist (B.S.'00) completed his Ph.D. requirements at Vanderbilt and is doing post-doctoral studies at MIT.

Bart A. Heldreth (Ph.D. '05) wrote in June "Hello! Amy [Heldreth, who served as Secretary of the Department of Chemistry Graduate Program] and I are truly enjoying Happy Valley.[Penn State University area] ... My research under Dr. Blake R. Peterson (<http://research.chem.psu.edu/brpgroup/grouphomepage.html>) is going extremely well. The primary focus of my research is on the synthesis and bio-screening of novel steroidal and non-steroidal antiandrogenic agents towards the treatment of prostate cancer (some of which I will be presenting at the Crossover 2005 Conference here at Penn State, October 13-14th). Amy is also doing well and is currently employed in the business office of a local retirement home." Dr. Turos was his major professor.

William A. Luer, M.D. (B.A.'72) "My memories are as follows: I remember using slide rules and losing mine one day when I left it in a Chemistry class room. When we had really involved calculations we had to go to a special lab where there were Wang calculators. I remember doing special projects in lab for one of Dr. Jurch's courses. One of the other students chose to isolate

orange oil. We all thought that was really neat but he had a tough time of it. I especially remember one final exam of Dr. Stevens. It was on a Saturday morning in the spring and the exam was a tough one, at least we thought so. Dr. Stevens was puffing on his pipe and it had gotten to be noon time, but most of us were still working. He asked, politely, but somewhat impatiently, whether or not we would be through soon. We all said "no" we were still working on his problems. He said "Darn, I wish you would hurry up and finish, I had kind of wished I could go to the ball game" (spring training for major league baseball). I turned in my paper, I hope he made it. He was a good teacher."

"As for what has happened since, after leaving USF in 1972, I moved to New Orleans to attend Tulane Medical School. There I earned an MD in 1976, and finished a Pathology Residency in 1980 at Charity Hospital in New Orleans. Since that time I have practiced pathology at West Jefferson Medical Center in Marrero, La, which is across the river from New Orleans. I also teach part time at Tulane Medical School in pathology, and play the violin professionally in The New Leviathan Oriental Fox-Trot Orchestra. I am married with three children. Over the years I try to make it down to Longboat Key to attend USF's cancer conference."

William B. Martin (Ph.D. '85) has been working for a number of years for the FDA in their Denver, Colorado facility where he is heavily involved with the mass spectrometry program. He has recently been promoted to be the overall director of one of the FDA's regional laboratory "megalabs" (one of five such facilities in the country). He will be based in Irvine, California. The facility is 133,000 Square feet and was featured in the March (2004) issue of

Architecture. While he was in the graduate program here, Bill was a recipient of the Ashford Fellowship (1984-5). He also did his undergraduate studies here at USF. After his PhD, he did a postdoctoral fellowship at the Johns Hopkins University at the National Science Foundation Centre for Mass Spectrometry, where he worked with Dr. Catherine Fenslau and Dr. Robert Cotter. Prior to joining the FDA he worked at Honeywell in Clearwater, also in the mass spectrometry division. Dr. O'Malley, his major professor, provided the helpful information.

Venkatraj V. Narayanan (M.S.'93 Ph.D. '97) is a research scientist in the Synthetic chemistry Laboratory of Hindustan Lever Research Center, Bangalore, India. He sent pictures of his son, Prathyoosh, now two years old, and himself (center shown flanked by his wife's brothers)

Faculty Friends

Dr. Jesse Binford (1961-2003) is enjoying retirement years in the Austin Texas area where they are near their grandchildren and where they have rediscovered old friends from the years that he held an appointment at the University of Texas.

Dr. Joseph Stanko (1973-2003) wrote that he and his wife have a new grandson (the son of their youngest, Mark, and his wife, Celina.) and they get to see him often because he and his parents live up the street in Temple Terrace.



Venkatraj V. Narayanan



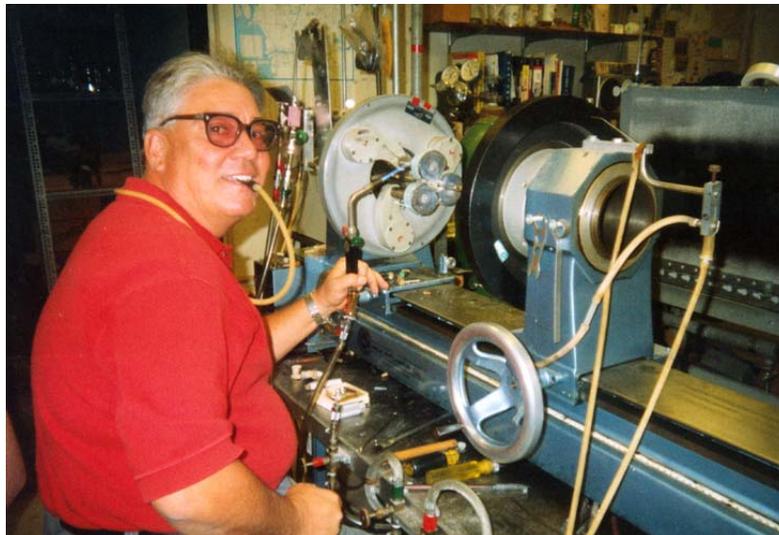
Dr. Narayanan's son, Prathyoosh

What are they up to?

Please look at our web page (“Graduate Alumni”) and see if you (and or your friends and fellow alumni) are accurately listed. It is hard to keep up with the growing list of alumni (would you believe over 275 graduate alumni). We would be grateful if you could bring us up-to-date on what you or some of your friends are doing.

Obituary

Michael P. Arias, 51, scientific glassblower for the Department for the past ten years passed away August 25th following a long, courageous battle with cancer. He was born in Bridgeport, Connecticut, and had moved to Florida about 15 years ago. He is survived by his wife, Rosa to whom he had been married for 28 years and who was his high school sweetheart. They had one daughter, Lena Rose. He was



Michael P. Arias

always cheerful and tried to be as helpful and considerate as possible, and he was beloved of the staff, faculty, and those he came in contact with. He will be missed immensely by all those who had the good fortune to know him well.

News and feedback

For additional information on faculty, staff, students, and programs, please see our Department Home Page:
<http://chemistry.usf.edu>

For past issues you may have missed, please see the Home Page.

And if you have news for us, please contact us at: dmartin@mail.cas.usf.edu